

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: P198378

Luminaire Tested: **TT-C3-LED-E1-DL-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198378
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-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
DRIVE LANE DISTRIBUTION
Light Source: (160) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6309.9 lumens
Efficiency: N/A
Efficacy: 75.2 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

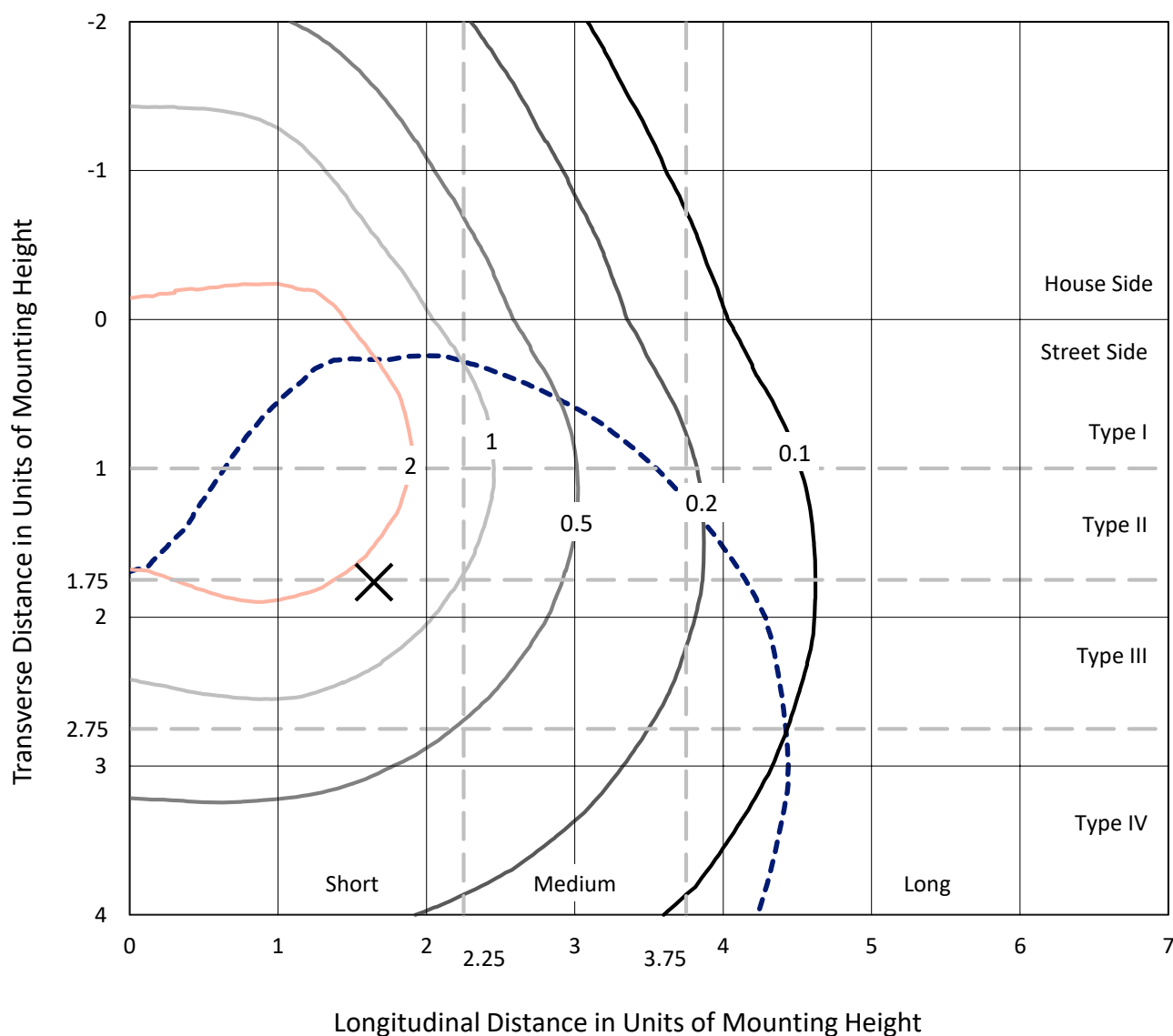


REPORT NUMBER: P198378

CATALOG NUMBER: TT-C3-LED-E1-DL-UPL

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

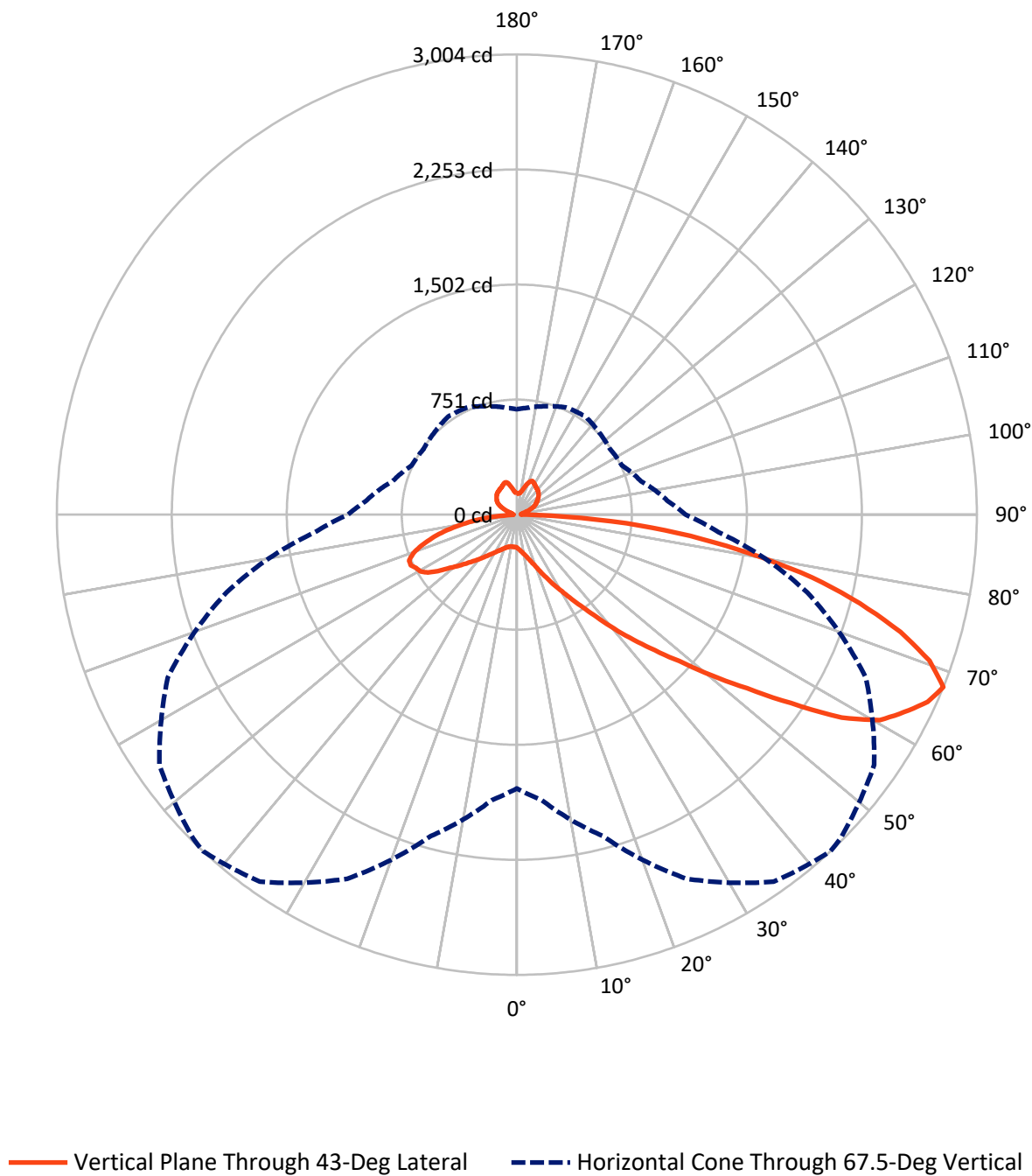


Based on 10 foot mounting height. Maximum calculated value = 4.5 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P198378

CATALOG NUMBER: TT-C3-LED-E1-DL-UPL

Luminous Intensity Polar Plot



REPORT NUMBER: P198378

CATALOG NUMBER: TT-C3-LED-E1-DL-UPL

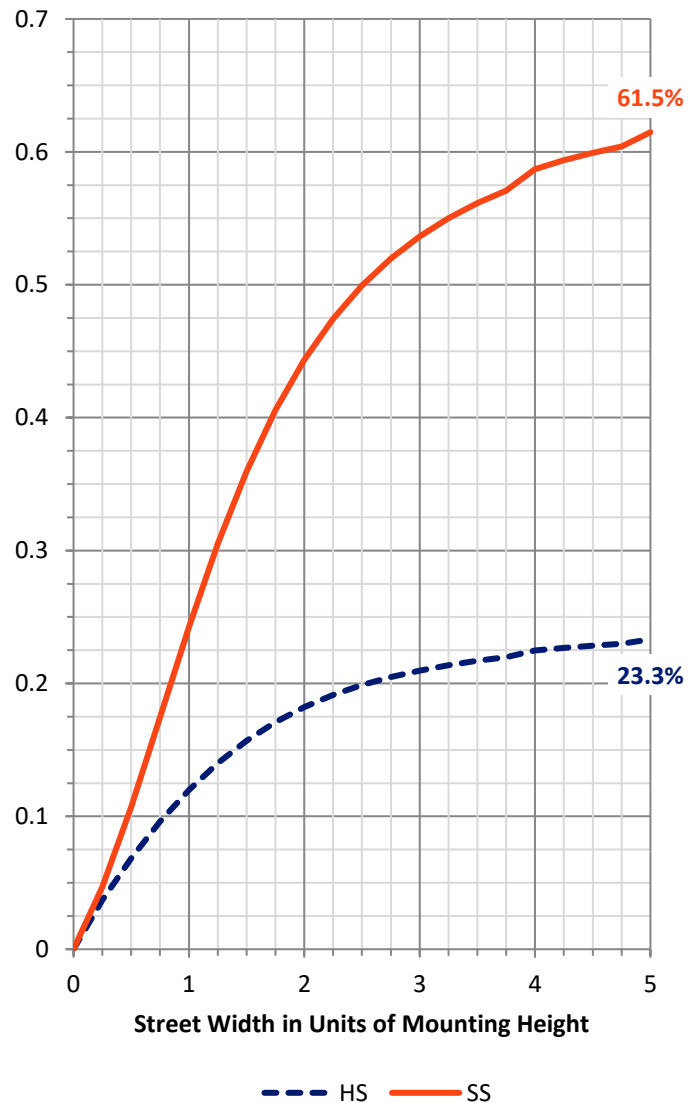
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1504.7	387.3	1892.0
	% Fixture	23.8	6.1	30.0
Street Side	Lumens	4005.3	412.6	4417.9
	% Fixture	63.5	6.5	70.0
Total	Lumens	5509.9	799.9	6309.9
	% Fixture	87.3	12.7	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.7	0.3
10°-20°	75.2	1.2
20°-30°	164.2	2.6
30°-40°	325.2	5.2
40°-50°	615.7	9.8
50°-60°	1093.2	17.3
60°-70°	1513.9	24.0
70°-80°	1298.6	20.6
80°-90°	402.2	6.4
90°-100°	36.3	0.6
100°-110°	55.2	0.9
110°-120°	110.8	1.8
120°-130°	144.2	2.3
130°-140°	148.0	2.3
140°-150°	133.4	2.1
150°-160°	102.6	1.6
160°-170°	55.1	0.9
170°-180°	14.3	0.2
0°-90°	5509.9	87.3
0°-180°	6309.9	100.0

Coefficient of Utilization



REPORT NUMBER: P198378

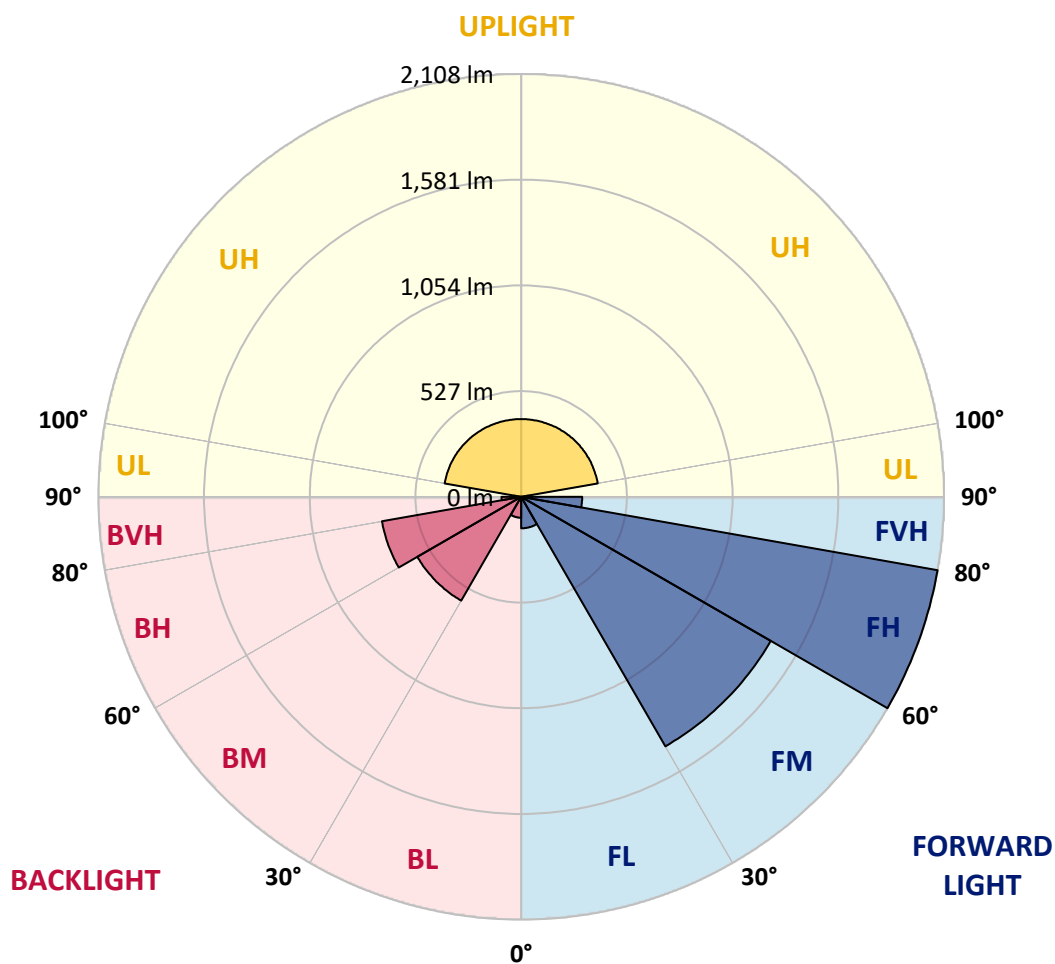
CATALOG NUMBER: TT-C3-LED-E1-DL-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	156.9	2.5			
FM	(30°-60°)	1436.6	22.8			
FH	(60°-80°)	2107.8	33.4			G2/5000
FVH	(80°-90°)	304.1	4.8			G3/500
BL	(0°-30°)	104.2	1.7	B0/110		
BM	(30°-60°)	597.6	9.5	B1/1000		
BH	(60°-80°)	704.7	11.2	B2/1000		G2/1000
BVH	(80°-90°)	98.1	1.6			G1/100
UL	(90°-100°)	36.3	0.6		U2/50	
UH	(100°-180°)	387.3	6.1		U3/500	

BUG Rating: B2-U4-G3

Type IV Short



REPORT NUMBER: P198378

CATALOG NUMBER: TT-C3-LED-E1-DL-UPL

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	43°	45°	55°	65°	75°	85°
0°	215	215	215	215	215	215	215	215	215	215	215
2.5°	227	226	226	226	225	224	224	223	222	221	219
5°	239	237	237	237	236	235	234	232	229	226	224
7.5°	253	254	254	251	249	247	246	242	238	233	229
10°	270	271	271	269	265	263	261	257	250	243	237
12.5°	289	291	292	289	284	280	281	274	265	256	247
15°	317	316	319	313	308	303	302	292	283	271	260
17.5°	351	347	347	344	341	333	329	319	304	290	273
20°	386	385	383	381	375	366	367	351	333	313	292
22.5°	427	431	425	425	420	413	410	389	365	337	313
25°	471	472	472	474	473	461	455	436	408	371	336
27.5°	516	520	519	524	527	519	514	492	452	411	367
30°	566	569	574	586	589	581	577	551	511	453	398
32.5°	623	627	632	655	666	657	651	628	578	514	444
35°	686	686	703	731	748	742	744	720	666	586	500
37.5°	756	756	778	813	846	848	859	831	765	662	555
40°	818	831	864	909	961	978	983	955	874	752	616
42.5°	890	905	946	1013	1079	1116	1118	1091	1007	866	704
45°	963	982	1032	1117	1218	1262	1263	1264	1187	1002	807
47.5°	1046	1061	1127	1228	1357	1429	1453	1456	1351	1143	897
50°	1136	1141	1232	1375	1549	1649	1663	1673	1525	1303	992
52.5°	1229	1236	1342	1540	1759	1883	1907	1911	1792	1535	1176
55°	1325	1331	1468	1737	2009	2172	2215	2242	2055	1684	1250
57.5°	1423	1438	1621	1942	2285	2501	2531	2490	2204	1760	1271
60°	1521	1548	1787	2171	2557	2724	2732	2618	2276	1802	1279
62.5°	1613	1658	1961	2383	2738	2839	2839	2688	2379	1938	1371
65°	1706	1760	2092	2534	2837	2948	2961	2876	2557	2021	1398
67.5°	1787	1870	2172	2622	2925	3004	2989	2849	2514	1963	1323
70°	1877	1934	2229	2620	2846	2859	2851	2700	2378	1855	1227
72.5°	1913	1959	2190	2484	2621	2619	2605	2472	2167	1687	1095
75°	1876	1873	2010	2207	2313	2314	2303	2190	1895	1449	927
77.5°	1675	1669	1729	1849	1963	1973	1954	1828	1578	1200	775
80°	1352	1327	1372	1470	1558	1549	1565	1427	1226	926	586
82.5°	915	923	979	1038	1133	1141	1124	1048	887	672	412
85°	473	484	555	647	680	718	714	661	536	390	245
87.5°	83	72	101	153	186	222	221	158	124	84	52
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: P198378

CATALOG NUMBER: TT-C3-LED-E1-DL-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: P198378

CATALOG NUMBER: TT-C3-LED-E1-DL-UPL

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	215	215	215	215	215	215	215	215	215	215	215
2.5°	219	218	217	215	213	212	211	210	210	209	209
5°	223	221	219	216	214	212	210	209	208	207	207
7.5°	227	225	221	217	213	211	210	208	207	206	206
10°	234	231	225	219	215	212	209	208	207	207	206
12.5°	242	237	230	223	217	213	211	210	209	209	208
15°	254	249	238	228	223	218	215	214	213	214	213
17.5°	266	260	246	236	228	224	221	220	219	221	221
20°	282	273	258	245	236	231	230	228	229	230	230
22.5°	299	288	270	255	247	241	240	240	240	241	242
25°	320	306	283	268	258	253	252	252	253	254	254
27.5°	346	328	300	281	270	265	264	265	267	268	268
30°	376	355	319	299	286	280	280	281	283	285	282
32.5°	412	385	345	318	304	298	298	300	299	300	303
35°	458	426	376	344	326	319	319	320	320	322	323
37.5°	507	468	409	374	354	344	341	342	344	343	345
40°	561	514	448	404	383	372	366	366	365	364	363
42.5°	633	578	496	442	416	404	394	391	389	390	383
45°	724	660	557	498	455	436	426	420	415	411	407
47.5°	801	720	613	546	501	478	462	452	442	438	438
50°	884	802	678	591	551	523	506	488	474	465	470
52.5°	1045	941	776	677	603	572	552	528	509	497	498
55°	1092	983	829	734	670	640	609	577	548	531	532
57.5°	1099	988	839	756	719	699	672	630	593	566	563
60°	1094	985	838	754	727	731	723	687	637	604	600
62.5°	1167	1040	881	771	736	742	752	731	682	637	630
65°	1173	1050	887	793	766	766	772	756	716	670	659
67.5°	1102	992	840	758	744	760	781	771	732	699	688
70°	1023	915	779	701	694	716	750	759	741	714	710
72.5°	899	817	690	629	627	649	684	709	714	715	713
75°	775	691	588	542	546	570	601	628	655	677	686
77.5°	635	573	491	447	455	482	507	534	562	600	605
80°	487	445	371	352	351	373	403	419	459	490	487
82.5°	344	311	269	252	256	271	290	301	330	347	352
85°	203	189	165	149	153	168	171	185	192	203	200
87.5°	43	37	33	34	30	31	35	34	34	40	38
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

REPORT NUMBER: P198378

CATALOG NUMBER: TT-C3-LED-E1-DL-UPL

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)