

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: P198342

Luminaire Tested: **TT-C2-LED-E1-RW-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198342
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-C2-LED-E1-RW-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
RECTANGULAR DISTRIBUTION
Light Source: (168) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4694.9 lumens
Efficiency: N/A
Efficacy: 91.3 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U4 - G2

Input Watts (W): 51.4
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



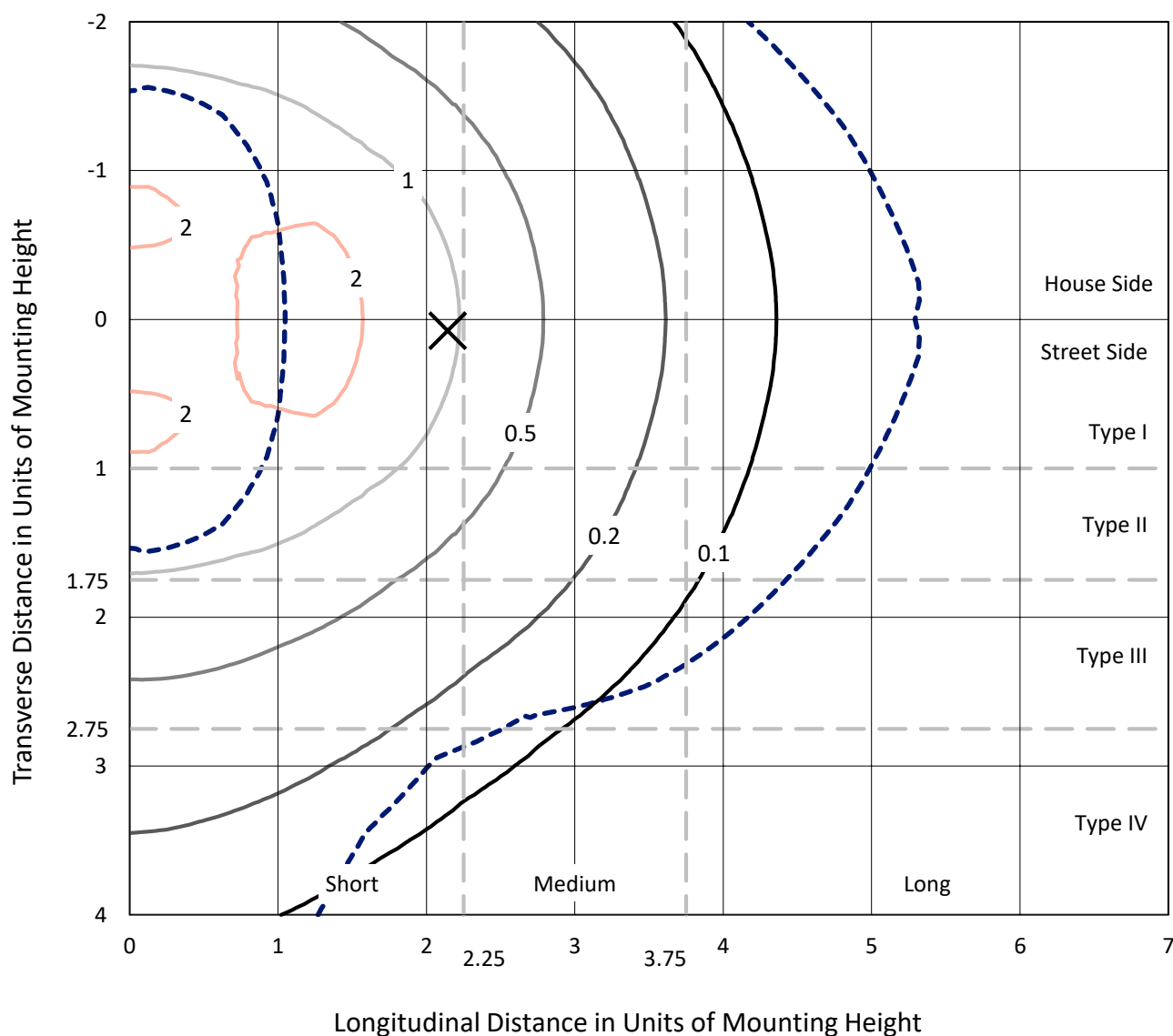
REPORT NUMBER: P198342

CATALOG NUMBER: TT-C2-LED-E1-RW-UPL

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

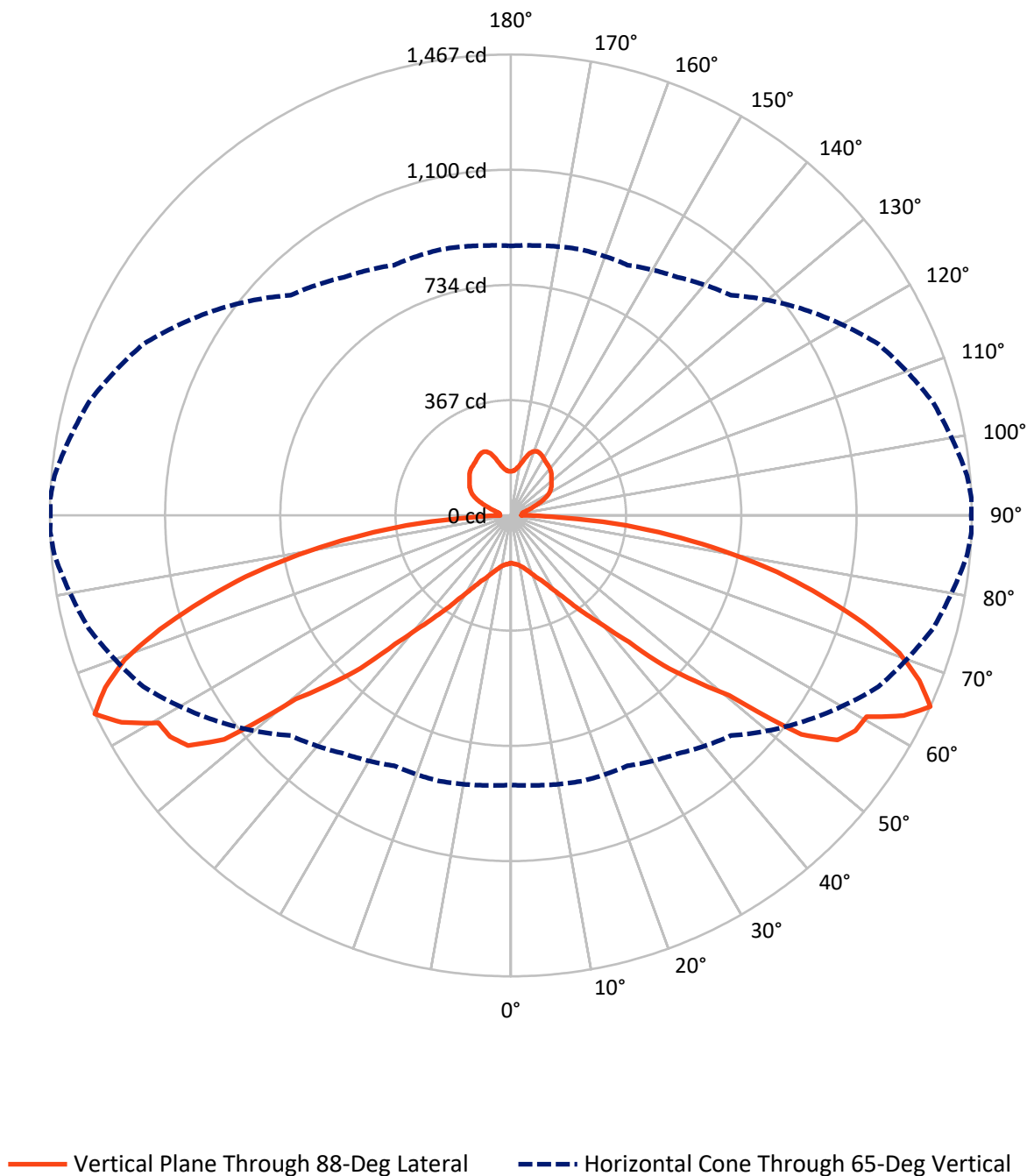


Based on 10 foot mounting height. Maximum calculated value = 2.5 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P198342

CATALOG NUMBER: TT-C2-LED-E1-RW-UPL

Luminous Intensity Polar Plot



REPORT NUMBER: P198342

CATALOG NUMBER: TT-C2-LED-E1-RW-UPL

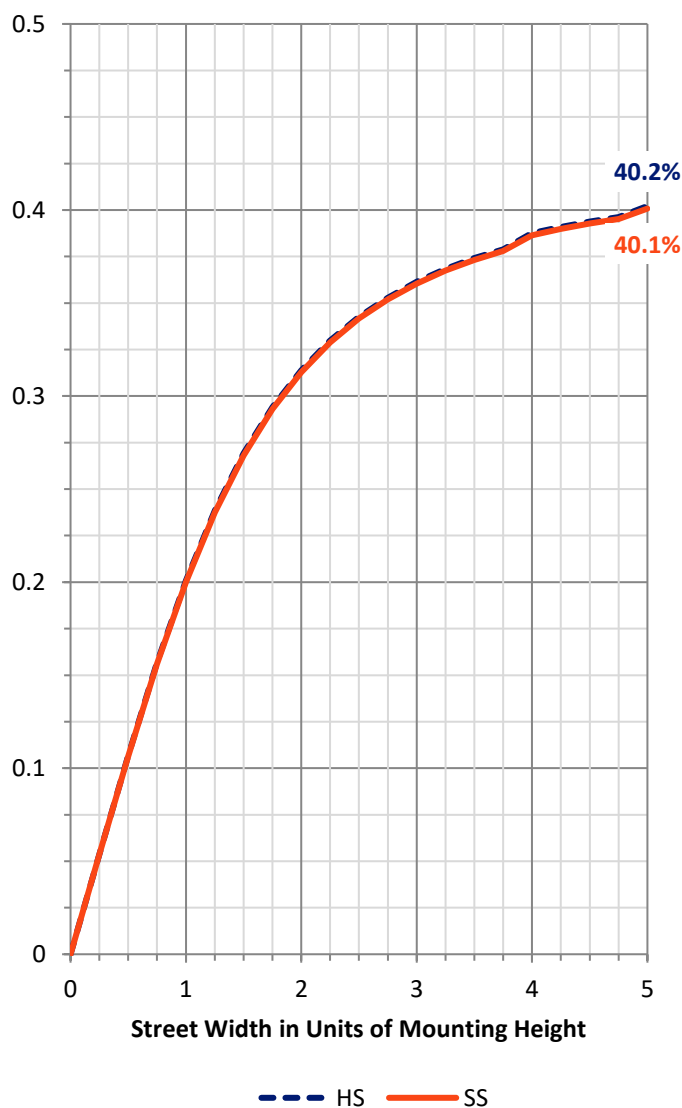
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1934.8	412.7	2347.5
	% Fixture	41.2	8.8	50.0
Street Side	Lumens	1934.8	412.7	2347.5
	% Fixture	41.2	8.8	50.0
Total	Lumens	3869.6	825.3	4694.9
	% Fixture	82.4	17.6	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	15.2	0.3
10°-20°	52.6	1.1
20°-30°	116.2	2.5
30°-40°	231.6	4.9
40°-50°	443.4	9.4
50°-60°	793.6	16.9
60°-70°	1051.7	22.4
70°-80°	877.6	18.7
80°-90°	287.6	6.1
90°-100°	38.4	0.8
100°-110°	59.5	1.3
110°-120°	119.6	2.5
120°-130°	148.9	3.2
130°-140°	153.3	3.3
140°-150°	136.3	2.9
150°-160°	103.9	2.2
160°-170°	51.8	1.1
170°-180°	13.6	0.3
0°-90°	3869.6	82.4
0°-180°	4694.9	100.0

Coefficient of Utilization



REPORT NUMBER: P198342

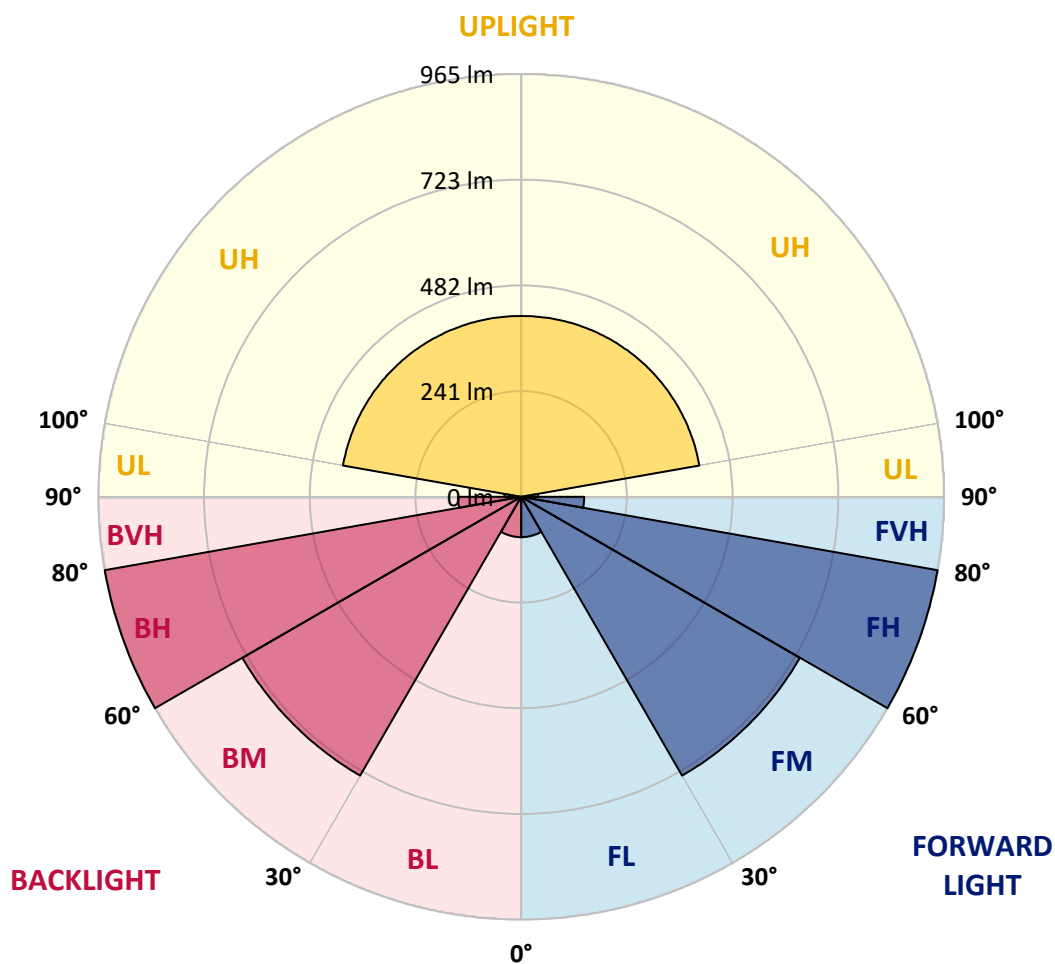
CATALOG NUMBER: TT-C2-LED-E1-RW-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	92.0	2.0			
FM	(30°-60°)	734.3	15.6			
FH	(60°-80°)	964.7	20.5			G1/1800
FVH	(80°-90°)	143.8	3.1			G2/225
BL	(0°-30°)	92.0	2.0	B0/110		
BM	(30°-60°)	734.3	15.6	B1/1000		
BH	(60°-80°)	964.7	20.5	B2/1000		G2/1000
BVH	(80°-90°)	143.8	3.1			G2/225
UL	(90°-100°)	38.4	0.8		U2/50	
UH	(100°-180°)	412.7	8.8		U3/500	

BUG Rating: B2-U4-G2

Type IV Short



REPORT NUMBER: P198342

CATALOG NUMBER: TT-C2-LED-E1-RW-UPL

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	88°
0°	151.3	151.3	151.3	151.3	151.3	151.3	151.3	151.3	151.3	151.3	151.3
2.5°	152.9	152.9	152.9	152.9	153.6	153.6	153.6	153.6	153.6	153.6	153.6
5°	155.1	155.1	155.9	155.9	156.7	156.7	156.7	156.7	155.9	155.9	155.9
7.5°	159.0	159.7	160.5	160.5	160.5	159.7	159.0	159.0	158.2	158.2	158.2
10°	165.8	165.8	166.6	166.6	165.8	165.0	164.3	163.5	163.5	163.5	162.8
12.5°	174.2	174.2	174.9	174.2	172.6	171.9	170.4	169.6	169.6	168.8	168.8
15°	185.6	187.1	187.1	184.8	182.5	180.2	179.5	178.0	178.0	178.0	178.0
17.5°	203.1	202.3	199.3	197.0	195.5	191.7	190.1	189.4	187.9	187.9	187.9
20°	222.8	221.3	217.5	214.5	211.4	206.9	203.8	202.3	201.5	200.8	200.8
22.5°	244.9	242.6	237.3	235.0	228.9	224.4	220.6	217.5	215.2	214.5	216.0
25°	267.7	267.7	263.1	257.1	251.0	244.1	238.8	235.0	232.0	231.2	230.4
27.5°	292.0	293.6	287.5	281.4	274.6	265.4	260.1	254.8	254.0	253.3	252.5
30°	317.9	320.9	314.9	308.8	299.7	290.5	283.7	281.4	279.1	280.6	280.6
32.5°	349.8	351.4	344.5	340.0	327.8	318.7	312.6	311.1	311.8	311.1	313.3
35°	387.1	384.8	379.5	370.4	359.7	351.4	346.8	349.8	358.2	361.3	359.7
37.5°	428.2	419.8	416.8	405.4	395.5	388.6	390.2	397.8	404.6	409.9	408.4
40°	458.6	460.1	451.8	441.1	432.0	430.5	438.8	448.7	461.6	466.2	467.7
42.5°	489.8	498.9	489.0	478.4	473.8	476.9	489.0	508.8	537.7	552.9	550.6
45°	525.5	535.4	524.8	516.4	515.6	527.1	553.7	605.4	648.0	678.4	681.4
47.5°	562.8	570.4	560.5	555.2	562.8	584.9	630.5	699.7	745.3	781.1	787.2
50°	609.9	606.9	599.3	598.5	615.3	655.6	717.2	787.2	869.3	892.9	900.5
52.5°	656.3	644.9	643.4	647.2	676.9	722.5	804.6	942.3	1063.2	1148.4	1157.5
55°	699.7	686.8	689.8	699.7	741.5	810.7	924.8	1092.9	1198.6	1258.7	1261.7
57.5°	739.2	731.6	738.5	752.2	814.5	903.5	1024.4	1162.9	1242.7	1285.3	1292.9
60°	779.5	778.0	786.4	811.5	878.4	957.5	1058.7	1181.1	1261.0	1293.7	1301.3
62.5°	817.6	822.9	833.5	857.9	909.6	971.2	1069.3	1219.1	1338.5	1390.3	1403.2
65°	857.9	862.4	875.4	879.2	925.6	991.0	1141.6	1290.6	1391.0	1457.9	1467.1
67.5°	894.4	900.5	895.9	892.9	933.2	991.0	1127.1	1257.9	1341.6	1392.5	1402.4
70°	929.4	922.5	904.3	880.7	892.1	931.7	1056.4	1169.7	1254.1	1302.0	1311.9
72.5°	938.5	929.4	880.7	826.7	810.0	839.6	954.5	1054.9	1124.1	1168.9	1175.0
75°	914.9	895.9	813.8	739.2	707.3	737.0	832.8	918.7	967.4	1016.1	1019.9
77.5°	820.6	808.4	717.2	626.7	590.9	613.0	692.8	753.7	810.0	857.1	866.3
80°	673.8	663.2	582.6	508.8	460.9	476.1	534.7	583.3	637.3	674.6	686.0
82.5°	495.9	494.3	436.5	367.3	333.9	332.4	376.5	424.4	465.4	501.2	508.8
85°	311.8	311.8	272.3	230.4	195.5	196.2	222.8	257.8	309.5	332.4	334.6
87.5°	105.7	100.4	93.5	76.1	60.8	54.8	58.6	66.9	101.9	126.2	130.8
90°	36.0	36.0	36.0	34.0	29.0	26.0	28.0	32.0	34.0	34.0	34.0
92.5°	40.0	39.0	38.0	34.0	29.0	27.0	28.0	32.0	35.0	36.0	36.0
95°	44.0	43.0	41.0	36.0	32.0	30.0	30.0	34.0	37.0	39.0	38.4
97.5°	42.0	42.0	40.0	37.0	35.0	33.0	33.0	34.0	36.0	36.0	36.0
100°	45.0	45.0	44.0	40.0	38.0	36.0	36.0	38.0	38.0	37.0	37.0
102.5°	51.0	51.0	49.0	46.0	44.0	42.0	43.0	44.0	42.0	41.0	41.0
105°	60.0	60.0	57.0	54.0	53.0	52.0	54.0	53.0	49.0	48.0	48.6
107.5°	72.0	72.0	70.0	67.0	66.0	68.0	68.0	66.0	60.0	59.0	59.6
110°	86.0	86.0	89.0	85.0	86.0	87.0	84.0	84.0	78.0	74.0	74.6

REPORT NUMBER: P198342

CATALOG NUMBER: TT-C2-LED-E1-RW-UPL

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	88°
112.5°	101.0	102.0	108.0	107.0	110.0	107.0	102.0	105.0	100.0	95.0	94.4
115°	121.0	122.0	128.0	128.0	129.0	124.0	121.0	125.0	123.0	116.0	114.2
117.5°	140.0	141.0	144.0	141.0	141.0	136.0	138.0	141.0	139.0	133.0	130.6
120°	152.0	153.0	155.0	149.0	149.0	147.0	150.0	153.0	148.0	145.0	143.2
122.5°	161.0	162.0	164.0	154.0	155.0	158.0	159.0	162.0	155.0	153.0	151.2
125°	169.0	169.0	172.0	163.0	165.0	168.0	167.0	168.0	163.0	160.0	158.8
127.5°	177.0	177.0	181.0	171.0	176.0	178.0	176.0	175.0	173.0	166.0	164.2
130°	187.0	188.0	191.0	179.0	186.0	186.0	183.0	183.0	184.0	171.0	169.8
132.5°	198.0	199.0	201.0	186.0	193.0	195.0	190.0	192.0	192.0	179.0	177.2
135°	210.0	210.0	209.0	192.0	199.0	201.0	196.0	201.0	199.0	185.0	184.4
137.5°	221.0	219.0	213.0	197.0	205.0	208.0	203.0	210.0	204.0	191.0	190.4
140°	229.0	226.0	216.0	200.0	207.0	213.0	212.0	217.0	209.0	195.0	195.0
142.5°	235.0	231.0	218.0	201.0	208.0	218.0	220.0	223.0	211.0	198.0	198.0
145°	235.0	230.0	218.0	202.0	211.0	223.0	230.0	227.0	211.0	201.0	201.6
147.5°	230.0	227.0	219.0	207.0	216.0	229.0	239.0	229.0	212.0	204.0	205.2
150°	224.0	221.0	220.0	214.0	222.0	235.0	242.0	232.0	214.0	210.0	210.6
152.5°	216.0	214.0	221.0	220.0	230.0	241.0	242.0	235.0	219.0	215.0	215.6
155°	208.0	207.0	219.0	224.0	237.0	243.0	238.0	234.0	224.0	220.0	219.4
157.5°	203.0	203.0	216.0	224.0	234.0	235.0	228.0	229.0	226.0	222.0	220.2
160°	199.0	198.0	210.0	213.0	219.0	219.0	215.0	219.0	221.0	218.0	216.2
162.5°	185.0	184.0	193.0	193.0	198.0	198.0	196.0	200.0	204.0	207.0	207.0
165°	169.0	167.0	173.0	173.0	176.0	177.0	176.0	181.0	185.0	190.0	191.2
167.5°	154.0	152.0	156.0	155.0	159.0	159.0	160.0	165.0	168.0	172.0	173.2
170°	142.0	141.0	145.0	144.0	147.0	147.0	148.0	152.0	155.0	159.0	159.6
172.5°	137.0	135.0	139.0	138.0	141.0	141.0	141.0	145.0	146.0	149.0	150.2
175°	136.0	134.0	137.0	137.0	139.0	139.0	138.0	141.0	141.0	143.0	143.6
177.5°	137.0	136.0	139.0	138.0	140.0	139.0	138.0	140.0	140.0	141.0	141.0
180°	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0

REPORT NUMBER: P198342

CATALOG NUMBER: TT-C2-LED-E1-RW-UPL

CANDELA DISTRIBUTION (continued):

	90°
0°	151.3
2.5°	153.6
5°	155.9
7.5°	158.2
10°	162.8
12.5°	169.6
15°	177.2
17.5°	187.9
20°	200.8
22.5°	215.2
25°	230.4
27.5°	253.3
30°	279.9
32.5°	312.6
35°	360.5
37.5°	409.9
40°	471.5
42.5°	556.7
45°	673.8
47.5°	787.2
50°	892.1
52.5°	1138.5
55°	1264.8
57.5°	1292.2
60°	1299.0
62.5°	1396.3
65°	1465.6
67.5°	1401.7
70°	1309.6
72.5°	1170.5
75°	1026.0
77.5°	866.3
80°	676.9
82.5°	508.8
85°	329.3
87.5°	127.0
90°	34.0
92.5°	36.0
95°	38.0
97.5°	36.0
100°	37.0
102.5°	41.0
105°	49.0
107.5°	60.0
110°	75.0

REPORT NUMBER: P198342

CATALOG NUMBER: TT-C2-LED-E1-RW-UPL

CANDELA DISTRIBUTION (continued):

	90°
112.5°	94.0
115°	113.0
117.5°	129.0
120°	142.0
122.5°	150.0
125°	158.0
127.5°	163.0
130°	169.0
132.5°	176.0
135°	184.0
137.5°	190.0
140°	195.0
142.5°	198.0
145°	202.0
147.5°	206.0
150°	211.0
152.5°	216.0
155°	219.0
157.5°	219.0
160°	215.0
162.5°	207.0
165°	192.0
167.5°	174.0
170°	160.0
172.5°	151.0
175°	144.0
177.5°	141.0
180°	140.0

(END OF REPORT)