

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P198377

Luminaire Tested: **TT-C3-LED-E1-DL-MS/DIM-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198377
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (P27139) AND DOWNLIGHT
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: TT-C3-LED-E1-DL-MS/DIM-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
DRIVE LANE DISTRIBUTION WITH DIMMING OCCUPANCY SENSOR
Light Source: (160) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6052.7 lumens
Efficiency: N/A
Efficacy: 72.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U4 - G3

Input Watts (W): 83.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



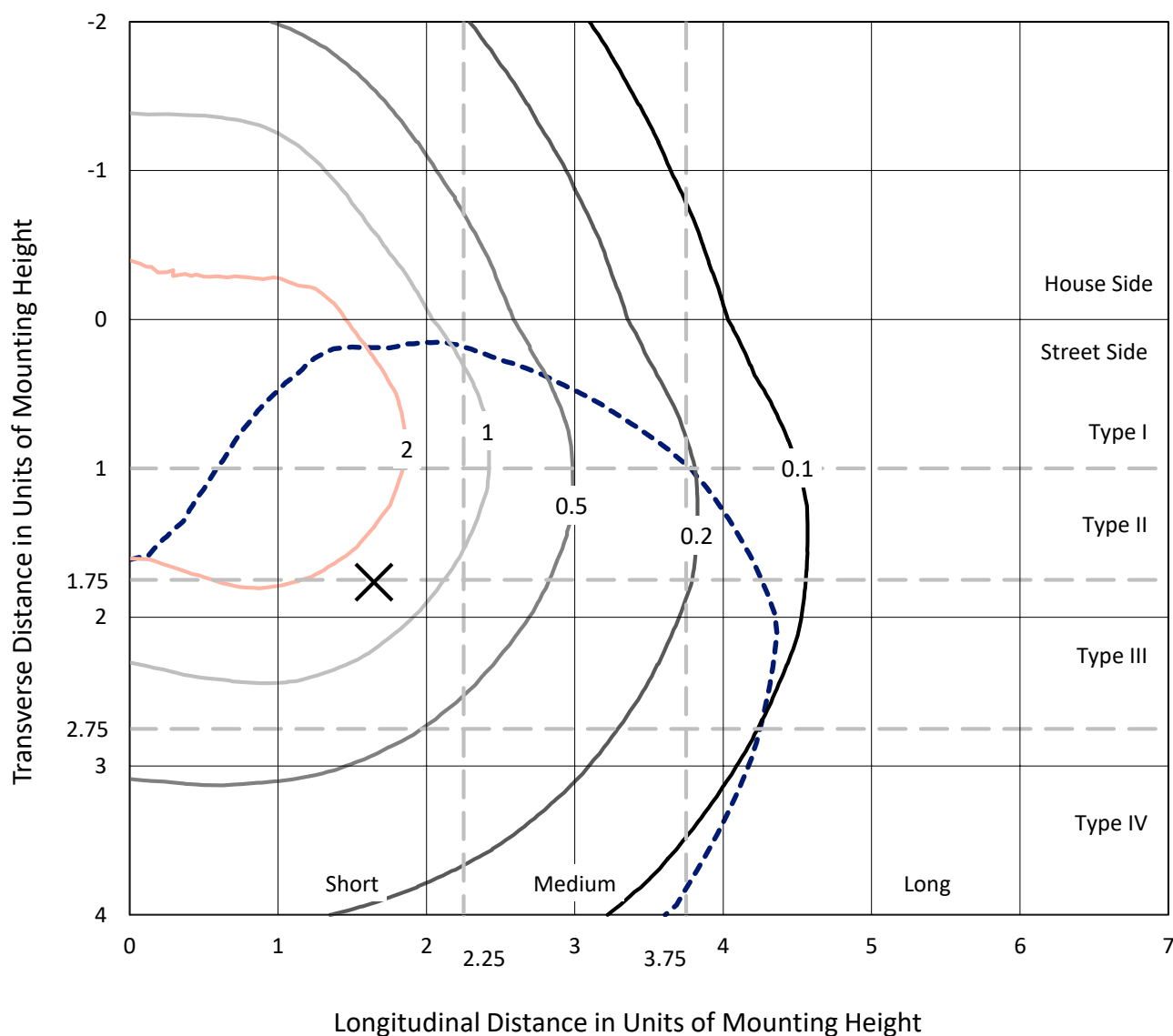
REPORT NUMBER: P198377

CATALOG NUMBER: TT-C3-LED-E1-DL-MS/DIM-UPL

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

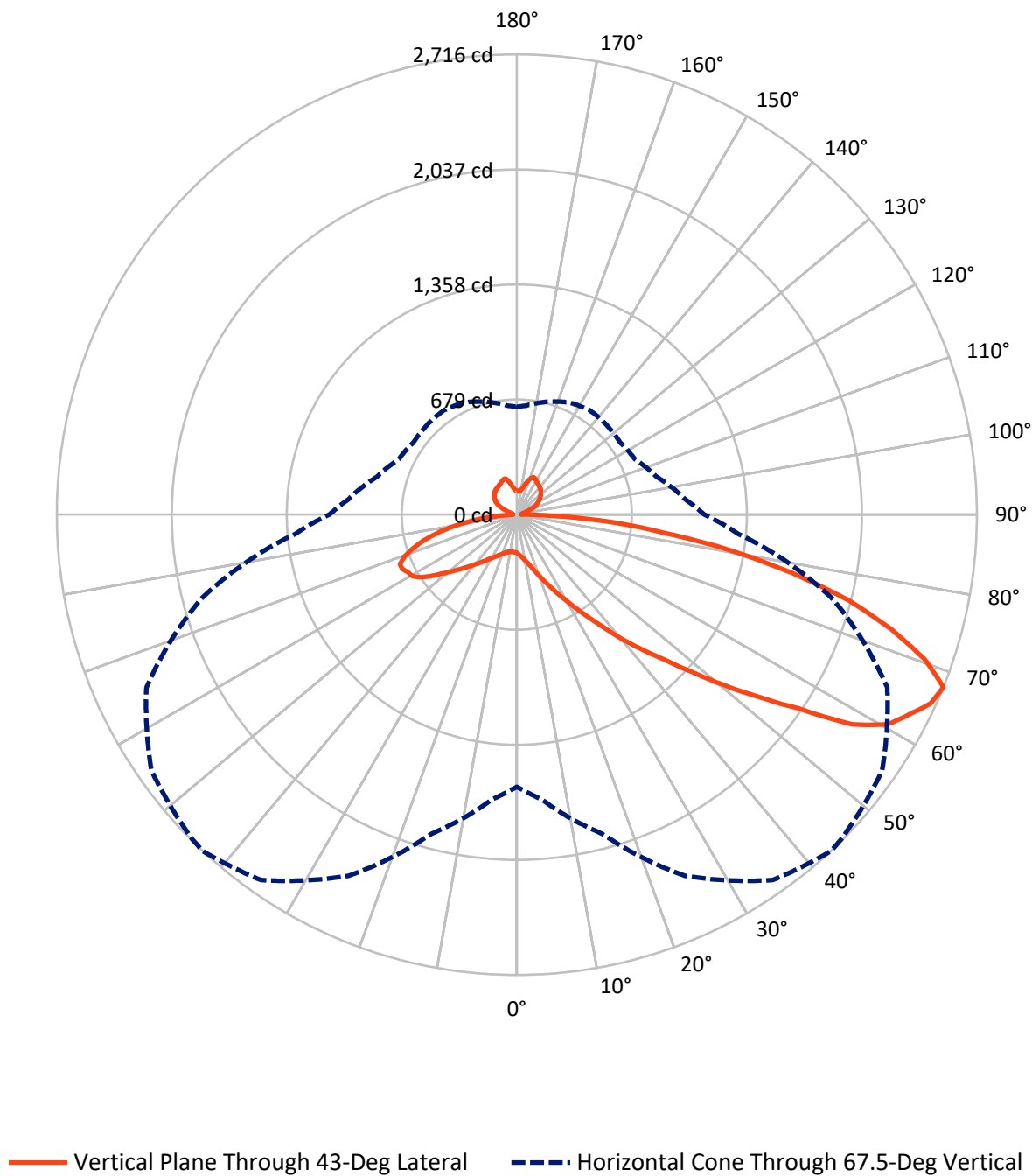


Based on 10 foot mounting height. Maximum calculated value = 4.4 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P198377

CATALOG NUMBER: TT-C3-LED-E1-DL-MS/DIM-UPL

Luminous Intensity Polar Plot



REPORT NUMBER: P198377

CATALOG NUMBER: TT-C3-LED-E1-DL-MS/DIM-UPL

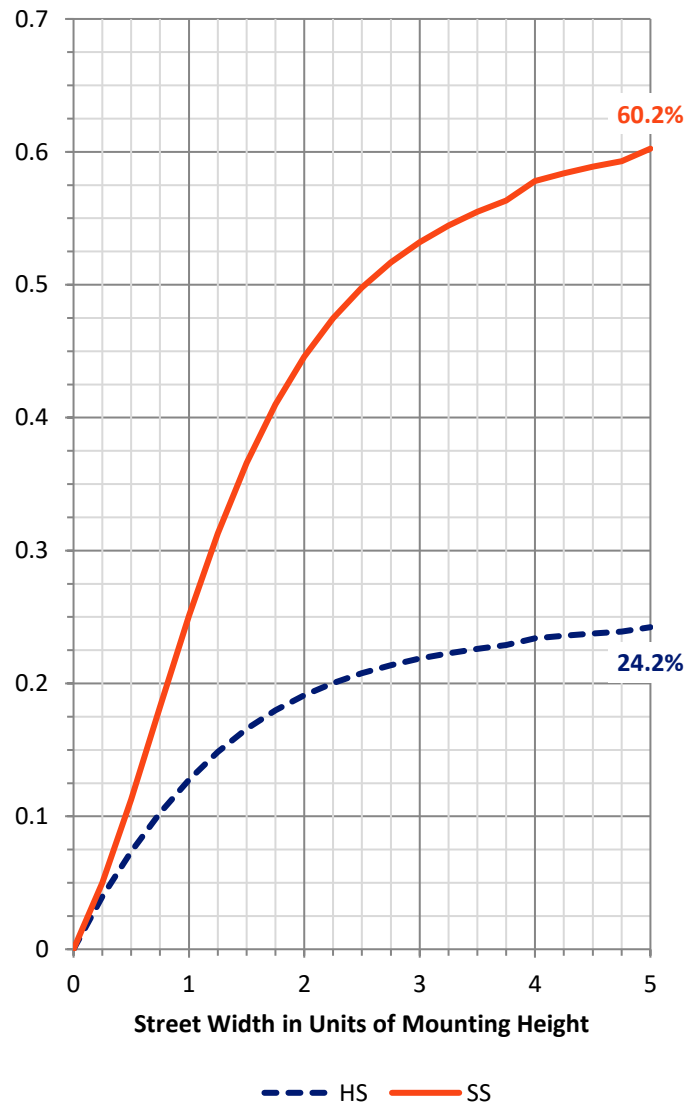
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1500.3	387.3	1887.6
	% Fixture	24.8	6.4	31.2
Street Side	Lumens	3752.5	412.6	4165.1
	% Fixture	62.0	6.8	68.8
Total	Lumens	5252.7	799.9	6052.7
	% Fixture	86.8	13.2	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.8	0.4
10°-20°	79.5	1.3
20°-30°	172.3	2.8
30°-40°	332.7	5.5
40°-50°	610.8	10.1
50°-60°	1055.0	17.4
60°-70°	1426.6	23.6
70°-80°	1194.7	19.7
80°-90°	358.4	5.9
90°-100°	36.3	0.6
100°-110°	55.2	0.9
110°-120°	110.8	1.8
120°-130°	144.2	2.4
130°-140°	148.0	2.4
140°-150°	133.4	2.2
150°-160°	102.6	1.7
160°-170°	55.1	0.9
170°-180°	14.3	0.2
0°-90°	5252.7	86.8
0°-180°	6052.7	100.0

Coefficient of Utilization



REPORT NUMBER: P198377

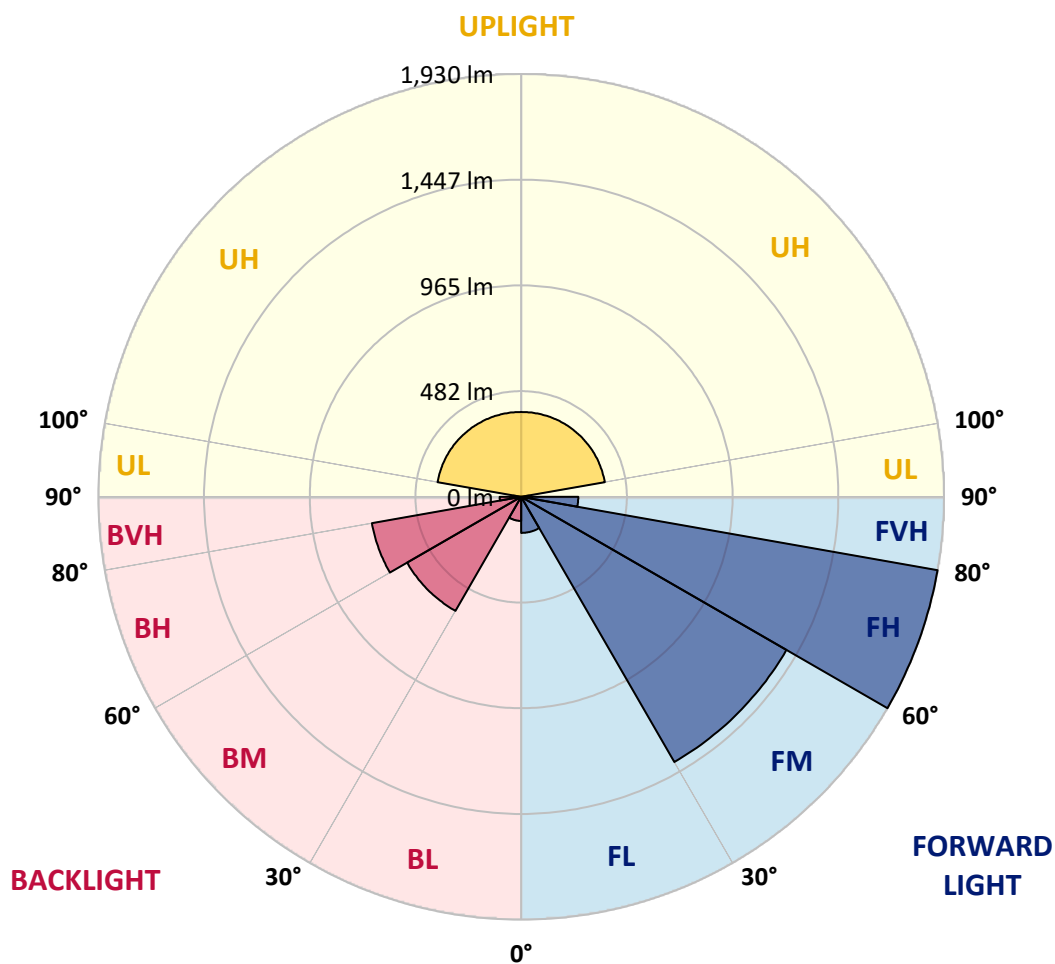
CATALOG NUMBER: TT-C3-LED-E1-DL-MS/DIM-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	164.8	2.7			
FM	(30°-60°)	1397.5	23.1			
FH	(60°-80°)	1929.7	31.9			G2/5000
FVH	(80°-90°)	260.5	4.3			G3/500
BL	(0°-30°)	109.8	1.8	B0/110		
BM	(30°-60°)	601.0	9.9	B1/1000		
BH	(60°-80°)	691.5	11.4	B2/1000		G2/1000
BVH	(80°-90°)	98.0	1.6			G1/100
UL	(90°-100°)	36.3	0.6		U2/50	
UH	(100°-180°)	387.3	6.4		U3/500	

BUG Rating: B2-U4-G3

Type IV Short



REPORT NUMBER: P198377

CATALOG NUMBER: TT-C3-LED-E1-DL-MS/DIM-UPL

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	43°	45°	55°	65°	75°	85°
0°	226	226	226	226	226	226	226	226	226	226	226
2.5°	239	239	238	238	237	236	235	235	233	232	231
5°	252	252	252	250	248	247	247	244	241	238	235
7.5°	268	267	267	265	262	259	258	256	251	247	241
10°	286	286	286	282	279	276	274	270	264	257	251
12.5°	308	308	309	304	301	295	294	288	280	270	261
15°	333	337	334	334	324	321	319	312	301	288	276
17.5°	369	368	364	365	358	353	348	336	324	306	290
20°	410	408	403	401	397	388	386	370	351	332	311
22.5°	450	451	449	445	441	434	430	413	386	361	330
25°	490	494	494	497	490	481	478	458	428	390	357
27.5°	540	541	544	548	546	538	532	510	473	431	387
30°	590	594	596	604	606	600	594	569	531	476	420
32.5°	644	650	654	665	678	674	672	643	598	534	465
35°	705	706	719	744	755	757	752	732	677	601	515
37.5°	763	768	790	822	841	854	856	837	776	680	570
40°	827	830	866	900	951	972	967	947	881	771	635
42.5°	893	903	937	993	1056	1091	1100	1076	1010	879	719
45°	957	973	1010	1083	1177	1219	1228	1240	1178	1014	831
47.5°	1027	1036	1092	1189	1292	1382	1408	1417	1322	1141	910
50°	1100	1102	1180	1312	1473	1577	1579	1625	1504	1302	1007
52.5°	1178	1180	1272	1442	1654	1784	1810	1825	1763	1511	1186
55°	1255	1260	1374	1618	1881	2018	2079	2144	1997	1673	1251
57.5°	1336	1346	1513	1810	2131	2336	2367	2377	2147	1738	1271
60°	1410	1432	1658	1996	2342	2514	2518	2460	2204	1776	1272
62.5°	1487	1515	1791	2174	2504	2598	2608	2515	2304	1903	1360
65°	1545	1597	1891	2299	2568	2685	2703	2677	2461	1989	1390
67.5°	1605	1687	1949	2351	2632	2716	2709	2633	2413	1933	1314
70°	1681	1741	1994	2333	2540	2553	2553	2459	2261	1821	1221
72.5°	1711	1758	1944	2189	2315	2311	2293	2241	2054	1649	1083
75°	1679	1685	1771	1920	2015	2025	2004	1931	1784	1430	927
77.5°	1506	1492	1512	1586	1670	1663	1660	1577	1463	1180	761
80°	1186	1194	1195	1209	1260	1278	1259	1196	1119	918	589
82.5°	815	828	840	822	844	864	861	801	776	644	407
85°	439	470	477	487	536	560	551	506	471	398	246
87.5°	89	73	104	148	187	202	227	171	136	100	56
90°	36	36	36	34	29	26	26	28	32	34	34
92.5°	40	39	38	34	29	27	27	28	32	35	36
95°	44	43	41	36	32	30	30	30	34	37	39
97.5°	42	42	40	37	35	33	33	33	34	36	36
100°	45	45	44	40	38	36	36	36	38	38	37
102.5°	51	51	49	46	44	42	42	43	44	42	41
105°	60	60	57	54	53	52	52	54	53	49	48
107.5°	72	72	70	67	66	67	68	68	66	60	59
110°	86	86	89	85	86	87	87	84	84	78	74

REPORT NUMBER: P198377

CATALOG NUMBER: TT-C3-LED-E1-DL-MS/DIM-UPL

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	43°	45°	55°	65°	75°	85°
112.5°	101	102	108	107	110	107	107	102	105	100	95
115°	121	122	128	128	129	125	124	121	125	123	116
117.5°	140	141	144	141	141	137	136	138	141	139	133
120°	152	153	155	149	149	147	147	150	153	148	145
122.5°	161	162	164	154	155	157	158	159	162	155	153
125°	169	169	172	163	165	167	168	167	168	163	160
127.5°	177	177	181	171	176	178	178	176	175	173	166
130°	187	188	191	179	186	186	186	183	183	184	171
132.5°	198	199	201	186	193	195	195	190	192	192	179
135°	210	210	209	192	199	201	201	196	201	199	185
137.5°	221	219	213	197	205	208	208	203	210	204	191
140°	229	226	216	200	207	212	213	212	217	209	195
142.5°	235	231	218	201	208	216	218	220	223	211	198
145°	235	230	218	202	211	220	223	230	227	211	201
147.5°	230	227	219	207	216	225	229	239	229	212	204
150°	224	221	220	214	222	232	235	242	232	214	210
152.5°	216	214	221	220	230	238	241	242	235	219	215
155°	208	207	219	224	237	241	243	238	234	224	220
157.5°	203	203	216	224	234	234	235	228	229	226	222
160°	199	198	210	213	219	218	219	215	219	221	218
162.5°	185	184	193	193	198	197	198	196	200	204	207
165°	169	167	173	173	176	176	177	176	181	185	190
167.5°	154	152	156	155	159	158	159	160	165	168	172
170°	142	141	145	144	147	147	147	148	152	155	159
172.5°	137	135	139	138	141	141	141	141	145	146	149
175°	136	134	137	137	139	139	139	138	141	141	143
177.5°	137	136	139	138	140	139	139	138	140	140	141
180°	140	140	140	140	140	140	140	140	140	140	140

REPORT NUMBER: P198377

CATALOG NUMBER: TT-C3-LED-E1-DL-MS/DIM-UPL

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	226	226	226	226	226	226	226	226	226	226	226
2.5°	230	229	228	226	224	223	222	221	221	221	221
5°	234	233	230	228	225	223	221	220	218	217	218
7.5°	239	237	232	228	225	222	220	219	218	216	216
10°	247	244	237	231	227	223	220	219	218	217	217
12.5°	258	252	244	237	230	225	223	221	220	220	220
15°	269	264	253	242	235	231	228	225	225	225	225
17.5°	284	275	262	250	242	236	234	232	232	233	233
20°	300	290	274	261	251	244	242	241	241	242	242
22.5°	318	306	286	271	261	256	252	252	252	253	254
25°	342	325	301	284	272	266	264	264	264	266	266
27.5°	367	349	318	297	285	279	276	277	278	279	279
30°	396	375	337	315	300	293	290	291	292	294	292
32.5°	432	406	363	334	317	310	308	309	309	309	310
35°	480	447	394	357	340	330	328	328	328	327	327
37.5°	527	485	425	388	366	354	348	348	348	348	348
40°	582	533	465	421	395	380	372	369	368	367	365
42.5°	653	597	511	457	426	410	398	392	388	387	384
45°	748	679	580	510	465	443	429	417	410	408	403
47.5°	818	738	628	556	509	481	460	444	434	429	426
50°	891	816	695	606	558	526	499	477	459	452	451
52.5°	1051	951	787	677	608	572	544	518	490	478	481
55°	1101	997	844	746	675	633	593	559	527	506	507
57.5°	1107	1001	856	769	721	687	652	605	566	537	536
60°	1099	994	853	766	730	720	698	657	601	567	563
62.5°	1162	1050	885	777	732	728	721	697	640	596	589
65°	1174	1057	902	806	764	749	741	713	676	620	615
67.5°	1106	1001	856	770	744	749	751	730	689	645	635
70°	1025	920	795	712	694	704	723	723	693	656	657
72.5°	904	819	705	645	627	640	662	679	671	658	659
75°	774	700	606	562	549	565	587	607	619	628	634
77.5°	637	582	503	461	461	476	497	515	535	558	562
80°	490	446	388	359	362	374	396	412	424	444	447
82.5°	346	320	271	250	255	271	281	292	301	306	312
85°	204	184	162	155	155	161	174	176	177	178	177
87.5°	51	56	48	47	47	51	49	53	53	55	51
90°	34	34	34	32	27	21	25	30	33	34	34
92.5°	36	35	33	31	27	23	25	29	34	36	36
95°	38	38	35	33	29	26	27	31	34	35	36
97.5°	36	35	35	34	30	25	26	30	33	35	35
100°	37	37	38	38	33	27	28	32	35	36	36
102.5°	41	42	43	45	39	32	33	35	38	40	41
105°	49	49	52	54	48	39	38	41	44	48	49
107.5°	60	61	65	65	58	50	47	50	54	60	61
110°	75	77	78	75	71	65	60	62	67	73	74

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	94	94	91	86	84	82	77	80	85	87	87
115°	113	111	104	100	99	102	99	103	106	102	102
117.5°	129	128	121	117	116	120	121	125	125	120	120
120°	142	142	137	134	134	137	137	139	139	134	136
122.5°	150	153	151	148	149	149	145	148	149	145	146
125°	158	162	162	159	160	159	149	154	156	154	154
127.5°	163	169	170	168	168	169	154	158	163	160	161
130°	169	176	178	174	175	175	159	164	169	164	167
132.5°	176	182	186	181	183	181	165	171	176	171	174
135°	184	190	195	190	191	187	170	177	184	179	179
137.5°	190	196	204	200	199	191	175	182	192	187	187
140°	195	201	213	212	206	195	180	186	200	195	196
142.5°	198	204	220	222	212	197	184	190	205	204	205
145°	202	208	225	230	216	199	187	193	208	211	214
147.5°	206	212	230	236	219	202	191	195	212	220	225
150°	211	216	231	235	219	205	194	199	215	227	233
152.5°	216	220	229	230	220	208	201	205	219	232	239
155°	219	221	224	222	220	213	208	212	224	234	240
157.5°	219	219	216	213	216	219	215	220	229	232	235
160°	215	214	210	208	213	223	224	228	233	229	232
162.5°	207	207	204	204	209	221	227	231	230	224	226
165°	192	194	196	198	203	212	216	219	220	215	217
167.5°	174	177	181	184	189	195	196	199	200	197	200
170°	160	163	166	168	172	177	178	180	181	178	181
172.5°	151	153	155	156	159	162	162	164	165	163	166
175°	144	146	147	148	149	151	151	152	153	151	153
177.5°	141	142	142	142	143	144	143	144	145	143	145
180°	140	140	140	140	140	140	140	140	140	140	140

(END OF REPORT)