

Classified as a non-passenger vehicle (light truck), as required by Section 537.7(c)(5)

	(i)(A) Transport more than 10 persons	(i)(B) Temporary living quarters	(i)(C) Transport property on an open bed	(i)(D) Greater cargo-carrying than passenger- carrying volume	(i)(E) Permit expanded use for non-passenger carrying purposes	(ii)(A) 4- wheel drive	(ii)(B) GVW (lbs.)	(ii)(C)(1) Approach angle (deg.)	(ii)(C)(2) Breakover angle (deg.)	(ii)(C)(3) Departure angle (deg.)	(ii)(C)(4) Minimum running clearance (inch)	(ii)(C)(5) Axle clearance (inch)	
												Front	Rear
RAV4	No	No	No	No	No	YES	4658	19.0	18.0	21.0	8.4	10.1	10.4
RAV4 HYBRID	No	No	No	No	No	YES	4920	19.0	17.5	21.0	8.1	10.0	10.2
NX 300	No	No	No	No	No	YES	5200	28.4	15.9	24.0	6.3	9.0	9.7
NX 300h	No	No	No	No	No	YES	5335	28.4	15.9	24.0	6.3	9.0	9.7
HIGHLANDER	No	No	No	No	Yes	YES	5935	17.9	17.1	23.0	8.0	10.4	10.7
HIGHLANDER HYBRID	No	No	No	No	Yes	YES	6033	18.1	16.7	22.7	8.0	10.4	10.0
SIENNA	No	No	No	No	Yes	YES	5995	15.0	14.0	18.0	6.4	7.0	8.3
RX 350	No	No	No	No	No	YES	5860	17.0	16.8	24.9	8.2	9.6	9.8
RX 350 L	No	No	No	No	No	YES	5985	17.1	20.6	21.3	8.0	9.1	9.6
RX 450h	No	No	No	No	No	YES	6000	17.0	16.8	24.9	8.2	9.6	9.8
RX 450h L	No	No	No	No	No	YES	6200	17.1	20.6	21.3	8.0	9.1	9.6
TACOMA	No	No	Yes	Yes	No	YES	5600	29.0	20.0	23.1	9.4	9.1	8.1
4RUNNER	No	No	No	No	No	YES	6300	30.0	22.0	26.0	9.0	7.6	9.2
GX 460	No	No	No	No	No	YES	6600	22.0	21.0	24.0	8.1	8.7	9.1
TUNDRA	No	No	Yes	Yes	No	YES	7050	27.0	18.0	20.0	9.8	9.6	8.5
SEQUOIA	No	No	No	No	Yes	YES	7300	28.0	20.0	21.0	9.5	9.5	8.6
LAND CRUISER	No	No	No	No	No	YES	7385	30.0	23.0	20.0	8.9	9.6	8.9
LX 570	No	No	No	No	No	YES	7385	25.0	23.0	20.0	8.9	9.3	8.9

TABLE 1: Footprint Information (Domestically produced passenger automobiles)

Carline	Basic Engine	Transmission Class	BaseTire	Front Track Width	Rear Track Width	Average Track Width	Wheelbase	Footprint	Footprint sales
YARIS	P5	M6	P185/65 R15	58.8	58.4	58.6	101.2	41.2	641
YARIS	P5	S6-2	P185/65 R15	58.8	58.4	58.6	101.2	41.2	13230
CAMRY AWD LE/SE	A25A-FKS1	S8-1	235/45R18 AS	62.2	62.8	62.5	111.2	48.3	4028
CAMRY AWD LE/SE	A25A-FKS1	S8-1	215/55R17 AS	62.6	63.1	62.8	111.2	48.5	3444
CAMRY AWD XLE/XS	A25A-FKS1	S8-3	235/45R18 AS	62.2	62.7	62.4	111.2	48.2	860
CAMRY AWD XLE/XS	A25A-FKS1	S8-3	235/40R19 AS	62.2	62.8	62.5	111.2	48.3	1325
CAMRY LE/SE	A25A-FKS1	S8-1	235/45R18 AS	62.1	62.5	62.3	111.2	48.1	104280
CAMRY LE/SE	A25A-FKS1	S8-1	215/55R17 AS	62.6	62.9	62.8	111.2	48.5	58775
CAMRY XLE/XSE	A25A-FKS1	S8-3	235/40R19 AS	62.2	62.6	62.4	111.2	48.2	29780
CAMRY XLE/XSE	A25A-FKS1	S8-3	235/45R18 AS	62.2	62.5	62.4	111.2	48.2	7321
ES 350	2GR-FKS10	S8-3	215/55R17 AS	62.5	63.0	62.8	113.0	49.3	14911
ES 350	2GR-FKS10	S8-3	215/55R17 AS	62.9	63.3	63.1	113.0	49.5	5263
AVALON XLE	2GR-FKS11	S8-3	215/55R17 AS	63.0	63.4	63.2	113.0	49.6	2557
ES 350 F SPORT	2GR-FKS12	S8-3	235/40R19 AS	62.5	63.0	62.8	113.0	49.3	4216
AVALON	2GR-FKS2	S8-3	235/45R18 AS	62.6	63.1	62.8	113.0	49.3	3597
AVALON	2GR-FKS2	S8-3	235/40R19 AS	62.6	63.1	62.8	113.0	49.3	3563

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TABLE 2 MODEL TYPE FUEL ECONOMY (DOMESTICALLY PRODUCED PASSENGER AUTOMOBILES)

NO	CAR LINE	BASIC ENGINE LIT/FS/SD *1	TRANS CLASS *2	COMBINED F/E	PROJECTED SALES
1	YARIS	1.5/FI/FFS	M6	47.3	641
2	YARIS	1.5/FI/FFS	S6-2	49.7	13230
3	CAMRY AWD LE/SE	2.5/FI/FFS	S8-1	38.6	7472
4	CAMRY AWD XLE/XSE	2.5/FI/FFS	S8-3	38.4	2185
5	CAMRY LE/SE	2.5/FI/FFS	S8-1	43.4	163055
6	CAMRY XLE/XSE	2.5/FI/FFS	S8-3	42.5	37101
7	ES 350	3.5/FI/FFS	S8-3	34.0	20174
8	AVALON XLE	3.5/FI/FFS	S8-3	34.5	2557
9	ES 350 F SPORT	3.5/FI/FFS	S8-3	33.3	4216
10	AVALON	3.5/FI/FFS	S8-3	33.1	7160

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\*1 : SPECIAL DESCRIPTION

\*2 : THE NUMBER AFTER "-" INDICATES THE NUMBER OF TRANSMISSION MODE.

TABLE 3: Footprint Information (Non-domestically produced passenger automobiles)

Carline	Basic Engine	Transmission Class	BaseTire	Front Track Width	Rear Track Width	Average Track Width	Wheelbase	Footprint	Footprint sales	C
MIRAI	FCHV	AV-1	P215/55R17 AS	60.6	60.8	60.7	104.4	44.0	236	
PRIUS c	1NZ-FXE	AV-2 SS	P175/65R15 AS	58.4	58.0	58.2	100.4	40.6	1	
COROLLA	2ZR-FAE1	AV-1	195/65R15 AS	60.3	60.4	60.4	106.3	44.6	9426	
COROLLA	2ZR-FAE1	AV-1	205/55R16 AS	60.3	60.4	60.4	106.3	44.6	190004	
COROLLA	2ZR-FAE1	M6	195/65R15 AS	60.3	60.4	60.4	106.3	44.6	143	
COROLLA XLE	2ZR-FAE2	AV-2	205/55R16 AS	60.3	60.4	60.4	106.3	44.6	4596	
COROLLA HYBRID	2ZR-FXE1	AV-3 SS	195/65R15 AS	60.3	60.4	60.4	106.3	44.6	23767	
PRIUS	2ZR-FXE3	AV-3 SS	P215/45R17 AS	59.4	59.6	59.5	106.3	43.9	5194	
PRIUS	2ZR-FXE3	AV-3 SS	195/65R15 AS	60.3	60.4	60.4	106.3	44.6	9586	
PRIUS AWD	2ZR-FXE3	AV-3 SS	195/65R15 AS	60.3	60.4	60.4	106.3	44.6	8237	
PRIUS Eco	2ZR-FXE4	AV-3 SS	195/65R15 AS	60.3	60.4	60.4	106.3	44.6	2104	
PRIUS PRIME	2ZR-FXE5	AV-3 SS	P195/65R15 AS	60.2	60.5	60.4	106.3	44.6	20836	
86	2.0L	M6	215/40R18 SM	59.8	60.6	60.2	101.2	42.3	106	
86	2.0L	M6	215/45R17 SM	59.8	60.6	60.2	101.2	42.3	571	
86	2.0L	S6-2	215/45R17 SM	59.8	60.6	60.2	101.2	42.3	1357	
C-HR	3ZR-FAE	S7-3	225/50R18 AS	60.6	60.8	60.7	103.9	43.8	18879	
C-HR	3ZR-FAE	S7-3	215/60R17 AS	61.0	61.2	61.1	103.9	44.1	14428	
NX 300	8AR-FTS1	S6-3	225/60R18 AS	62.2	62.2	62.2	104.7	45.2	28641	
NX 300 AWD (w/ hitch)	8AR-FTS1-PV	S6-3	225/60R18 AS	62.2	62.2	62.2	104.7	45.2	147	
NX 300 AWD F SPORT	8AR-FTS2	S6-3	225/60R18 AS	62.2	62.2	62.2	104.7	45.2	4786	
IS 300	8AR-FTS3	S8-3	225/45R17 AS	60.4	61.1	60.8	110.2	46.5	5901	
RC 300	8AR-FTS3	S8-3	P235/45R18 AS	62.1	62.9	62.5	107.6	46.7	502	
COROLLA	M20A-FKS1	S10-2	225/40R18 AS	60.3	60.4	60.4	106.3	44.6	74711	
COROLLA HATCHBACK MANUAL	M20A-FKS1	M6	205/55R16 AS	60.3	60.8	60.6	103.9	43.7	2043	
COROLLA HATCHBACK	M20A-FKS2	S10-2	205/55R16 AS	60.3	60.8	60.6	103.9	43.7	9592	
COROLLA HATCHBACK XS	M20A-FKS3	S10-2	205/55R16 AS	60.3	60.8	60.6	103.9	43.7	2770	
UX 200	M20A-FKS4	S10-3	225/50RF18 RF-AS	60.9	61.0	61.0	103.9	44.0	3991	
COROLLA	M20A-FKS5	M6	225/40R18 AS	60.3	60.4	60.4	106.3	44.6	2646	

TABLE 3: Footprint Information (Non-domestically produced passenger automobiles)

Carline	Basic Engine	Transmission Class	BaseTire	Front Track Width	Rear Track Width	Average Track Width	Wheelbase	Footprint	Footprint sales	C
COROLLA XSE	M20A-FKS6	S10-2	225/40R18 AS	60.3	60.4	60.4	106.3	44.6	8781	
UX 250h	M20A-FXS	S6-3 SS	225/50RF18 RF-AS	60.9	61.0	61.0	103.9	44.0	69	
UX 250h AWD	M20A-FXS	S6-3 SS	225/50RF18 RF-AS	60.9	61.0	61.0	103.9	44.0	9026	
CAMRY	A25A-FKS2	S8-1	205/65R16 AS	62.9	63.3	63.1	111.2	48.7	823	
RAV4	A25A-FKS3	S8-3	235/55R19 AS	62.6	63.3	63.0	105.9	46.3	5472	
RAV4	A25A-FKS3	S8-3	225/65R17 AS	63.0	63.7	63.4	105.9	46.6	40054	
RAV4	A25A-FKS3	S8-3 SS	225/65R17 AS	63.0	63.7	63.4	105.9	46.6	62811	
CAMRY HYBRID LE	A25A-FXS1	S6-3 SS	205/65R16 AS	62.9	63.3	63.1	111.2	48.7	14070	
ES 300h	A25A-FXS1	S6-3 SS	215/55R17 AS	62.6	63.0	62.8	113.0	49.3	5026	
ES 300h	A25A-FXS1	S6-3 SS	215/55R17 AS	63.0	63.3	63.2	113.0	49.6	1288	
CAMRY HYBRID XLE/SE	A25A-FXS2	S6-3 SS	235/45R18 AS	62.1	62.6	62.4	111.2	48.2	9084	
CAMRY HYBRID XLE/SE	A25A-FXS2	S6-3 SS	235/45R18 AS	62.2	62.6	62.4	111.2	48.2	6605	
AVALON HYBRID	A25A-FXS3	S6-3 SS	235/45R18 AS	62.6	63.1	62.8	113.0	49.3	4853	
AVALON HYBRID XLE	A25A-FXS4	S6-3 SS	215/55R17 AS	62.9	63.5	63.2	113.0	49.6	1217	
LS 500	V35A-FTS	S10-4	245/50RF19 RF-SM	64.2	64.2	64.2	123.0	54.8	2290	
LS 500 AWD	V35A-FTS	S10-4	245/50RF19 RF-SM	64.2	64.2	64.2	123.0	54.8	1032	
CAMRY	2GR-FKS1	S8-3	235/45R18 AS	62.2	62.4	62.3	111.2	48.1	1180	
GS 350	2GR-FKS1	S8-3	235/45R18 SM	62.0	62.6	62.3	112.2	48.5	62	
GS 350 AWD	2GR-FKS1	S6-3	P235/45R18 AS	62.0	62.6	62.3	112.2	48.5	1090	
IS 300 AWD	2GR-FKS1	S6-3	225/45R17 AS	60.5	61.1	60.8	110.2	46.5	2114	
IS 350	2GR-FKS1	S8-3	255/35R18 AS	60.4	60.7	60.6	110.2	46.4	1589	
IS 350 AWD	2GR-FKS1	S6-3	255/35R18 AS	60.5	60.7	60.6	110.2	46.4	839	
RC 300 AWD	2GR-FKS1	S6-3	P235/45R18 AS	62.2	62.9	62.6	107.6	46.8	351	
RC 350	2GR-FKS1	S8-3	P235/45R18 AS	62.1	62.9	62.5	107.6	46.7	1103	
RC 350 AWD	2GR-FKS1	S6-3	P235/45R18 AS	62.2	62.9	62.6	107.6	46.8	435	
CAMRY TRD	2GR-FKS13	S8-3	235/40R19 SM	62.6	63.3	63.0	111.2	48.6	4474	
GS 350 F SPORT	2GR-FKS3	S8-3	265/35R19 SM	62.0	61.4	61.7	112.2	48.1	1276	
RX 350 AWD	2GR-FKS4-PV	S8-3	235/65R18 AS	64.6	64.6	64.6	109.8	49.3	7738	

TABLE 3: Footprint Information (Non-domestically produced passenger automobiles)

Carline	Basic Engine	Transmission Class	BaseTire	Front Track Width	Rear Track Width	Average Track Width	Wheelbase	Footprint	Footprint sales	C
RX 350	2GR-FKS6	S8-3	235/65R18 AS	64.6	64.6	64.6	109.8	49.3	25662	
CAMRY XSE	2GR-FKS8	S8-3	235/40R19 AS	62.2	62.6	62.4	111.2	48.2	5192	
RX 350 L	2GR-FKS9	S8-3	235/65R18 AS	64.6	64.6	64.6	109.8	49.3	4075	
RX 450h AWD	2GR-FXS2-PV	S6-3 SS	235/65R18 AS	64.6	64.6	64.6	109.8	49.3	2061	
LC 500h	8GR-FXS	S10-3 SS	275/40RF20 RF-SM	64.3	64.4	64.4	113.0	50.5	16	
LS 500h	8GR-FXS	S10-3 SS	245/50RF19 RF-SM	64.2	64.2	64.2	123.0	54.8	36	
LS 500h AWD	8GR-FXS	S10-3 SS	245/50RF19 RF-SM	64.2	64.2	64.2	123.0	54.8	42	
GS F	2UR-GSE	S8-3	275/35ZR19 SM	61.2	61.4	61.3	112.2	47.8	190	
LC 500	2UR-GSE	S10-4	275/40RF20 RF-SM	64.3	64.4	64.4	113.0	50.5	673	
RC F	2UR-GSE	S8-4	275/35ZR19 SM	61.2	61.4	61.3	107.6	45.8	444	
SUPRA	B58	S8 (Default)	255/40 R18 (Front) 275/40 R18 (Rear)	62.8	62.6	62.7	97.2	42.3	6015	

TABLE 4 MODEL TYPE FUEL ECONOMY (NON-DOMESTICALLY PRODUCED PASSENGER AUTOMOBILES)

NO	CAR LINE	BASIC ENGINE LIT/FS/SD *1	TRANS CLASS *2	COMBINED F/E	PROJECTED SALES
					<b>C</b>
1	MIRAI	FCV	AV-1	636.9	236
2	PRIUS c	1.5/FI/FFS	AV-2 SS	66.7	1
3	COROLLA	1.8/FI/FFS	AV-1	45.5	199430
4	COROLLA	1.8/FI/FFS	M6	45.5	143
5	COROLLA XLE	1.8/FI/FFS	AV-2	44.2	4596
6	COROLLA HYBRID	1.8/FI/FFS	AV-3 SS	77.2	23767
7	PRIUS	1.8/FI/FFS	AV-3 SS	73.2	14780
8	PRIUS AWD	1.8/FI/FFS	AV-3 SS	73.1	8237
9	PRIUS Eco	1.8/FI/FFS	AV-3 SS	80.8	2104
10	PRIUS PRIME	1.8/FI/FFS	AV-3 SS	146.6	20836
11	86	2.0/FI/FFS	M6	31.4	677
12	86	2.0/FI/FFS	S6-2	36.2	1357
13	C-HR	2.0/FI/FFS	S7-3	40.8	33307
14	NX 300	2.0/FI/FFS	S6-3	32.8	28641
15	NX 300 AWD (W/ HITCH)	2.0/FI/FFS	S6-3	32.2	147
16	NX 300 AWD F SPORT	2.0/FI/FFS	S6-3	31.4	4786
17	IS 300	2.0/FI/FFS	S8-3	32.1	5901
18	RC 300	2.0/FI/FFS	S8-3	32.1	502
19	COROLLA	2.0/FI/FFS	S10-2	47.4	74711
20	COROLLA HATCHBACK MANUAL	2.0/FI/FFS	M6	43.0	2043
21	COROLLA HATCHBACK	2.0/FI/FFS	S10-2	49.2	9592
22	COROLLA HATCHBACK XSE	2.0/FI/FFS	S10-2	45.7	2770
23	UX 200	2.0/FI/FFS	S10-3	44.6	3991
24	COROLLA	2.0/FI/FFS	M6	43.6	2646
25	COROLLA XSE	2.0/FI/FFS	S10-2	46.5	8781

TABLE 4 MODEL TYPE FUEL ECONOMY (NON-DOMESTICALLY PRODUCED PASSENGER AUTOMOBILES)

NO	CAR LINE	BASIC ENGINE LIT/FS/SD *1	TRANS CLASS *2	COMBINED F/E	PROJECTED SALES
					<b>C</b>
26	UX 250h	2.0/FI/FFS	S6-3 SS	58.9	69
27	UX 250h AWD	2.0/FI/FFS	S6-3 SS	55.5	9026
28	CAMRY	2.5/FI/FFS	S8-1	46.8	823
29	RAV4	2.5/FI/FFS	S8-3	40.6	45526
30	RAV4	2.5/FI/FFS	S8-3 SS	41.4	62811
31	CAMRY HYBRID LE	2.5/FI/FFS	S6-3 SS	71.8	14070
32	ES 300h	2.5/FI/FFS	S6-3 SS	60.3	6314
33	CAMRY HYBRID XLE/SE	2.5/FI/FFS	S6-3 SS	62.9	15689
34	AVALON HYBRID	2.5/FI/FFS	S6-3 SS	59.3	4853
35	AVALON HYBRID XLE	2.5/FI/FFS	S6-3 SS	61.1	1217
36	SUPRA	3.0/FI/FFS	S8	35.4	6015
37	LS 500	3.4/FI/FFS	S10-4	30.0	2290
38	LS 500 AWD	3.4/FI/FFS	S10-4	27.5	1032
39	CAMRY	3.5/FI/FFS	S8-3	34.9	1180
40	GS 350	3.5/FI/FFS	S8-3	30.0	62
41	GS 350 AWD	3.5/FI/FFS	S6-3	28.3	1090
42	IS 300 AWD	3.5/FI/FFS	S6-3	28.3	2114
43	IS 350	3.5/FI/FFS	S8-3	30.0	1589
44	IS 350 AWD	3.5/FI/FFS	S6-3	28.3	839
45	RC 300 AWD	3.5/FI/FFS	S6-3	28.3	351
46	RC 350	3.5/FI/FFS	S8-3	30.0	1103
47	RC 350 AWD	3.5/FI/FFS	S6-3	28.3	435
48	CAMRY TRD	3.5/FI/FFS	S8-3	33.4	4474
49	GS 350 F SPORT	3.5/FI/FFS	S8-3	28.6	1276



TABLE 4 MODEL TYPE FUEL ECONOMY (NON-DOMESTICALLY PRODUCED PASSENGER AUTOMOBILES)

NO	CAR LINE	BASIC ENGINE LIT/FS/SD *1	TRANS CLASS *2	COMBINED F/E	PROJECTED SALES
50	RX 350 AWD	3.5/FI/FFS	S8-3	28.6	7738
51	RX 350	3.5/FI/FFS	S8-3	29.8	25662
52	CAMRY XSE	3.5/FI/FFS	S8-3	34.1	5192
53	RX 350 L	3.5/FI/FFS	S8-3	28.9	4075
54	RX 450h AWD	3.5/FI/FFS	S6-3 SS	40.9	2061
55	LC 500h	3.5/FI/FFS	S10-3 SS	40.8	16
56	LS 500h	3.5/FI/FFS	S10-3 SS	38.2	36
57	LS 500h AWD	3.5/FI/FFS	S10-3 SS	34.5	42
58	GS F	5.0/FI/FFS	S8-3	23.8	190
59	LC 500	5.0/FI/FFS	S10-4	24.1	673
60	RC F	5.0/FI/FFS	S8-4	24.7	444

**C**

\*1 : SPECIAL DESCRIPTION

\*2 : THE NUMBER AFTER "-" INDICATES THE NUMBER OF TRANSMISSION MODE.

TABLE 5: Footprint Information (Light Truck)

Carline	Basic Engine	Transmission Class	BaseTire	Front Track Width	Rear Track Width	Average Track Width	Wheelbase	Footprint	Footprint sales
HIGHLANDER HYBRID	A25A-FXS5	S6-3 SS	235/55R20 AS	65.3	65.4	65.4	112.2	51.0	2374
HIGHLANDER HYBRID	A25A-FXS5	S6-3 SS	235/65R18 AS	65.3	65.4	65.4	112.2	51.0	3141
TACOMA 2WD	2TR-FE	S6-2	P245/75R16 AS	63.0	63.2	63.1	127.4	55.8	25889
HIGHLANDER	2GR-FKS4	S8-3	235/65R18 AS	65.3	65.3	65.3	112.2	50.9	92
HIGHLANDER	2GR-FKS4	S8-3	235/55R20 AS	65.3	65.4	65.4	112.2	51.0	0
HIGHLANDER	2GR-FKS4	S8-3	235/65R18 AS	65.3	65.4	65.4	112.2	51.0	0
HIGHLANDER	2GR-FKS4	S8-3 SS	235/65R18 AS	65.3	65.3	65.3	112.2	50.9	7860
HIGHLANDER	2GR-FKS4	S8-3 SS	235/55R20 AS	65.3	65.4	65.4	112.2	51.0	7417
HIGHLANDER	2GR-FKS4	S8-3 SS	235/65R18 AS	65.3	65.4	65.4	112.2	51.0	14094
SIENNA	2GR-FKS4	S8-2	P235/50R19 AS	67.7	67.5	67.6	119.3	56.0	2940
SIENNA	2GR-FKS4	S8-2	P235/60R17 AS	67.7	67.5	67.6	119.3	56.0	43647
TACOMA 2WD	2GR-FKS4	S6-2	P245/75R16 AS	63.0	63.2	63.1	127.4	55.8	30308
TACOMA 2WD	2GR-FKS4	S6-2	P265/60R18 AS	63.3	63.6	63.4	127.4	56.1	398
TACOMA 2WD	2GR-FKS4	S6-2	P245/75R16 AS	63.0	63.2	63.1	140.6	61.6	3959
TACOMA 2WD	2GR-FKS4	S6-2	P265/60R18 AS	63.3	63.6	63.4	140.6	61.9	0
4RUNNER 2WD	1GR-FE	S5-1	P265/70R17 AS	63.2	63.2	63.2	109.8	48.2	13810
SEQUOIA 2WD	3UR-FE	S6-1	P275/55R20 AS	67.9	69.1	68.5	122.0	58.0	583
SEQUOIA 2WD	3UR-FE	S6-1	P275/65R18 AS	67.9	69.1	68.5	122.0	58.0	240
TUNDRA 2WD	3UR-FE	S6-1	P275/55R20 AS	67.9	67.9	67.9	145.7	68.7	2227
TUNDRA 2WD	3UR-FE	S6-1	P255/70R18 AS	67.9	67.9	67.9	145.7	68.7	11946
TUNDRA 2WD	3UR-FE	S6-1	P255/70R18 AS	67.9	67.9	67.9	164.6	77.6	451
NX 300 AWD	8AR-FTS1	S6-3	225/60R18 AS	62.2	62.2	62.2	104.7	45.2	18286
NX 300h AWD	2AR-FXE3	S6-3 SS	225/60R18 AS	62.2	62.2	62.2	104.7	45.2	11031
RAV4 AWD	A25A-FKS3	S8-3	235/55R19 AS	62.6	63.3	63.0	105.9	46.3	10626
RAV4 AWD	A25A-FKS3	S8-3 SS	225/65R17 AS	63.0	63.7	63.4	105.9	46.6	61229
RAV4 AWD TRD OFFROAD	A25A-FKS4	S8-3	225/60R18 AS	63.0	63.7	63.4	105.9	46.6	5599
RAV4 AWD LE	A25A-FKS5	S8-3 SS	225/65R17 AS	63.0	63.7	63.4	105.9	46.6	34780
HIGHLANDER HYBRID AWD	A25A-FXS5	S6-3 SS	235/65R18 AS	65.3	65.4	65.4	112.2	51.0	10410
RAV4 HYBRID AWD	A25A-FXS5	S6-3 SS	225/60R18 AS	63.0	63.7	63.4	105.9	46.6	18193
RAV4 HYBRID AWD	A25A-FXS5	S6-3 SS	225/65R17 AS	63.0	63.7	63.4	105.9	46.6	68505
HIGHLANDER HYBRID AWD LTD/PLAT	A25A-FXS6	S6-3 SS	235/55R20 AS	65.3	65.4	65.4	112.2	51.0	10163

TABLE 5: Footprint Information (Light Truck)

Carline	Basic Engine	Transmission Class	BaseTire	Front Track Width	Rear Track Width	Average Track Width	Wheelbase	Footprint	Footprint sales	C
TACOMA 4WD	2TR-FE	S6-2	P245/75R16 AS	63.0	63.2	63.1	127.4	55.8	4942	
HIGHLANDER AWD	2GR-FKS4	S8-3 SS	235/55R20 AS	65.3	65.4	65.4	112.2	51.0	15182	
HIGHLANDER AWD	2GR-FKS4	S8-3 SS	235/65R18 AS	65.3	65.4	65.4	112.2	51.0	32914	
RX 350 AWD	2GR-FKS4	S8-3	235/65R18 AS	64.6	64.6	64.6	109.8	49.3	25418	
SIENNA AWD	2GR-FKS4	S8-2	235/55RF18 RF-AS	67.7	67.6	67.6	119.2	56.0	2484	
SIENNA AWD	2GR-FKS4	S8-2	235/55RF18 RF-AS	67.7	67.6	67.6	119.3	56.0	10274	
TACOMA 4WD	2GR-FKS4	M6	P245/75R16 AS	63.0	63.2	63.1	127.4	55.8	2556	
TACOMA 4WD	2GR-FKS4	S6-2	P245/75R16 AS	63.0	63.2	63.1	127.4	55.8	88250	
TACOMA 4WD	2GR-FKS4	S6-2	P265/60R18 AS	63.3	63.6	63.4	127.4	56.1	2712	
TACOMA 4WD	2GR-FKS4	S6-2	P265/65R17 AS	63.0	63.2	63.1	140.6	61.6	0	
TACOMA 4WD	2GR-FKS4	S6-2	P245/75R16 AS	63.0	63.2	63.1	140.6	61.6	17222	
TACOMA 4WD D-CAB MT TRD-ORP/PF	2GR-FKS5	M6	265/70R16 OFF	63.3	63.6	63.4	127.4	56.1	4543	
RX 350 L AWD	2GR-FKS9	S8-3	235/65R18 AS	64.6	64.6	64.6	109.8	49.3	4681	
RX 450h AWD	2GR-FXS2	S6-3 SS	235/65R18 AS	64.6	64.6	64.6	109.8	49.3	8751	
RX 450h L AWD	2GR-FXS2CAFE	S6-3 SS	235/65R18 AS	64.6	64.6	64.6	109.8	49.3	1983	
4RUNNER 4WD	1GR-FE	S5-1	P265/70R17 AS	63.2	63.2	63.2	109.8	48.2	89206	
GX 460	1UR-FE	S6-1	P265/60R18 AS	62.3	62.4	62.4	109.8	47.6	23838	
LAND CRUISER WAGON 4WD	3UR-FE	S8-2	285/60R18 AS	64.9	64.7	64.8	112.2	50.5	2373	
LX 570	3UR-FE	S8-3	285/50R20 AS	64.8	64.6	64.7	112.2	50.4	3845	
SEQUOIA 4WD	3UR-FE	S6-1	P275/55R20 AS	67.9	69.1	68.5	122.0	58.0	1846	
SEQUOIA 4WD	3UR-FE	S6-1	P275/65R18 AS	67.9	69.1	68.5	122.0	58.0	2772	
TUNDRA 4WD	3UR-FE	S6-1	P275/55R20 AS	67.9	67.9	67.9	145.7	68.7	22745	
TUNDRA 4WD	3UR-FE	S6-1	P255/70R18 AS	67.9	67.9	67.9	145.7	68.7	42427	
TUNDRA 4WD	3UR-FE	S6-1	P255/70R18 AS	67.9	67.9	67.9	164.6	77.6	1144	

TABLE 6 MODEL TYPE FUEL ECONOMY (LIGHT TRUCKS)



(1) 2WD

NO	CAR LINE	BASIC ENGINE LIT/FS/SD *1	TRANS CLASS *2	COMBINED F/E	PROJECTED C
1	HIGHLANDER HYBRID	2.5/FI/FFS	S6-3 SS	48.8	5515
2	TACOMA 2WD	2.7/FI/FFS	S6-2	27.7	25889
3	HIGHLANDER	3.5/FI/FFS	S8-3	30.1	92
4	HIGHLANDER	3.5/FI/FFS	S8-3 SS	31.4	29371
5	SIENNA	3.5/FI/FFS	S8-2	28.4	46587
6	TACOMA 2WD	3.5/FI/FFS	S6-2	27.0	34665
7	4RUNNER 2WD	4.0/FI/FFS	S5-1	23.5	13810
8	SEQUOIA 2WD	5.7/FI/FFS	S6-1	18.9	823
9	TUNDRA 2WD	5.7/FI/FFS	S6-1	19.1	14624

\*1 : SPECIAL DESCRIPTION

\*2 : THE NUMBER AFTER "-" INDICATES THE NUMBER OF TRANSMISSION MODE.



TABLE 6 MODEL TYPE FUEL ECONOMY (LIGHT TRUCKS)

(2) 4WD

NO	CAR LINE	BASIC ENGINE LIT/FS/SD *1	TRANS CLASS *2	COMBINED F/E	PROJECTED C
10	NX 300 AWD	2.0/FI/FFS	S6-3	32.6	18286
11	NX 300h AWD	2.5/FI/FFS	S6-3 SS	43.5	11031
12	RAV4 AWD	2.5/FI/FFS	S8-3	37.9	10626
13	RAV4 AWD	2.5/FI/FFS	S8-3 SS	39.7	61229
14	RAV4 AWD TRD OFFROAD	2.5/FI/FFS	S8-3	36.9	5599
15	RAV4 AWD LE	2.5/FI/FFS	S8-3 SS	40.5	34780
16	HIGHLANDER HYBRID AWD	2.5/FI/FFS	S6-3 SS	47.1	10410
17	RAV4 HYBRID AWD	2.5/FI/FFS	S6-3 SS	55.8	86698
18	HIGHLANDER HYBRID AWD LTD/PLAT	2.5/FI/FFS	S6-3 SS	47.7	10163
19	TACOMA 4WD	2.7/FI/FFS	S6-2	26.2	4942
20	HIGHLANDER AWD	3.5/FI/FFS	S8-3 SS	30.0	48096
21	RX 350 AWD	3.5/FI/FFS	S8-3	28.7	25418
22	SIENNA AWD	3.5/FI/FFS	S8-2	26.2	12758
23	TACOMA 4WD	3.5/FI/FFS	M6	24.0	2556
24	TACOMA 4WD	3.5/FI/FFS	S6-2	25.9	108184
25	TACOMA 4WD D-CAB MT TRD-ORP/PRO	3.5/FI/FFS	M6	23.8	4543
26	RX 350 L AWD	3.5/FI/FFS	S8-3	27.8	4681
27	RX 450h AWD	3.5/FI/FFS	S6-3 SS	40.8	8751
28	RX 450h L AWD	3.5/FI/FFS	S6-3 SS	39.4	1983
29	4RUNNER 4WD	4.0/FI/FFS	S5-1	22.7	89206
30	GX 460	4.6/FI/FFS	S6-1	20.9	23838
31	LAND CRUISER WAGON 4WD	5.7/FI/FFS	S8-2	18.5	2373
32	LX 570	5.7/FI/FFS	S8-3	18.1	3845
33	SEQUOIA 4WD	5.7/FI/FFS	S6-1	18.3	4618
34	TUNDRA 4WD	5.7/FI/FFS	S6-1	18.5	66316

\*1 : SPECIAL DESCRIPTION

\*2 : THE NUMBER AFTER "-" INDICATES THE NUMBER OF TRANSMISSION MODE.











Offcycle total credits

Select Model Year:	2020
Select Report:	Mid-Model Year Report

July, 2020

\*\*\* [Redacted]

Total of Off Cycle Credits 2-6 and Column 13

	2)	3)	4)	5)	6)-1	6)-2	6)-3	6)-4	7)	8)			BB. Total Off-Cycle Credits for the Model Year (megagrams) [Σ L]	CC. Total Off-Cycle Credits for the Model Year (gal/ mi) [Σ L]	Production volume of the category	Vehicle Lifetime Miles
	High efficiency lights	Active aerodynamic improvements	Start & Stop	Active transmission/Engine warm up	[Thermal control] Thermal control glass/glazing	[Thermal control] Active Seat ventilation	[Thermal control] Solar reflective surface coating	[Thermal control] Passive cabin ventilation	High Efficiency Alternator	SAS compressor	Total of Thermal control tech. (before Cap)	Total of Thermal control tech. (after Cap)				
<b>Domestic Car Totals for the Model Year:</b>	28,652	0	0	75,318	34,598	6,082	3,944	80,959	19,052	8,194	125,580	121,514	252,730	0.000564952	257791	195264
<b>Import Car Totals for the Model Year:</b>	85,071	17,246	78,498	106,855	106,876	21,027	18,673	223,083	39,620	11,830	369,671	347,968	687,089	0.000578564	684359	195264
<b>Truck Totals for the Model Year:</b>	75,915	13,831	247,346	350,031	333,061	78,451	24,877	426,317	54,885	3,119	862,714	777,105	1,522,233	0.000911159	832306	225865

# Model Year Report - Off-Cycle Technology Credits Earned - page 1 of 3

## Manufacturer: TOYOTA Item: High efficiency lights

July, 2020

OMB Control Number 2060-0644  
Expires 10-31-2013

Select Model Year:	2020
Select Report:	Mid-Model Year Report
Select Program:	Primary (non-TLAAS)
Select Fleet:	Cars & Trucks

AA. Total production volume generating credits [Σ J]

BB. Total Off-Cycle Credits for the Model Year (megagrams) [Σ L]

Domestic Car Totals for the Model Year:	243,920
Import Car Totals for the Model Year:	684,212
Truck Totals for the Model Year:	832,306

28,652
85,071
75,915

Instructions Notes

\*\*\*\*

Model Type Information				Off Cycle Technology					Production	Credits Generated		M. Comments
A. Carline Name	B. Drive	C. Engine	D. Trans	E. Description	F. Type of Testing (5-cycle or Other)	G. Date Announced in Federal Register	H. Date of EPA Approval	I. Initial Model Year Credits can be Generated	J. Production volume (generating credits)	K. Off-Cycle CREE benefit1 (per vehicle) [round to 0.1]	L. Off-cycle credits [calc per 86.1866-12 (d)(2)(iii)]	
									units	gpm	megagrams	
AVALON	FF	3.5	S8-3	High efficiency lights	Pre-approved list	NA	NA	14MY	4,476	0.1	87	195,264
AVALON	FF	3.5	S8-3	High efficiency lights	Pre-approved list	NA	NA	14MY	2,684	0.5	262	195,264
AVALON XLE	FF	3.5	S8-3	High efficiency lights	Pre-approved list	NA	NA	14MY	2,557	0.5	250	195,264
CAMRY AWD LE/SE	4WD	2.5	S8-3	High efficiency lights	Pre-approved list	NA	NA	14MY	7,472	0.6	875	195,264
CAMRY AWD XLE/XSE	4WD	2.5	S8-3	High efficiency lights	Pre-approved list	NA	NA	14MY	2,185	0.7	299	195,264
CAMRY LE/SE	FF	2.5	S8-1	High efficiency lights	Pre-approved list	NA	NA	14MY	163,055	0.6	19,103	195,264
CAMRY XLE/XSE	FF	2.5	S8-3	High efficiency lights	Pre-approved list	NA	NA	14MY	37,101	0.7	5,071	195,264
ES 350	FF	3.5	S8-3	High efficiency lights	Pre-approved list	NA	NA	14MY	1,045	0.3	61	195,264
ES 350	FF	3.5	S8-3	High efficiency lights	Pre-approved list	NA	NA	14MY	19,129	0.6	2,241	195,264
ES 350 F SPORT	FF	3.5	S8-3	High efficiency lights	Pre-approved list	NA	NA	14MY	1,568	0.3	92	195,264
ES 350 F SPORT	FF	3.5	S8-3	High efficiency lights	Pre-approved list	NA	NA	14MY	2,648	0.6	310	195,264

Vehicle Lifetime Miles [column O]

①	②	③	④	⑤	⑥	⑦	⑧	⑨	
Low beam	High beam	Parking/position	Turn signal, front	Side marker, front	Tail	Turn signal, rear	Side marker, rear	License plate	□ - □ total
0.38	0.05	0.10	0.06	0.06	0.10	0.06	0.06	0.08	0.95
Final credit (if all components are equipped, the credit is 1.0)									
round to 0.1									

# Model Year Report - Off-Cycle Technology Credits Earned - page 2 of 3

## Manufacturer: TOYOTA Item: High efficiency lights

\*\*\*\*

Model Type Information				Off Cycle Technology					Production	Credits Generated		M. Comments
A. Carline Name	B. Drive	C. Engine	D. Trans	E. Description	F. Type of Testing (5-cycle or Other)	G. Date Announced in Federal Register	H. Date of EPA Approval	I. Initial Model Year Credits can be Generated	J. Production volume (generating credits)	K. Off-Cycle CREE benefit1 (per vehicle) [round to 0.1]	L. Off-cycle credits [calc per 86.1866-12 (d)(2)(iii)]	
									units	gpm	megagrams	
86	FR	2	M6	High efficiency lights	Pre-approved list	NA	NA	14MY	677	0.7	93	195,264
86	FR	2	S6-2	High efficiency lights	Pre-approved list	NA	NA	14MY	1,357	0.7	185	195,264
AVALON HYBRID	FF	2.5	HV	High efficiency lights	Pre-approved list	NA	NA	14MY	4,009	0.1	78	195,264
AVALON HYBRID	FF	2.5	HV	High efficiency lights	Pre-approved list	NA	NA	14MY	844	0.5	82	195,264
AVALON HYBRID XLE	FF	2.5	HV	High efficiency lights	Pre-approved list	NA	NA	14MY	1,217	0.5	119	195,264
CAMRY	FF	2.5	S8-1	High efficiency lights	Pre-approved list	NA	NA	14MY	823	0.6	96	195,264
CAMRY	FF	3.5	S8-3	High efficiency lights	Pre-approved list	NA	NA	14MY	1,180	0.7	161	195,264
CAMRY HYBRID LE	FF	2.5	HV	High efficiency lights	Pre-approved list	NA	NA	14MY	14,070	0.6	1,648	195,264
CAMRY HYBRID XLE/SE	FF	2.5	HV	High efficiency lights	Pre-approved list	NA	NA	14MY	6,605	0.6	774	195,264
CAMRY HYBRID XLE/SE	FF	2.5	HV	High efficiency lights	Pre-approved list	NA	NA	14MY	9,084	0.7	1,242	195,264
CAMRY TRD	FF	3.5	S8-3	High efficiency lights	Pre-approved list	NA	NA	14MY	4,474	0.6	524	195,264
CAMRY XSE	FF	3.5	S8-3	High efficiency lights	Pre-approved list	NA	NA	14MY	5,192	0.7	710	195,264
C-HR	FF	2	S7-3	High efficiency lights	Pre-approved list	NA	NA	14MY	30,240	0.6	3,543	195,264
C-HR	FF	2	S7-3	High efficiency lights	Pre-approved list	NA	NA	14MY	3,067	0.7	419	195,264
COROLLA	FWD	1.8	AV-1	High efficiency lights	Pre-approved list	NA	NA	14MY	199,430	0.6	23,365	195,264
COROLLA	FWD	1.8	M6	High efficiency lights	Pre-approved list	NA	NA	14MY	143	0.6	17	195,264
COROLLA	FWD	2	M6	High efficiency lights	Pre-approved list	NA	NA	14MY	2,646	0.7	362	195,264
COROLLA	FWD	2	S10-2	High efficiency lights	Pre-approved list	NA	NA	14MY	74,711	0.7	10,212	195,264
COROLLA HATCHBACK	FF	2	S10-3	High efficiency lights	Pre-approved list	NA	NA	14MY	9,592	0.6	1,124	195,264
COROLLA HATCHBACK MANUAL	FF	2	M6	High efficiency lights	Pre-approved list	NA	NA	14MY	2,043	0.6	239	195,264
COROLLA HATCHBACK XSE	FF	2	S10-3	High efficiency lights	Pre-approved list	NA	NA	14MY	2,770	0.6	325	195,264
COROLLA HYBRID	FWD	1.8	HV	High efficiency lights	Pre-approved list	NA	NA	14MY	6,605	0.6	774	195,264
COROLLA XLE	FWD	1.8	AV-2	High efficiency lights	Pre-approved list	NA	NA	14MY	9,084	0.7	1,242	195,264

Vehicle Lifetime Miles [column O]

①	②	③	④	⑤	⑥	⑦	⑧	⑨	
Low beam	High beam	Parking/position	Turn signal, front	Side marker, front	Tail	Turn signal, rear	Side marker, rear	License plate	□ - □ total
0.38	0.05	0.10	0.06	0.06	0.10	0.06	0.06	0.08	0.95
Final credit (if all components are equipped, the credit is 1.0)									
round to 0.1									



HIGHLANDER	FWD	3.5	S8-3 SS	High efficiency lights	Pre-approved list	NA	NA	14MY	7,417	0.5	838	
HIGHLANDER AWD	4WD	3.5	S8-3 SS	High efficiency lights	Pre-approved list	NA	NA	14MY	32,914	0.4	2,974	
HIGHLANDER AWD	4WD	3.5	S8-3 SS	High efficiency lights	Pre-approved list	NA	NA	14MY	15,182	0.5	1,715	
HIGHLANDER HYBRID	FWD	2.5	HV	High efficiency lights	Pre-approved list	NA	NA	14MY	3,141	0.4	284	
HIGHLANDER HYBRID	FWD	2.5	HV	High efficiency lights	Pre-approved list	NA	NA	14MY	2,374	0.5	268	
HIGHLANDER HYBRID AWD	4WD	2.5	HV	High efficiency lights	Pre-approved list	NA	NA	14MY	10,410	0.4	941	
HIGHLANDER HYBRID AWD LTD/PLAT	4WD	2.5	HV	High efficiency lights	Pre-approved list	NA	NA	14MY	10,163	0.5	1,148	
LAND CRUISER WAGON 4WD	4WD	5.7	S8-2	High efficiency lights	Pre-approved list	NA	NA	14MY	2,373	0.7	375	
LX 570	4WD	5.7	S8-3	High efficiency lights	Pre-approved list	NA	NA	14MY	3,845	0.6	521	
NX 300 AWD	4WD	2	S6-3	High efficiency lights	Pre-approved list	NA	NA	14MY	251	0.2	11	
NX 300 AWD	4WD	2	S6-3	High efficiency lights	Pre-approved list	NA	NA	14MY	18,035	0.6	2,444	
NX 300H AWD	4WD	2.5	HV	High efficiency lights	Pre-approved list	NA	NA	14MY	178	0.2	8	
NX 300H AWD	4WD	2.5	HV	High efficiency lights	Pre-approved list	NA	NA	14MY	10,853	0.6	1,471	
RAV4 AWD	4WD	2.5	S8-3	High efficiency lights	Pre-approved list	NA	NA	14MY	10,626	0.7	1,680	
RAV4 AWD	4WD	2.5	S8-3 SS	High efficiency lights	Pre-approved list	NA	NA	14MY	61,229	0.7	9,681	
RAV4 AWD LE	4WD	2.5	S8-3 SS	High efficiency lights	Pre-approved list	NA	NA	14MY	34,780	0.7	5,499	
RAV4 AWD TRD OFFROAD	4WD	2.5	S8-3	High efficiency lights	Pre-approved list	NA	NA	14MY	5,599	0.7	885	
RAV4 HYBRID AWD	4WD	2.5	HV	High efficiency lights	Pre-approved list	NA	NA	14MY	13,031	0.7	2,060	
RAV4 HYBRID AWD	4WD	2.5	HV	High efficiency lights	Pre-approved list	NA	NA	14MY	73,667	0.8	13,311	
RX 350 AWD	4WD	3.5	S8-3	High efficiency lights	Pre-approved list	NA	NA	14MY	1,868	0.2	84	
RX 350 AWD	4WD	3.5	S8-3	High efficiency lights	Pre-approved list	NA	NA	14MY	23,550	0.6	3,191	
RX 350 L AWD	4WD	3.5	S8-3	High efficiency lights	Pre-approved list	NA	NA	14MY	347	0.2	16	
RX 350 L AWD	4WD	3.5	S8-3	High efficiency lights	Pre-approved list	NA	NA	14MY	4,334	0.6	587	
RX 450H AWD	4WD	3.5	HV	High efficiency lights	Pre-approved list	NA	NA	14MY	2,261	0.2	102	
RX 450H AWD	4WD	3.5	HV	High efficiency lights	Pre-approved list	NA	NA	14MY	6,490	0.6	880	
RX 450H L AWD	4WD	3.5	HV	High efficiency lights	Pre-approved list	NA	NA	14MY	606	0.2	27	
RX 450H L AWD	4WD	3.5	HV	High efficiency lights	Pre-approved list	NA	NA	14MY	1,377	0.6	187	
SEQUOIA 2WD	FR	5.7	S6-1	High efficiency lights	Pre-approved list	NA	NA	14MY	823	0.5	93	
SEQUOIA 4WD	4WD	5.7	S6-1	High efficiency lights	Pre-approved list	NA	NA	14MY	4,618	0.5	522	
SIENNA	FF	3.5	S8-2	High efficiency lights	Pre-approved list	NA	NA	14MY	41,650	0.1	941	
SIENNA	FF	3.5	S8-2	High efficiency lights	Pre-approved list	NA	NA	14MY	4,937	0.2	223	
SIENNA AWD	4WD	3.5	S8-2	High efficiency lights	Pre-approved list	NA	NA	14MY	9,435	0.1	213	
SIENNA AWD	4WD	3.5	S8-2	High efficiency lights	Pre-approved list	NA	NA	14MY	3,323	0.2	150	
TACOMA 2WD	RWD	2.7	S6-2	High efficiency lights	Pre-approved list	NA	NA	14MY	25,889	0.2	1,169	
TACOMA 2WD	RWD	3.5	S6-2	High efficiency lights	Pre-approved list	NA	NA	14MY	34,665	0.2	1,566	
TACOMA 4WD	4WD	2.7	S6-2	High efficiency lights	Pre-approved list	NA	NA	14MY	4,942	0.2	223	
TACOMA 4WD	4WD	3.5	M6	High efficiency lights	Pre-approved list	NA	NA	14MY	2,556	0.2	115	
TACOMA 4WD	4WD	3.5	S6-2	High efficiency lights	Pre-approved list	NA	NA	14MY	108,184	0.2	4,887	
TACOMA 4WD D-CAB MT TRD-ORP/PRO	4WD	3.5	M6	High efficiency lights	Pre-approved list	NA	NA	14MY	4,543	0.2	205	
TUNDRA 2WD	FR	5.7	S6-1	High efficiency lights	Pre-approved list	NA	NA	14MY	11,171	0.1	252	
TUNDRA 2WD	FR	5.7	S6-1	High efficiency lights	Pre-approved list	NA	NA	14MY	3,453	0.5	390	
TUNDRA 4WD	4WD	5.7	S6-1	High efficiency lights	Pre-approved list	NA	NA	14MY	21,827	0.1	493	
TUNDRA 4WD	4WD	5.7	S6-1	High efficiency lights	Pre-approved list	NA	NA	14MY	44,489	0.5	5,024	

225,865	0.38	0.05	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.5	
225,865	0.38	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.4	
225,865	0.38	0.05	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.5	
225,865	0.38	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.4	
225,865	0.38	0.05	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.5	
225,865	0.38	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.4	
225,865	0.38	0.05	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.5	
225,865	0.38	0.05	0.10	0.00	0.00	0.00	0.00	0.00	0.06	0.08	0.67	0.7
225,865	0.38	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.08	0.57	0.6
225,865	0.00	0.00	0.10	0.00	0.06	0.00	0.00	0.00	0.00	0.08	0.24	0.2
225,865	0.38	0.05	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.61	0.6
225,865	0.00	0.00	0.10	0.00	0.06	0.00	0.00	0.00	0.00	0.08	0.24	0.2
225,865	0.38	0.05	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.61	0.6
225,865	0.38	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.67	0.7
225,865	0.38	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.67	0.7
225,865	0.38	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.67	0.7
225,865	0.38	0.05	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.77	0.8
225,865	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.06	0.08	0.20	0.2
225,865	0.38	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.08	0.57	0.6
225,865	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.06	0.08	0.20	0.2
225,865	0.38	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.08	0.57	0.6
225,865	0.38	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.08	0.57	0.6
225,865	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.16	0.1
225,865	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.06	0.2
225,865	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.16	0.2
225,865	0.00	0.05	0.10	0.00	0.06	0.00	0.00	0.00	0.00	0.21	0.2	0.2
225,865	0.00	0.05	0.10	0.00	0.06	0.00	0.00	0.00	0.00	0.21	0.2	0.2
225,865	0.00	0.05	0.10	0.00	0.06	0.00	0.00	0.00	0.00	0.21	0.2	0.2
225,865	0.00	0.05	0.10	0.00	0.06	0.00	0.00	0.00	0.00	0.21	0.2	0.2
225,865	0.00	0.05	0.10	0.00	0.06	0.00	0.00	0.00	0.00	0.21	0.2	0.2
225,865	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.1	0.1
225,865	0.38	0.05	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.5	0.5
225,865	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.1	0.1
225,865	0.38	0.05	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.5	0.5

**Notes:**

<sup>1</sup>CREE benefit based on in-use combined (city/hwy) CREE value tested with and without the device (adjusted for full useful-life compliance).

<sup>2</sup>5-cycle with additional benefits to account for eco headlights/electrical system.

<sup>3</sup>Replicate sets of tests performed (minimum of 3 test sets with the device and 3 test sets without the device).

EPA Form Number  
5900-244

## Model Year Report - Off-Cycle Technology Credits Earned - page 1 of 3

### Manufacturer: TOYOTA Item: Active aerodynamic improvements

**July, 2020**

OMB Control Number 2060-0644  
Expires 10-31-2013

Select Model Year:	2020
Select Report:	Mid-Model Year Report
Select Program:	Primary (non-TLAAS)
Select Fleet:	Cars & Trucks

AA. Total production volume generating credits [Σ J]

BB. Total Off-Cycle Credits for the Model Year (megagrams) [Σ L]

**Instructions**

**Notes**

Domestic Car Totals for the Model Year:	0
Import Car Totals for the Model Year:	120,739
Truck Totals for the Model Year:	132,856

0
17,246
13,831

\*\*\*

**Domestic Cars:**

Model Type Information				Off Cycle Technology					Production	Credits Generated		M. Comments
A. Carline Name	B. Drive	C. Engine	D. Trans	E. Description	F. Type of Testing (5-cycle or Other)	G. Date Announced in Federal Register	H. Date of EPA Approval	I. Initial Model Year Credits can be Generated	J. Production volume (generating credits)	K. Off-Cycle CREE benefit1 (per vehicle) [round to 0.1]	L. Off-cycle credits [calc per 86.1866-12(d)(2)(iii)]	
									units	gpm	megagrams	
				Active aerodynamic improvements	Pre-approved list	NA	NA	14MY			0	
				Active aerodynamic improvements	Pre-approved list	NA	NA	14MY			0	
				Active aerodynamic improvements	Pre-approved list	NA	NA	14MY			0	

Vehicle Lifetime Miles [column O]
195,264
195,264
195,264

CO2 reduced (Active air suspension)	CO2 reduced (Grille shutter)	Factor Car:19.36 Truck:33.16	K. Off-Cycle CREE benefit1 (per vehicle)
%	%		before astm
/	2.6	19.36	0.50336
/	2.66	19.36	0.514976
/	2.76	19.36	0.534336
/	3.7	19.36	0.71632
/	3.56	19.36	0.689216
/	3.61	19.36	0.698896
/	3.47	19.36	0.671792
/	3.57	19.36	0.691152
/	3.33	19.36	0.644688
/	4.18	19.36	0.809248
/	4.24	19.36	0.820864
1.66	/	19.36	0.321376
0.96	/	19.36	0.185856
1.76	/	19.36	0.340736
1.01	/	19.36	0.195536
/	4.21	19.36	0.815056
/	4.36	19.36	0.844096
/	4.46	19.36	0.863456
/	4.52	19.36	0.875072
/	4.49	19.36	0.869264
/	4.52	19.36	0.875072
/	4.42	19.36	0.855712
/	1.15	19.36	0.22264
/	1.2	19.36	0.23232

## Model Year Report - Off-Cycle Technology Credits Earned - page 2 of 3

### Manufacturer: TOYOTA Item: Active aerodynamic improvements

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**Import Cars:**

Model Type Information				Off Cycle Technology					Production	Credits Generated		M. Comments
A. Carline Name	B. Drive	C. Engine	D. Trans	E. Description	F. Type of Testing (5-cycle or Other)	G. Date Announced in Federal Register	H. Date of EPA Approval	I. Initial Model Year Credits can be Generated	J. Production volume (generating credits)	K. Off-Cycle CREE benefit1 (per vehicle) [round to 0.1]	L. Off-cycle credits [calc per 86.1866-12(d)(2)(iii)]	
									units	gpm	megagrams	
AVALON HYBRID	FF	2.5	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	844	0.5	82	
AVALON HYBRID	FF	2.5	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	4,009	0.5	391	
AVALON HYBRID XLE	FF	2.5	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	1,217	0.5	119	
CAMRY HYBRID LE	FF	2.5	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	14,070	0.7	1,923	
CAMRY HYBRID XLE/SE	FF	2.5	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	15,688	0.7	2,144	
CAMRY HYBRID XLE/SE	FF	2.5	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	1	0.7	0	
COROLLA HYBRID	FWD	1.8	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	14	0.7	2	
COROLLA HYBRID	FWD	1.8	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	23,753	0.7	3,247	
ES 300H	FF	2.5	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	1,250	0.6	146	
ES 300H	FF	2.5	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	3,249	0.8	508	
ES 300H	FF	2.5	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	1,815	0.8	284	
LS 500	FR	3.4	S10-4	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	2,290	0.3	134	
LS 500 AWD	4WD	3.4	S10-4	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	1,032	0.2	40	
LS 500H	FR	3.5	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	36	0.3	2	
LS 500H AWD	4WD	3.5	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	42	0.2	2	
PRIUS	FWD	1.8	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	3,506	0.8	548	
PRIUS	FWD	1.8	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	10	0.8	2	
PRIUS	FWD	1.8	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	1,688	0.9	297	
PRIUS	FWD	1.8	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	9,576	0.9	1,683	
PRIUS AWD	4WD	1.8	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	8,237	0.9	1,448	
PRIUS ECO	FWD	1.8	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	2,104	0.9	370	
PRIUS PRIME	FF	1.8	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	20,836	0.9	3,662	
RAV4	FF	2.5	S8-3	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	5,317	0.2	208	
RAV4	FF	2.5	S8-3	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	155	0.2	6	

Vehicle Lifetime Miles [column O]
195,264
195,264
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195,264

### Model Year Report - Off-Cycle Technology Credits Earned - page 3 of 3

#### Manufacturer: TOYOTA Item: Active aerodynamic improvements

\*\*\*[Redacted]\*\*\*

Model Type Information				Off Cycle Technology					Production	Credits Generated		M. Comments
A. Carline Name	B. Drive	C. Engine	D. Trans	E. Description	F. Type of Testing (5-cycle or Other)	G. Date Announced in Federal Register	H. Date of EPA Approval	I. Initial Model Year Credits can be Generated	J. Production volume (generating credits)	K. Off-Cycle CREE benefit <sup>1</sup> (per vehicle) [round to 0.1]	L. Off-cycle credits [calc per 86.1866-12(d)(2)(iii)]	
									units	gpm	megagrams	
HIGHLANDER HYBRID	FWD	2.5	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	2,374	0.4	214	
HIGHLANDER HYBRID	FWD	2.5	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	3,141	0.4	284	
HIGHLANDER HYBRID AWD	4WD	2.5	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	10,410	0.4	941	
HIGHLANDER HYBRID AWD LTD/PLAT	4WD	2.5	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	10,163	0.4	918	
LX 570	4WD	5.7	S8-3	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	3,845	0.7	608	
RAV4 AWD	4WD	2.5	S8-3	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	2,995	0.2	135	
RAV4 AWD	4WD	2.5	S8-3	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	48	0.2	2	
RAV4 AWD	4WD	2.5	S8-3	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	7,582	0.4	685	
RAV4 AWD	4WD	2.5	S8-3	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	1	0.4	0	
RAV4 AWD TRD OFFROAD	4WD	2.5	S8-3	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	5,599	0.2	253	
RAV4 HYBRID AWD	4WD	2.5	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	13,031	0.5	1,472	
RAV4 HYBRID AWD	4WD	2.5	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	29,523	0.5	3,334	
RAV4 HYBRID AWD	4WD	2.5	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	43,806	0.5	4,947	
RAV4 HYBRID AWD	4WD	2.5	HV	Active aerodynamic improvements	Pre-approved list	NA	NA	14MY	338	0.5	38	

Vehicle Lifetime Miles [column O]
225,865
225,865
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225,865
225,865

CO2 reduced (Active air suspension)	CO2 reduced (Grille shutter)	Factor Car:19.36 Truck:33.16	K. Off-Cycle CREE benefit <sup>1</sup> (per vehicle) [round to 0.1]
%	%		before astm
/	1.18	<b>33.16</b>	0.391288
/	1.19	<b>33.16</b>	0.394604
/	1.17	<b>33.16</b>	0.387972
/	1.16	<b>33.16</b>	0.384656
2	/	<b>33.16</b>	0.6632
/	0.56	<b>33.16</b>	0.185696
/	0.59	<b>33.16</b>	0.195644
/	1.15	<b>33.16</b>	0.38134
/	1.2	<b>33.16</b>	0.39792
/	0.56	<b>33.16</b>	0.185696
/	1.45	<b>33.16</b>	0.48082
/	1.46	<b>33.16</b>	0.484136
/	1.47	<b>33.16</b>	0.487452
/	1.49	<b>33.16</b>	0.494084

**Notes:**  
<sup>1</sup>CREE benefit based on in-use combined (city/hwy) CREE value tested with and without the device (adjusted for full useful-life compliance).  
<sup>2</sup>5-cycle with additional benefits to account for eco headlights/electrical system.  
<sup>3</sup>Replicate sets of tests performed (minimum of 3 test sets with the device and 3 test sets without the device).

EPA Form Number 5900-244





## Model Year Report - Off-Cycle Technology Credits Earned - page 3 of 3

### Manufacturer: TOYOTA Item: Start & Stop

\*\*\*\* [REDACTED]

Trucks:														
Model Type Information				Off Cycle Technology						Production	Credits Generated		M. Comments	
A. Carline Name	B. Drive	C. Engine	D. Trans	E. Description	F. Type of Testing (5- cycle or Other)	G. Date Announ- ced in Federal Register	H. Date of EPA Approval	I. Initial Model Year Credits can be Generated	J. Production volume (generating credits)	K. Off-Cycle CREE benefit <sup>1</sup> (per vehicle) [round to 0.1]	L. Off-cycle credits [calc per 86.1866-12 (d)(2)(iii)]			
									units	gpm	megagrams			
HIGHLANDER	FWD	3.5	S8-3 SS	Start and Stop	Pre-approved list	NA	NA	14MY	29,371	2.9	19,238			
HIGHLANDER AWD	4WD	3.5	S8-3 SS	Start and Stop	Pre-approved list	NA	NA	14MY	48,096	2.9	31,503			
HIGHLANDER HYBRID	FWD	2.5	HV	Start and Stop	Pre-approved list	NA	NA	14MY	5,515	4.4	5,481			
HIGHLANDER HYBRID AWD	4WD	2.5	HV	Start and Stop	Pre-approved list	NA	NA	14MY	10,410	4.4	10,346			
HIGHLANDER HYBRID AWD LTD/PLAT	4WD	2.5	HV	Start and Stop	Pre-approved list	NA	NA	14MY	10,163	4.4	10,100			
NX 300H AWD	4WD	2.5	HV	Start and Stop	Pre-approved list	NA	NA	14MY	11,031	4.4	10,963			
RAV4 AWD	4WD	2.5	S8-3 SS	Start and Stop	Pre-approved list	NA	NA	14MY	61,229	2.9	40,106			
RAV4 AWD LE	4WD	2.5	S8-3 SS	Start and Stop	Pre-approved list	NA	NA	14MY	34,780	2.9	22,781			
RAV4 HYBRID AWD	4WD	2.5	HV	Start and Stop	Pre-approved list	NA	NA	14MY	86,698	4.4	86,161			
RX 450H AWD	4WD	3.5	HV	Start and Stop	Pre-approved list	NA	NA	14MY	8,751	4.4	8,697			
RX 450H L AWD	4WD	3.5	HV	Start and Stop	Pre-approved list	NA	NA	14MY	1,983	4.4	1,971			

Vehicle Lifetime Miles [column O]
225,865
225,865
225,865
225,865
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225,865

e-Water pump		Engine 1 min. off	Factor depends on e-water pump for Trucks	
without	with	Y/N	without	with
	with	N	2.9	4.4
	with	N	2.9	4.4
			2.9	4.4
			2.9	4.4
			2.9	4.4
			2.9	4.4
without		Y	2.9	4.4
without		Y	2.9	4.4
			2.9	4.4
			2.9	4.4
			2.9	4.4

**Notes:**  
<sup>1</sup>CREE benefit based on in-use combined (city/hwy) CREE value tested with and without the device (adjusted for full useful-life compliance).  
<sup>2</sup>5-cycle with additional benefits to account for eco headlights/electrical system.  
<sup>3</sup>Replicate sets of tests performed (minimum of 3 test sets with the device and 3 test sets without the device).

EPA Form Number 5900-244
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## Model Year Report - Off-Cycle Technology Credits Earned - page 1 of 3

### Manufacturer: TOYOTA Item: Active transmission/engine warm-up

OMB Control Number 2060-0644  
Expires 10-31-2013

Select Model Year:	2020
Select Report:	Mid-Model Year Report
Select Program:	Primary (non-TLAAS)
Select Fleet:	Cars & Trucks

July, 2020

AA. Total production volume generating credits [Σ J]

BB. Total Off-Cycle Credits for the Model Year (megagrams) [Σ L]

Domestic Car Totals for the Model Year:	257,150
Import Car Totals for the Model Year:	364,822
Truck Totals for the Model Year:	484,293

75,318
106,855
350,031

Instructions

Notes

\*\*\*\* [Redacted]

Domestic Cars:

Model Type Information				Off Cycle Technology					Production	Credits Generated		M. Comments	Vehicle Lifetime Miles [column O]
A. Carline Name	B. Drive	C. Engine	D. Trans	E. Description	F. Type of Testing (5-cycle or Other)	G. Date Announced in Federal Register	H. Date of EPA Approval	I. Initial Model Year Credits can be Generated	J. Production volume (generating credits)	K. Off-Cycle CREE benefit1 (per vehicle) [round to 0.1]	L. Off-cycle credits [calc per 86.1866-12 (d)(2)(iii)]		
									units	gpm	megagrams		
AVALON	FF	3.5	S8-3	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	7,160	1.5	2,097		195,264
AVALON XLE	FF	3.5	S8-3	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	2,557	1.5	749		195,264
CAMRY AWD LE/SE	4WD	2.5	S8-3	Active transmission warm-up	Pre-approved list	NA	NA	14MY	7,472	1.5	2,189		195,264
CAMRY AWD XLE/XSE	4WD	2.5	S8-3	Active transmission warm-up	Pre-approved list	NA	NA	14MY	2,185	1.5	640		195,264
CAMRY LE/SE	FF	2.5	S8-1	Active transmission warm-up	Pre-approved list	NA	NA	14MY	163,055	1.5	47,758		195,264
CAMRY XLE/XSE	FF	2.5	S8-3	Active transmission warm-up	Pre-approved list	NA	NA	14MY	37,101	1.5	10,867		195,264
ES 350	FF	3.5	S8-3	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	20,174	1.5	5,909		195,264
ES 350 F SPORT	FF	3.5	S8-3	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	4,216	1.5	1,235		195,264
YARIS	FF	1.5	6EAT	Active transmission warm-up	Pre-approved list	NA	NA	14MY	13,230	1.5	3,875		195,264

## Model Year Report - Off-Cycle Technology Credits Earned - page 2 of 3

### Manufacturer: TOYOTA Item: Active transmission/engine warm-up

\*\*\*\* [Redacted]

Import Cars:

Model Type Information				Off Cycle Technology					Production	Credits Generated		M. Comments	Vehicle Lifetime Miles [column O]
A. Carline Name	B. Drive	C. Engine	D. Trans	E. Description	F. Type of Testing (5-cycle or Other)	G. Date Announced in Federal Register	H. Date of EPA Approval	I. Initial Model Year Credits can be Generated	J. Production volume (generating credits)	K. Off-Cycle CREE benefit1 (per vehicle) [round to 0.1]	L. Off-cycle credits [calc per 86.1866-12 (d)(2)(iii)]		
									units	gpm	megagrams		
86	FR	2	S6-2	Active transmission warm-up	Pre-approved list	NA	NA	14MY	1,357	1.5	397		195,264
CAMRY	FF	2.5	S8-1	Active transmission warm-up	Pre-approved list	NA	NA	14MY	823	1.5	241		195,264
CAMRY	FF	3.5	S8-3	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	1,180	1.5	346		195,264
CAMRY TRD	FF	3.5	S8-3	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	4,474	1.5	1,310		195,264
CAMRY XSE	FF	3.5	S8-3	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	5,192	1.5	1,521		195,264
COROLLA	FWD	2	S10-2	Active transmission warm-up	Pre-approved list	NA	NA	14MY	74,711	1.5	21,883		195,264

COROLLA HATCHBACK	FF	2	S10-3	Active transmission warm-up	Pre-approved list	NA	NA	14MY	9,592	1.5	2,809	195,264
COROLLA HATCHBACK XSE	FF	2	S10-3	Active transmission warm-up	Pre-approved list	NA	NA	14MY	2,770	1.5	811	195,264
COROLLA XSE	FWD	2	S10-2	Active transmission warm-up	Pre-approved list	NA	NA	14MY	8,781	1.5	2,572	195,264
GS 350	FR	3.5	S8-3	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	62	1.5	18	195,264
GS 350 AWD	4WD	3.5	S6-3	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	1,090	1.5	319	195,264
GS 350 F SPORT	FR	3.5	S8-3	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	1,276	1.5	374	195,264
IS 300	FR	2	S8-3	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	5,901	1.5	1,728	195,264
IS 300 AWD	4WD	3.5	S6-3	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	2,114	1.5	619	195,264
IS 350	FR	3.5	S8-3	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	1,589	1.5	465	195,264
IS 350 AWD	4WD	3.5	S6-3	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	839	1.5	246	195,264
LC 500H	FR	3.5	HV	Active engine warm-up	Pre-approved list	NA	NA	14MY	16	1.5	5	195,264
LS 500	FR	3.4	S10-4	Active transmission warm-up	Pre-approved list	NA	NA	14MY	2,290	1.5	671	195,264
LS 500 AWD	4WD	3.4	S10-4	Active transmission warm-up	Pre-approved list	NA	NA	14MY	1,032	1.5	302	195,264
LS 500H	FR	3.5	HV	Active engine warm-up	Pre-approved list	NA	NA	14MY	36	1.5	11	195,264
LS 500H AWD	4WD	3.5	HV	Active engine warm-up	Pre-approved list	NA	NA	14MY	42	1.5	12	195,264
NX 300	FF	2	S6-3	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	28,641	1.5	8,389	195,264
NX 300 AWD F SPORT	4WD	2	S6-3	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	4,786	1.5	1,402	195,264
PRIUS	FWD	1.8	HV	Active engine warm-up	Pre-approved list	NA	NA	14MY	14,780	1.5	4,329	195,264
PRIUS AWD	4WD	1.8	HV	Active engine warm-up	Pre-approved list	NA	NA	14MY	8,237	1.5	2,413	195,264
PRIUS C	FF	1.5	HV	Active engine warm-up	Pre-approved list	NA	NA	14MY	1	1.5	0	195,264
PRIUS ECO	FWD	1.8	HV	Active engine warm-up	Pre-approved list	NA	NA	14MY	2,104	1.5	616	195,264
PRIUS PRIME	FF	1.8	HV	Active engine warm-up	Pre-approved list	NA	NA	14MY	20,836	1.5	6,103	195,264
RAV4	FF	2.5	S8-3	Active transmission warm-up	Pre-approved list	NA	NA	14MY	45,526	1.5	13,334	195,264
RAV4	FF	2.5	S8-3 SS	Active transmission warm-up	Pre-approved list	NA	NA	14MY	62,811	1.5	18,397	195,264
RC 300	FR	2	S8-3	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	502	1.5	147	195,264
RC 300 AWD	4WD	3.5	S6-3	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	351	1.5	103	195,264
RC 350	FR	3.5	S8-3	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	1,103	1.5	323	195,264
RC 350 AWD	4WD	3.5	S6-3	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	435	1.5	127	195,264
RX 350	FWD	3.5	S8-3	Active engine warm-up	Pre-approved list	NA	NA	14MY	25,662	1.5	7,516	195,264
RX 350 AWD (F SPORT)	4WD	3.5	S8-3	Active engine warm-up	Pre-approved list	NA	NA	14MY	7,738	1.5	2,266	195,264
RX 350 L	FWD	3.5	S8-3	Active engine warm-up	Pre-approved list	NA	NA	14MY	4,075	1.5	1,194	195,264
RX 450H AWD (F SPORT)	4WD	3.5	HV	Active engine warm-up	Pre-approved list	NA	NA	14MY	2,061	1.5	604	195,264
SUPRA 3.0	FR	3	S8	Active engine warm-up	Pre-approved list	NA	NA	14MY	6,015	1.5	1,762	195,264
UX 200	FF	2	S10-3	Active transmission warm-up	Pre-approved list	NA	NA	14MY	3,991	1.5	1,169	195,264

## Model Year Report - Off-Cycle Technology Credits Earned - page 3 of 3

### Manufacturer: TOYOTA Item: Active engine/transmission warm-up

\*\*\*\* [REDACTED]

Model Type Information				Off Cycle Technology					Production	Credits Generated		M. Comments	Vehicle Lifetime Miles [column O]
A. Carline Name	B. Drive	C. Engine	D. Trans	E. Description	F. Type of Testing (5-cycle or Other)	G. Date Announced in Federal Register	H. Date of EPA Approval	I. Initial Model Year Credits can be Generated	J. Production volume (generating credits)	K. Off-Cycle CREE benefit1 (per vehicle) [round to 0.1]	L. Off-cycle credits [calc per 86.1866-12 (d)(2)(iii)]		
									units	gpm	megagrams		
HIGHLANDER	FWD	3.5	S8-3	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	92	3.2	66	225,865	
HIGHLANDER	FWD	3.5	S8-3 SS	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	29,371	3.2	21,228	225,865	
HIGHLANDER AWD	4WD	3.5	S8-3 SS	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	48,096	3.2	34,762	225,865	
HIGHLANDER HYBRID	FWD	2.5	HV	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	5,515	3.2	3,986	225,865	
HIGHLANDER HYBRID AWD	4WD	2.5	HV	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	10,410	3.2	7,524	225,865	
HIGHLANDER HYBRID AWD LTD/PLAT	4WD	2.5	HV	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	10,163	3.2	7,345	225,865	
NX 300 AWD	4WD	2	S6-3	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	18,286	3.2	13,217	225,865	
RAV4 AWD	4WD	2.5	S8-3	Active transmission warm-up	Pre-approved list	NA	NA	14MY	10,626	3.2	7,680	225,865	
RAV4 AWD	4WD	2.5	S8-3 SS	Active transmission warm-up	Pre-approved list	NA	NA	14MY	61,229	3.2	44,254	225,865	
RAV4 AWD LE	4WD	2.5	S8-3 SS	Active transmission warm-up	Pre-approved list	NA	NA	14MY	34,780	3.2	25,138	225,865	

RAV4 AWD TRD OFFROAD	4WD	2.5	S8-3	Active transmission warm-up	Pre-approved list	NA	NA	14MY	5,599	3.2	4,047		225,865
RX 350 AWD	4WD	3.5	S8-3	Active engine warm-up	Pre-approved list	NA	NA	14MY	25,418	3.2	18,371		225,865
RX 350 L AWD	4WD	3.5	S8-3	Active engine warm-up	Pre-approved list	NA	NA	14MY	4,681	3.2	3,383		225,865
RX 450H AWD	4WD	3.5	HV	Active engine warm-up	Pre-approved list	NA	NA	14MY	8,751	3.2	6,325		225,865
RX 450H L AWD	4WD	3.5	HV	Active engine warm-up	Pre-approved list	NA	NA	14MY	1,983	3.2	1,433		225,865
SIENNA	FF	3.5	S8-2	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	46,587	3.2	33,672		225,865
SIENNA AWD	4WD	3.5	S8-2	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	12,758	3.2	9,221		225,865
TACOMA 2WD	RWD	3.5	S6-2	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	34,665	3.2	25,055		225,865
TACOMA 4WD	4WD	3.5	M6	Active engine warm-up	Pre-approved list	NA	NA	14MY	2,556	3.2	1,847		225,865
TACOMA 4WD	4WD	3.5	S6-2	Active transmission and engine warm-up	Pre-approved list	NA	NA	14MY	108,184	3.2	78,192		225,865
TACOMA 4WD D-CAB MT TRD-ORP/PRO	4WD	3.5	M6	Active engine warm-up	Pre-approved list	NA	NA	14MY	4,543	3.2	3,284		225,865

**Notes:**

1CREE benefit based on in-use combined (city/hwy) CREE value tested with and without the device (adjusted for full useful-life compliance).

25-cycle with additional benefits to account for eco headlights/electrical system.

3Replicate sets of tests performed (minimum of 3 test sets with the device and 3 test sets without the device).

EPA Form Number 5900-244
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**Trucks:**

Model Type Information				Off Cycle Technology					Production	Credits Generated		M. Comments
A. Carline Name	B. Drive	C. Engine	D. Trans	E. Description	F. Type of Testing (5-cycle or Other)	G. Date Announced in Federal Register	H. Date of EPA Approval	I. Initial Model Year Credits can be Generated	J. Production volume (generating credits)	K. Off-Cycle CREE benefit <sup>1</sup> (per vehicle) [round to 0.1]	L. Off-cycle credits [calc per 86.1866-12 (d)(2)(iii)]	
									units	gpm	megagrams	

<sup>1</sup>CREE benefit based on in-use combined (city/hwy) CREE value tested with and without the device (adjusted for full useful-life compliance).

<sup>2</sup>5-cycle with additional benefits to account for eco headlights/electrical system.

<sup>3</sup>Replicate sets of tests performed (minimum of 3 test sets with the device and 3 test sets without the device).

Vehicle Lifetime Miles [column O]

glass/glazing	Active Seat ventilation	Solar reflective surface coating	Passive cabin ventilation	Thermal Control Total
Before CAP				After CAP

EPA Form Number  
5900-244

## Model Year Report - Off-Cycle Technology Credits Earned - page 1 of 3

### Manufacturer: TOYOTA Item: High-efficiency Alternators

Select Model Year:	2020
Select Report:	Mid-Model Year Report
Select Program:	Primary (non-TLAAS)
Select Fleet:	Cars & Trucks

July, 2020

AA. Total production volume generating credits [Σ J]

BB. Total Off-Cycle Credits for the Model Year (megagrams) [Σ L]

OMB Control Number 2060-0644  
Expires 10-31-2013

Instructions

Notes

Domestic Car Totals for the Model Year:	243,920
Import Car Totals for the Model Year:	552,809
Truck Totals for the Model Year:	638,410

19,052
39,620
54,885

\*\*\*\* [Redacted]

Domestic Cars:

Model Type Information				Off Cycle Technology					Production	Credits Generated		M. Comments	Vehicle Lifetime Miles [column O]
A. Carline Name	B. Drive	C. Engine	D. Trans	E. Description	F. Type of Testing (5-cycle or Other)	G. Date Announced in Federal Register	H. Date of EPA Approval	I. Initial Model Year Credits can be Generated	J. Production volume (generating credits)	K. Off-Cycle CREE benefit1 (per vehicle) [round to 0.1]	L. Off-cycle credits [calc per 86.1866-12 (d)(2)(iii)]		
									units	gpm	megagrams		
AVALON	FF	3.5	S8-3	High efficiency alternator	Other	04/10/18	June '18	17MY	7,160	0.4	559		195,264
AVALON XLE	FF	3.5	S8-3	High efficiency alternator	Other	04/10/18	June '18	17MY	2,557	0.4	200		195,264
CAMRY AWD LE/SE	4WD	2.5	S8-3	High efficiency alternator	Other	04/10/18	June '18	17MY	7,472	0.4	584		195,264
CAMRY AWD XLE/XSE	4WD	2.5	S8-3	High efficiency alternator	Other	04/10/18	June '18	17MY	2,185	0.4	171		195,264
CAMRY LE/SE	FF	2.5	S8-1	High efficiency alternator	Other	04/10/18	June '18	17MY	163,055	0.4	12,736		195,264
CAMRY XLE/XSE	FF	2.5	S8-3	High efficiency alternator	Other	04/10/18	June '18	17MY	37,101	0.4	2,898		195,264
ES 350	FF	3.5	S8-3	High efficiency alternator	Other	04/10/18	June '18	17MY	20,174	0.4	1,576		195,264
ES 350 F SPORT	FF	3.5	S8-3	High efficiency alternator	Other	04/10/18	June '18	17MY	4,216	0.4	329		195,264

## Model Year Report - Off-Cycle Technology Credits Earned - page 2 of 3

### Manufacturer: TOYOTA Item: High-efficiency Alternators

\*\*\*\* [Redacted]

Import Cars:

Model Type Information				Off Cycle Technology					Production	Credits Generated		M. Comments	Vehicle Lifetime Miles [column O]
A. Carline Name	B. Drive	C. Engine	D. Trans	E. Description	F. Type of Testing (5-cycle or Other)	G. Date Announced in Federal Register	H. Date of EPA Approval	I. Initial Model Year Credits can be Generated	J. Production volume (generating credits)	K. Off-Cycle CREE benefit1 (per vehicle) [round to 0.1]	L. Off-cycle credits [calc per 86.1866-12 (d)(2)(iii)]		
									units	gpm	megagrams		
CAMRY	FF	2.5	S8-1	High efficiency alternator	Other	04/10/18	June '18	17MY	823	0.4	64		195,264
CAMRY	FF	3.5	S8-3	High efficiency alternator	Other	04/10/18	June '18	17MY	1,180	0.4	92		195,264
CAMRY TRD	FF	3.5	S8-3	High efficiency alternator	Other	04/10/18	June '18	17MY	4,474	0.4	349		195,264
CAMRY XSE	FF	3.5	S8-3	High efficiency alternator	Other	04/10/18	June '18	17MY	5,192	0.4	406		195,264
C-HR	FF	2	S7-3	High efficiency alternator	Other	04/10/18	June '18	17MY	33,307	0.2	1,301		195,264
COROLLA	FWD	1.8	AV-1	High efficiency alternator	Other	04/10/18	June '18	17MY	199,430	0.4	15,577		195,264
COROLLA	FWD	1.8	M6	High efficiency alternator	Other	04/10/18	June '18	17MY	143	0.4	11		195,264

COROLLA	FWD	2	M6	High efficiency alternator	Other	04/10/18	June '18	17MY	896	0.2	35	195,264
COROLLA	FWD	2	M6	High efficiency alternator	Other	04/10/18	June '18	17MY	1,750	0.4	137	195,264
COROLLA	FWD	2	S10-2	High efficiency alternator	Other	04/10/18	June '18	17MY	32,223	0.2	1,258	195,264
COROLLA	FWD	2	S10-2	High efficiency alternator	Other	04/10/18	June '18	17MY	42,488	0.4	3,319	195,264
COROLLA HATCHBACK	FF	2	S10-3	High efficiency alternator	Other	04/10/18	June '18	17MY	9,592	0.4	749	195,264
COROLLA HATCHBACK MANUAL	FF	2	M6	High efficiency alternator	Other	04/10/18	June '18	17MY	2,043	0.4	160	195,264
COROLLA HATCHBACK XSE	FF	2	S10-3	High efficiency alternator	Other	04/10/18	June '18	17MY	2,770	0.4	216	195,264
COROLLA XLE	FWD	1.8	AV-2	High efficiency alternator	Other	04/10/18	June '18	17MY	4,596	0.4	359	195,264
COROLLA XSE	FWD	2	S10-2	High efficiency alternator	Other	04/10/18	June '18	17MY	3,613	0.2	141	195,264
COROLLA XSE	FWD	2	S10-2	High efficiency alternator	Other	04/10/18	June '18	17MY	5,168	0.4	404	195,264
GS 350	FR	3.5	S8-3	High efficiency alternator	Other	04/10/18	June '18	17MY	62	0.4	5	195,264
GS 350 AWD	4WD	3.5	S6-3	High efficiency alternator	Other	04/10/18	June '18	17MY	1,090	0.4	85	195,264
GS 350 F SPORT	FR	3.5	S8-3	High efficiency alternator	Other	04/10/18	June '18	17MY	1,276	0.4	100	195,264
GS F	FR	5	S8-3	High efficiency alternator	Other	04/10/18	June '18	17MY	190	0.2	7	195,264
IS 300	FR	2	S8-3	High efficiency alternator	Other	04/10/18	June '18	17MY	5,901	0.3	346	195,264
IS 300 AWD	4WD	3.5	S6-3	High efficiency alternator	Other	04/10/18	June '18	17MY	2,114	0.4	165	195,264
IS 350	FR	3.5	S8-3	High efficiency alternator	Other	04/10/18	June '18	17MY	1,589	0.4	124	195,264
IS 350 AWD	4WD	3.5	S6-3	High efficiency alternator	Other	04/10/18	June '18	17MY	839	0.4	66	195,264
LC 500	FR	5	S10-4	High efficiency alternator	Other	04/10/18	June '18	17MY	673	0.2	26	195,264
LS 500	FR	3.4	S10-4	High efficiency alternator	Other	04/10/18	June '18	17MY	1,359	0.3	80	195,264
LS 500	FR	3.4	S10-4	High efficiency alternator	Other	04/10/18	June '18	17MY	931	0.4	73	195,264
LS 500 AWD	4WD	3.4	S10-4	High efficiency alternator	Other	04/10/18	June '18	17MY	867	0.3	51	195,264
LS 500 AWD	4WD	3.4	S10-4	High efficiency alternator	Other	04/10/18	June '18	17MY	165	0.4	13	195,264
NX 300	FF	2	S6-3	High efficiency alternator	Other	04/10/18	June '18	17MY	28,641	0.4	2,237	195,264
NX 300 AWD F SPORT	4WD	2	S6-3	High efficiency alternator	Other	04/10/18	June '18	17MY	4,786	0.4	374	195,264
RAV4	FF	2.5	S8-3	High efficiency alternator	Other	04/10/18	June '18	17MY	34,167	0.2	1,334	195,264
RAV4	FF	2.5	S8-3	High efficiency alternator	Other	04/10/18	June '18	17MY	11,359	0.4	887	195,264
RAV4	FF	2.5	S8-3 SS	High efficiency alternator	Other	04/10/18	June '18	17MY	62,811	0.4	4,906	195,264
RC 300	FR	2	S8-3	High efficiency alternator	Other	04/10/18	June '18	17MY	502	0.3	29	195,264
RC 300 AWD	4WD	3.5	S6-3	High efficiency alternator	Other	04/10/18	June '18	17MY	351	0.4	27	195,264
RC 350	FR	3.5	S8-3	High efficiency alternator	Other	04/10/18	June '18	17MY	1,103	0.4	86	195,264
RC 350 AWD	4WD	3.5	S6-3	High efficiency alternator	Other	04/10/18	June '18	17MY	435	0.4	34	195,264
RC F	FR	5	S8-3	High efficiency alternator	Other	04/10/18	June '18	17MY	444	0.2	17	195,264
RX 350	FWD	3.5	S8-3	High efficiency alternator	Other	04/10/18	June '18	17MY	25,662	0.5	2,505	195,264
RX 350 AWD (F SPORT)	4WD	3.5	S8-3	High efficiency alternator	Other	04/10/18	June '18	17MY	7,738	0.5	755	195,264
RX 350 L	FWD	3.5	S8-3	High efficiency alternator	Other	04/10/18	June '18	17MY	4,075	0.5	398	195,264
UX 200	FF	2	S10-3	High efficiency alternator	Other	04/10/18	June '18	17MY	3,991	0.4	312	195,264

## Model Year Report - Off-Cycle Technology Credits Earned - page 3 of 3

### Manufacturer: TOYOTA Item: High-efficiency Alternators

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Trucks:				Off Cycle Technology					Production	Credits Generated		M. Comments	Vehicle Lifetime Miles [column O]
Model Type Information				E. Description	F. Type of Testing (5-cycle or Other)	G. Date Announced in Federal Register	H. Date of EPA Approval	I. Initial Model Year Credits can be Generated	J. Production volume (generating credits)	K. Off-Cycle CREE benefit1 (per vehicle) [round to 0.1]	L. Off-cycle credits [calc per 86.1866-12 (d)(2)(iii)]		
A. Carline Name	B. Drive	C. Engine	D. Trans						units	gpm	megagrams		
4RUNNER 2WD	FR	4	S5-1	High efficiency alternator	Other	04/10/18	June '18	17MY	13,810	0.2	624	225,865	
4RUNNER 4WD	4WD	4	S5-1	High efficiency alternator	Other	04/10/18	June '18	17MY	89,206	0.2	4,030	225,865	
GX 460	4WD	4.6	S6-1	High efficiency alternator	Other	04/10/18	June '18	17MY	219	0.2	10	225,865	
GX 460	4WD	4.6	S6-1	High efficiency alternator	Other	04/10/18	June '18	17MY	23,619	0.4	2,134	225,865	
HIGHLANDER	FWD	3.5	S8-3	High efficiency alternator	Other	04/10/18	June '18	17MY	92	0.5	10	225,865	
HIGHLANDER	FWD	3.5	S8-3 SS	High efficiency alternator	Other	04/10/18	June '18	17MY	29,371	0.5	3,317	225,865	
HIGHLANDER AWD	4WD	3.5	S8-3 SS	High efficiency alternator	Other	04/10/18	June '18	17MY	48,096	0.5	5,432	225,865	
LAND CRUISER WAGON 4WD	4WD	5.7	S8-2	High efficiency alternator	Other	04/10/18	June '18	17MY	2,373	0.2	107	225,865	
LX 570	4WD	5.7	S8-3	High efficiency alternator	Other	04/10/18	June '18	17MY	3,845	0.2	174	225,865	
NX 300 AWD	4WD	2	S6-3	High efficiency alternator	Other	04/10/18	June '18	17MY	18,286	0.4	1,652	225,865	
RAV4 AWD	4WD	2.5	S8-3	High efficiency alternator	Other	04/10/18	June '18	17MY	710	0.2	32	225,865	

RAV4 AWD	4WD	2.5	S8-3	High efficiency alternator	Other	04/10/'18	June '18	17MY	9,916	0.4	896	225,865
RAV4 AWD	4WD	2.5	S8-3 SS	High efficiency alternator	Other	04/10/'18	June '18	17MY	61,229	0.4	5,532	225,865
RAV4 AWD LE	4WD	2.5	S8-3 SS	High efficiency alternator	Other	04/10/'18	June '18	17MY	34,780	0.4	3,142	225,865
RAV4 AWD TRD OFFROAD	4WD	2.5	S8-3	High efficiency alternator	Other	04/10/'18	June '18	17MY	5,599	0.4	506	225,865
RX 350 AWD	4WD	3.5	S8-3	High efficiency alternator	Other	04/10/'18	June '18	17MY	25,418	0.5	2,871	225,865
RX 350 L AWD	4WD	3.5	S8-3	High efficiency alternator	Other	04/10/'18	June '18	17MY	4,681	0.5	529	225,865
SEQUOIA 2WD	FR	5.7	S6-1	High efficiency alternator	Other	04/10/'18	June '18	17MY	823	0.2	37	225,865
SEQUOIA 4WD	4WD	5.7	S6-1	High efficiency alternator	Other	04/10/'18	June '18	17MY	4,618	0.2	209	225,865
TACOMA 2WD	RWD	2.7	S6-2	High efficiency alternator	Other	04/10/'18	June '18	17MY	25,889	0.4	2,339	225,865
TACOMA 2WD	RWD	3.5	S6-2	High efficiency alternator	Other	04/10/'18	June '18	17MY	34,665	0.4	3,132	225,865
TACOMA 4WD	4WD	2.7	S6-2	High efficiency alternator	Other	04/10/'18	June '18	17MY	4,942	0.4	446	225,865
TACOMA 4WD	4WD	3.5	M6	High efficiency alternator	Other	04/10/'18	June '18	17MY	2,556	0.4	231	225,865
TACOMA 4WD	4WD	3.5	S6-2	High efficiency alternator	Other	04/10/'18	June '18	17MY	108,184	0.4	9,774	225,865
TACOMA 4WD D-CAB MT TRD-ORP/PRO	4WD	3.5	M6	High efficiency alternator	Other	04/10/'18	June '18	17MY	4,543	0.4	410	225,865
TUNDRA 2WD	FR	5.7	S6-1	High efficiency alternator	Other	04/10/'18	June '18	17MY	10	0.1	0	225,865
TUNDRA 2WD	FR	5.7	S6-1	High efficiency alternator	Other	04/10/'18	June '18	17MY	14,614	0.4	1,320	225,865
TUNDRA 4WD	4WD	5.7	S6-1	High efficiency alternator	Other	04/10/'18	June '18	17MY	21	0.1	0	225,865
TUNDRA 4WD	4WD	5.7	S6-1	High efficiency alternator	Other	04/10/'18	June '18	17MY	66,295	0.4	5,989	225,865

**Notes:**

1CREE benefit based on in-use combined (city/hwy) CREE value tested with and without the device (adjusted for full useful-life compliance).

25-cycle with additional benefits to account for eco headlights/electrical system.

3Replicate sets of tests performed (minimum of 3 test sets with the device and 3 test sets without the device).

EPA Form Number 5900-244
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# Model Year Report - Off-Cycle Technology Credits Earned - page 1 of 3

Manufacturer: TOYOTA Item: DENSO SAS (SES) Compressor

July, 2020

Select Model Year:	2020
Select Report:	Mid-Model Year Report
Select Program:	Primary (non-TLAAS)
Select Fleet:	Cars & Trucks

AA. Total production volume generating credits [Σ J]

BB. Total Off-Cycle Credits for the Model Year (megagrams) [Σ L]

OMB Control Number 2060-0644  
Expires 10-31-2013

Instructions

Notes

Domestic Car Totals for the Model Year:	209,813
Import Car Totals for the Model Year:	300,514
Truck Totals for the Model Year:	34,511

8,194
11,830
3,119

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Domestic Cars:

Model Type Information				Off Cycle Technology					Production	Credits Generated		M. Comments
A. Carline Name	B. Drive	C. Engine	D. Trans	E. Description	F. Type of Testing (5-cycle or Other)	G. Date Announced in Federal Register	H. Date of EPA Approval	I. Initial Model Year Credits can be Generated	J. Production volume (generating credits)	K. Off-Cycle CREE benefit1 (per vehicle) [round to 0.1]	L. Off-cycle credits [calc per 86.1866-12 (d)(2)(iii)]	
									units	gpm	megagrams	
CAMRY AWD LE/SE	4WD	2.5	S8-3	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	7,472	0.2	292	
CAMRY AWD XLE/XSE	4WD	2.5	S8-3	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	2,185	0.2	85	
CAMRY LE/SE	FF	2.5	S8-1	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	163,055	0.2	6,368	
CAMRY XLE/XSE	FF	2.5	S8-3	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	37,101	0.2	1,449	

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# Model Year Report - Off-Cycle Technology Credits Earned - page 2 of 3

Manufacturer: TOYOTA Item: DENSO SAS (SES) Compressor

\*\*\*\* [Redacted]

Import Cars:

Model Type Information				Off Cycle Technology					Production	Credits Generated		M. Comments
A. Carline Name	B. Drive	C. Engine	D. Trans	E. Description	F. Type of Testing (5-cycle or Other)	G. Date Announced in Federal Register	H. Date of EPA Approval	I. Initial Model Year Credits can be Generated	J. Production volume (generating credits)	K. Off-Cycle CREE benefit1 (per vehicle) [round to 0.1]	L. Off-cycle credits [calc per 86.1866-12 (d)(2)(iii)]	
									units	gpm	megagrams	
CAMRY	FF	2.5	S8-1	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	823	0.2	32	
COROLLA	FWD	1.8	AV-1	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	199,430	0.2	7,788	
COROLLA	FWD	1.8	M6	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	143	0.2	6	
COROLLA XLE	FWD	1.8	AV-2	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	4,596	0.2	179	
GS 350	FR	3.5	S8-3	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	62	0.2	2	
GS 350 AWD	4WD	3.5	S6-3	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	1,090	0.2	43	
GS 350 F SPORT	FR	3.5	S8-3	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	1,276	0.2	50	
GS F	FR	5	S8-3	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	190	0.2	7	
IS 300	FR	2	S8-3	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	5,901	0.2	230	
IS 300 AWD	4WD	3.5	S6-3	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	2,114	0.2	83	
IS 350	FR	3.5	S8-3	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	1,589	0.2	62	

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IS 350 AWD	4WD	3.5	S6-3	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	839	0.2	33		195,264
LC 500	FR	5	S10-4	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	673	0.2	26		195,264
NX 300	FF	2	S6-3	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	28,126	0.2	1,098		195,264
NX 300	FF	2	S6-3	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	515	1.1	111		195,264
NX 300 AWD F SPORT	4WD	2	S6-3	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	4,764	0.2	186		195,264
NX 300 AWD F SPORT	4WD	2	S6-3	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	22	1.1	5		195,264
RAV4	FF	2.5	S8-3	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	45,526	0.2	1,778		195,264
RC 300	FR	2	S8-3	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	502	0.2	20		195,264
RC 300 AWD	4WD	3.5	S6-3	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	351	0.2	14		195,264
RC 350	FR	3.5	S8-3	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	1,103	0.2	43		195,264
RC 350 AWD	4WD	3.5	S6-3	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	435	0.2	17		195,264
RC F	FR	5	S8-3	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	444	0.2	17		195,264

## Model Year Report - Off-Cycle Technology Credits Earned - page 3 of 3

Manufacturer: TOYOTA Item: DENSO SAS (SES) Compressor

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Model Type Information				Off Cycle Technology					Production	Credits Generated		M. Comments	Vehicle Lifetime Miles [column Q]
A. Carline Name	B. Drive	C. Engine	D. Trans	E. Description	F. Type of Testing (5-cycle or Other)	G. Date Announced in Federal Register	H. Date of EPA Approval	I. Initial Model Year Credits can be Generated	J. Production volume (generating credits)	K. Off-Cycle CREE benefit <sup>1</sup> (per vehicle) [round to 0.1]	L. Off-cycle credits [calc per 86.1866-12 (d)(2)(iii)]		
									units	gpm	megagrams		
NX 300 AWD	4WD	2	S6-3	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	18,282	0.4	1,652		225,865
NX 300 AWD	4WD	2	S6-3	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	4	1.1	1		225,865
RAV4 AWD	4WD	2.5	S8-3	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	10,626	0.4	960		225,865
RAV4 AWD TRD OFFROAD	4WD	2.5	S8-3	DENSO SAS (SES) Compressor	Other	02/26/18	June '18	17MY	5,599	0.4	506		225,865

**Notes:**

<sup>1</sup>CREE benefit based on in-use combined (city/hwy) CREE value tested with and without the device (adjusted for full useful-life compliance).

<sup>2</sup>5-cycle with additional benefits to account for eco headlights/electrical system.

<sup>3</sup>Replicate sets of tests performed (minimum of 3 test sets with the device and 3 test sets without the device).

EPA Form Number  
5900-244