

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: P198230

Luminaire Tested: **TT-C1-LED-E1-CQ-LWR-LW-8030-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198230
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (P27139) AND SCALED
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: TT-C1-LED-E1-CQ-LWR-LW-8030-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
CONCENTRATED DISTRIBUTION WITH LumaWatt WIRELESS SENSOR
Light Source: (168) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3948.9 lumens
Efficiency: N/A
Efficacy: 87.0 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B1 - U4 - G1

Input Watts (W): 45.4
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



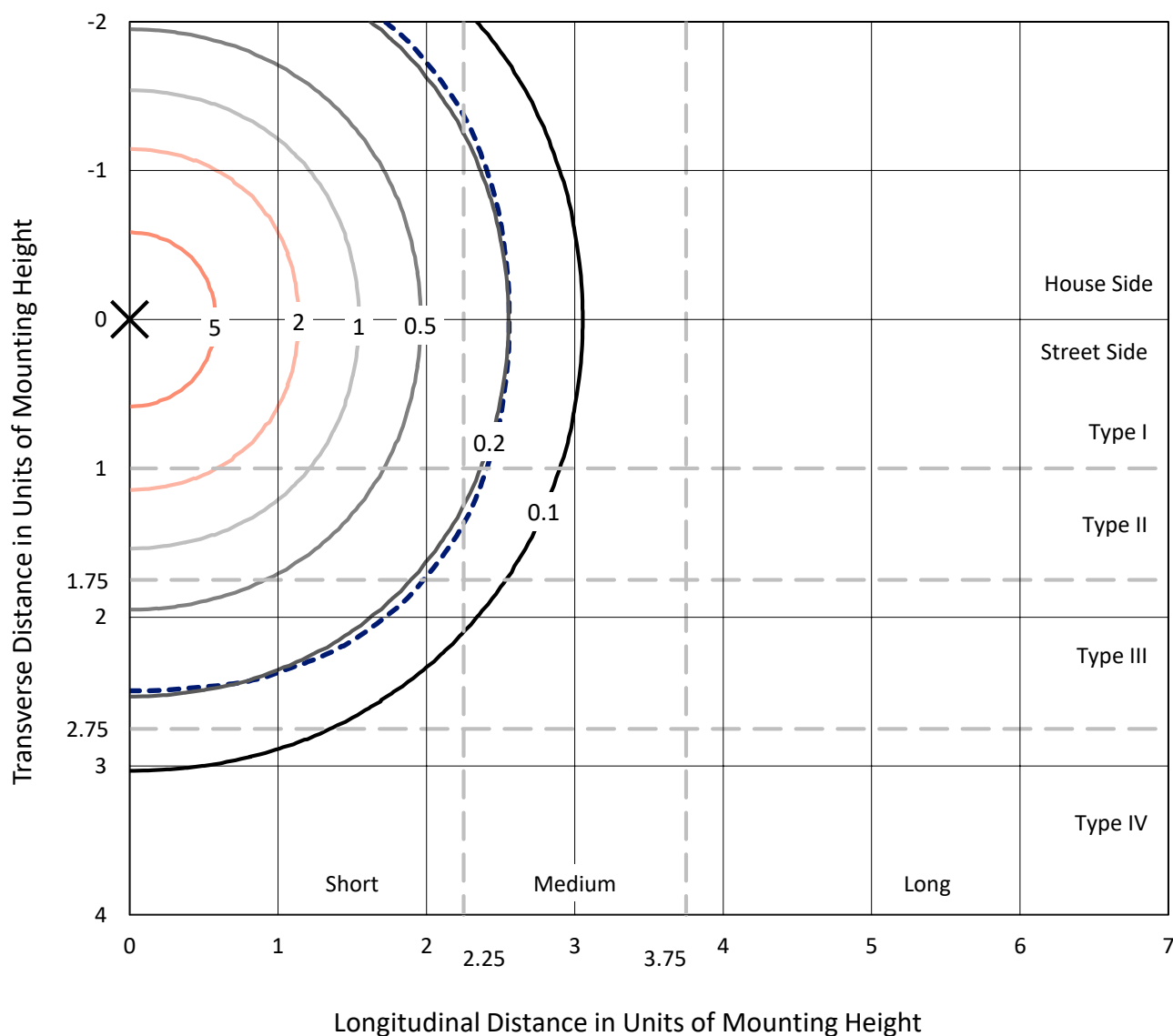
REPORT NUMBER: P198230

CATALOG NUMBER: TT-C1-LED-E1-CQ-LWR-LW-8030-UPL

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

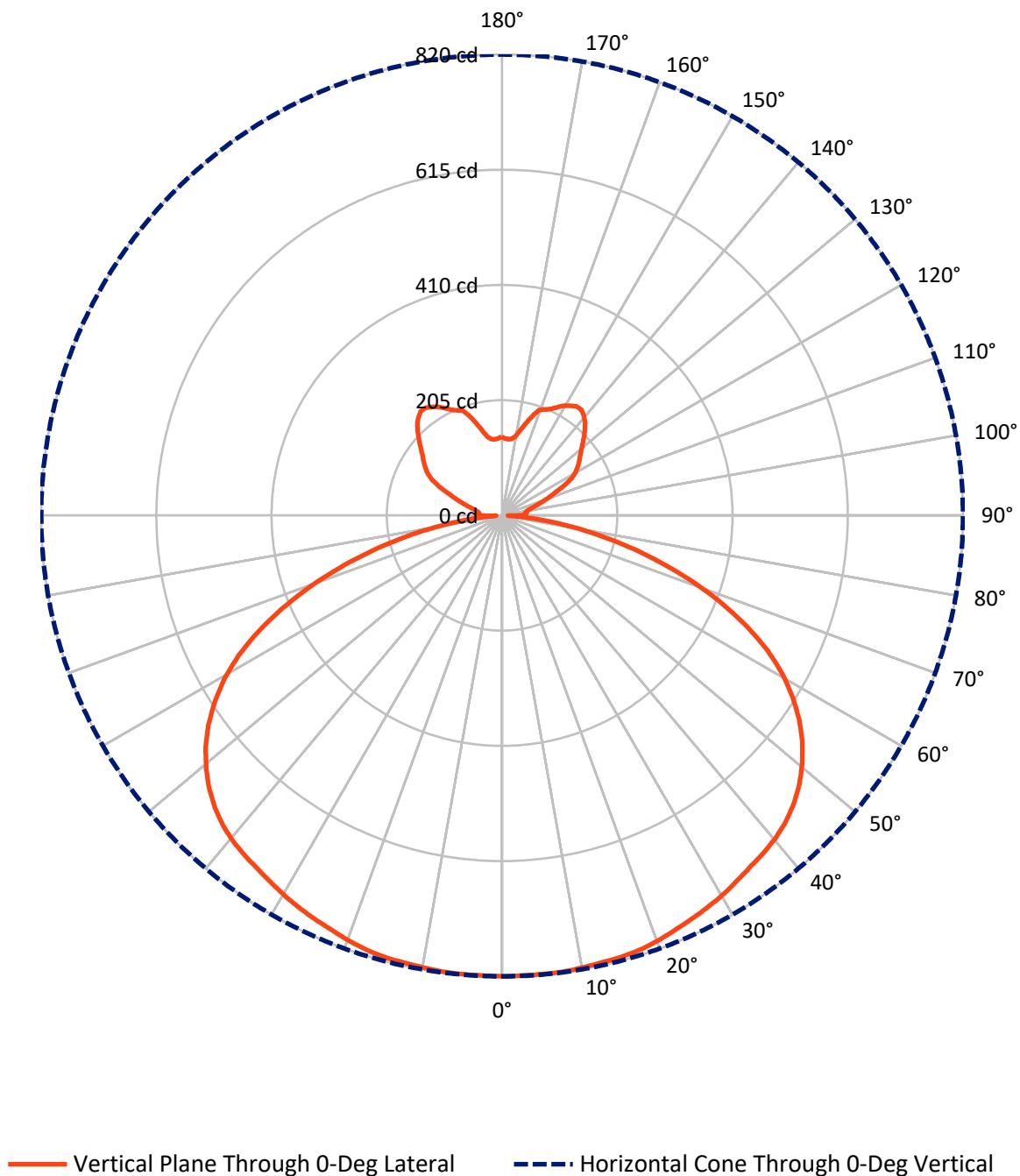


Based on 10 foot mounting height. Maximum calculated value = 8.2 fc
 Type V - Short - Non-Cutoff

REPORT NUMBER: P198230

CATALOG NUMBER: TT-C1-LED-E1-CQ-LWR-LW-8030-UPL

Luminous Intensity Polar Plot



REPORT NUMBER: P198230

CATALOG NUMBER: TT-C1-LED-E1-CQ-LWR-LW-8030-UPL

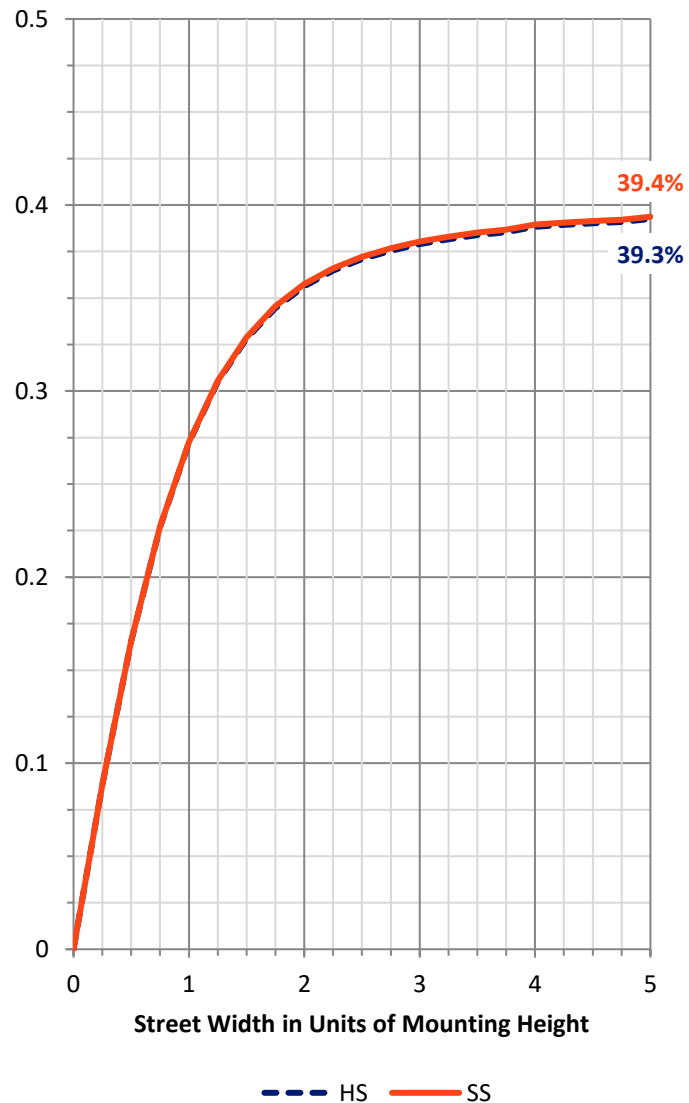
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1562.5	412.0	1974.5
	% Fixture	39.6	10.4	50.0
Street Side	Lumens	1562.5	412.0	1974.5
	% Fixture	39.6	10.4	50.0
Total	Lumens	3125.0	824.0	3948.9
	% Fixture	79.1	20.9	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.1	2.0
10°-20°	230.1	5.8
20°-30°	366.5	9.3
30°-40°	480.5	12.2
40°-50°	566.7	14.4
50°-60°	587.0	14.9
60°-70°	490.9	12.4
70°-80°	267.6	6.8
80°-90°	57.5	1.5
90°-100°	38.3	1.0
100°-110°	59.4	1.5
110°-120°	119.3	3.0
120°-130°	148.7	3.8
130°-140°	153.2	3.9
140°-150°	136.0	3.4
150°-160°	103.7	2.6
160°-170°	51.8	1.3
170°-180°	13.6	0.3
0°-90°	3125.0	79.1
0°-180°	3948.9	100.0

Coefficient of Utilization



REPORT NUMBER: P198230

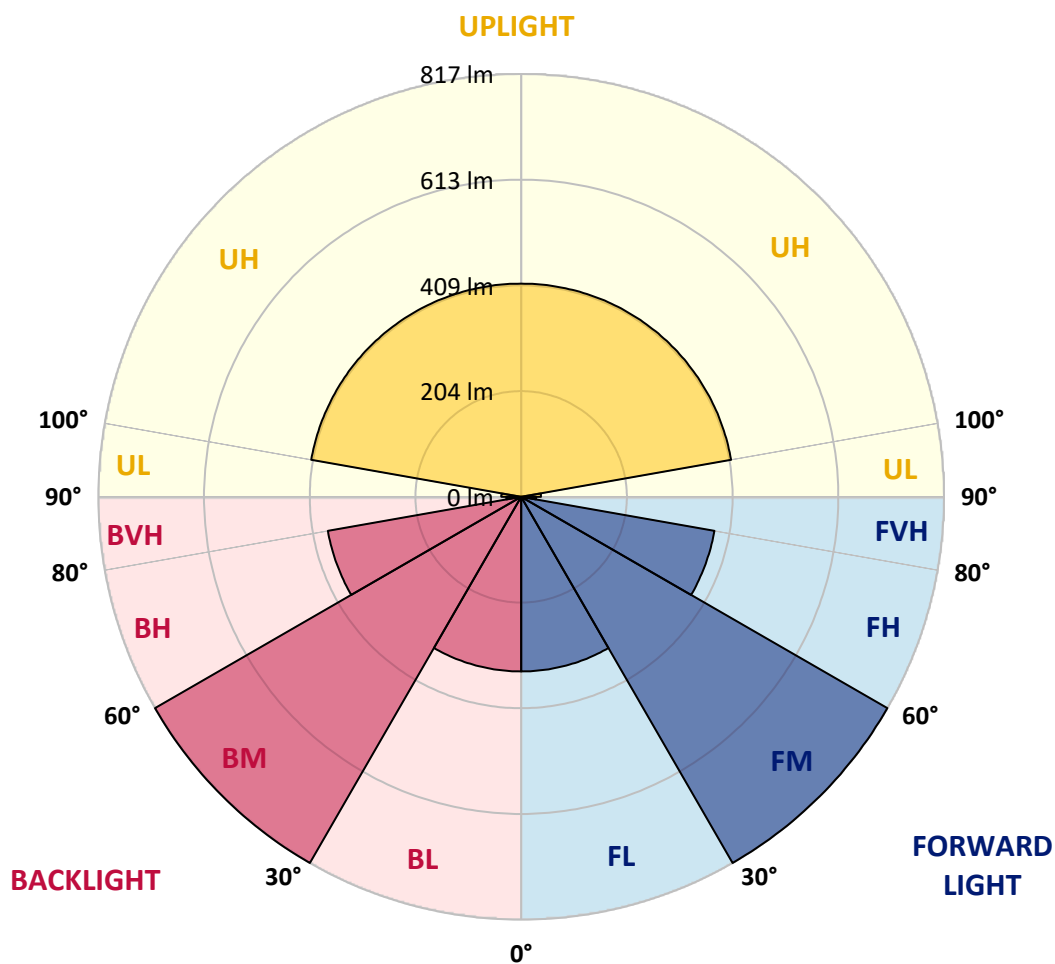
CATALOG NUMBER: TT-C1-LED-E1-CQ-LWR-LW-8030-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	337.4	8.5			
FM	(30°-60°)	817.1	20.7			
FH	(60°-80°)	379.2	9.6			G0/660
FVH	(80°-90°)	28.7	0.7			G1/100
BL	(0°-30°)	337.4	8.5	B1/500		
BM	(30°-60°)	817.1	20.7	B1/1000		
BH	(60°-80°)	379.2	9.6	B1/500		G0/660
BVH	(80°-90°)	28.7	0.7			G1/100
UL	(90°-100°)	38.3	1.0		U2/50	
UH	(100°-180°)	412.0	10.4		U3/500	

BUG Rating: B1-U4-G1

Type V Short



REPORT NUMBER: P198230

CATALOG NUMBER: TT-C1-LED-E1-CQ-LWR-LW-8030-UPL

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	820.1	820.1	820.1	820.1	820.1	820.1	820.1	820.1	820.1	820.1	820.1
2.5°	819.4	820.1	820.1	820.1	820.1	820.1	820.1	820.1	819.4	820.1	820.1
5°	819.4	819.4	819.4	819.4	820.1	819.4	819.4	819.4	819.4	819.4	819.4
7.5°	818.8	818.1	818.1	818.1	818.1	818.1	818.8	818.8	818.8	818.8	818.8
10°	816.8	816.8	816.8	816.8	816.8	816.8	816.8	816.8	816.8	816.8	816.8
12.5°	814.8	814.8	814.8	814.8	815.5	815.5	815.5	815.5	815.5	815.5	814.8
15°	813.5	813.5	813.5	813.5	813.5	813.5	813.5	813.5	813.5	813.5	813.5
17.5°	810.3	810.3	810.3	810.3	810.9	810.9	810.9	810.9	810.9	810.9	810.9
20°	805.0	805.0	805.0	805.0	805.0	805.7	806.3	806.3	806.3	806.3	806.3
22.5°	798.4	798.4	799.1	799.1	799.7	799.7	800.4	800.4	800.4	800.4	800.4
25°	792.5	792.5	792.5	793.2	793.2	793.2	793.8	794.5	794.5	794.5	793.8
27.5°	786.6	786.6	786.6	787.3	787.3	787.3	787.9	787.9	788.6	787.9	787.9
30°	780.0	779.4	779.4	780.0	780.7	780.7	781.4	781.4	781.4	781.4	780.7
32.5°	772.2	772.2	772.8	773.5	773.5	774.1	774.8	774.8	774.8	775.5	774.1
35°	764.9	765.6	765.6	766.3	767.6	768.2	768.9	769.5	769.5	769.5	768.2
37.5°	759.0	759.7	760.4	761.7	763.0	764.3	765.6	766.9	766.3	766.3	764.3
40°	751.8	752.5	753.8	755.1	757.7	759.0	761.0	762.3	763.0	762.3	760.4
42.5°	742.0	742.6	743.9	745.9	749.2	751.8	753.8	755.8	756.4	755.8	753.8
45°	728.8	729.5	730.8	733.4	737.4	740.0	743.3	745.2	746.6	746.6	744.6
47.5°	712.4	713.1	715.0	717.7	721.6	724.9	728.8	731.5	732.8	734.1	732.1
50°	692.1	692.7	695.3	698.6	701.9	706.5	711.1	715.0	717.0	717.7	717.0
52.5°	669.1	669.7	672.4	675.6	680.2	685.5	690.8	695.3	698.0	699.3	698.0
55°	641.5	642.8	644.8	649.4	654.6	659.2	665.8	671.1	674.3	675.0	674.3
57.5°	609.3	611.3	613.3	618.5	623.8	630.3	635.6	640.8	644.8	645.4	645.4
60°	573.2	574.5	576.5	581.8	587.7	592.3	599.5	604.7	608.0	608.0	608.7
62.5°	530.5	531.9	535.1	539.1	545.6	550.2	556.1	561.4	564.7	566.0	565.3
65°	480.6	481.9	483.9	489.2	494.4	499.7	505.6	510.2	513.5	514.1	513.5
67.5°	425.5	426.8	428.1	434.7	439.9	441.9	449.1	453.1	455.0	455.7	455.7
70°	367.0	367.7	369.7	373.0	378.9	380.8	385.4	388.7	390.0	392.7	390.7
72.5°	306.0	307.3	311.9	312.5	317.1	319.8	321.1	321.1	324.4	324.4	325.0
75°	245.6	246.2	248.2	248.9	252.1	252.1	251.5	252.8	255.4	255.4	256.1
77.5°	185.8	185.8	189.1	186.5	187.8	185.2	186.5	185.2	187.1	186.5	187.1
80°	130.0	130.0	132.0	129.4	130.0	127.4	128.0	127.4	127.4	128.0	128.0
82.5°	80.1	80.8	82.1	80.1	80.1	78.1	78.8	79.4	79.4	78.8	78.1
85°	39.4	39.4	40.7	40.1	39.4	38.1	38.7	39.4	39.4	38.7	38.7
87.5°	10.5	10.5	11.2	11.2	10.5	9.8	10.5	11.2	11.2	11.2	10.5
90°	36.0	36.0	36.0	36.0	35.0	34.0	31.0	29.0	27.0	26.0	26.0
92.5°	40.0	39.0	39.0	38.0	36.0	34.0	32.0	29.0	27.0	27.0	27.0
95°	44.0	43.0	42.0	41.0	38.0	36.0	34.0	32.0	31.0	30.0	30.0
97.5°	42.0	42.0	41.0	40.0	38.0	37.0	36.0	35.0	34.0	33.0	32.0
100°	45.0	45.0	45.0	44.0	42.0	40.0	39.0	38.0	36.0	36.0	35.0
102.5°	51.0	51.0	50.0	49.0	47.0	46.0	45.0	44.0	42.0	42.0	42.0
105°	60.0	60.0	59.0	57.0	55.0	54.0	53.0	53.0	51.0	52.0	52.0
107.5°	72.0	72.0	72.0	70.0	68.0	67.0	66.0	66.0	66.0	68.0	68.0
110°	86.0	86.0	87.0	89.0	86.0	85.0	85.0	86.0	86.0	87.0	86.0

REPORT NUMBER: P198230

CATALOG NUMBER: TT-C1-LED-E1-CQ-LWR-LW-8030-UPL

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	101.0	102.0	104.0	108.0	106.0	107.0	107.0	110.0	108.0	107.0	103.0
115°	121.0	122.0	123.0	128.0	126.0	128.0	127.0	129.0	126.0	124.0	120.0
117.5°	140.0	141.0	141.0	144.0	141.0	141.0	140.0	141.0	138.0	136.0	135.0
120°	152.0	153.0	154.0	155.0	151.0	149.0	147.0	149.0	147.0	147.0	148.0
122.5°	161.0	162.0	163.0	164.0	159.0	154.0	153.0	155.0	156.0	158.0	158.0
125°	169.0	169.0	170.0	172.0	168.0	163.0	160.0	165.0	166.0	168.0	167.0
127.5°	177.0	177.0	179.0	181.0	177.0	171.0	170.0	176.0	177.0	178.0	175.0
130°	187.0	188.0	190.0	191.0	185.0	179.0	179.0	186.0	187.0	186.0	183.0
132.5°	198.0	199.0	200.0	201.0	193.0	186.0	187.0	193.0	195.0	195.0	191.0
135°	210.0	210.0	211.0	209.0	199.0	192.0	193.0	199.0	202.0	201.0	197.0
137.5°	221.0	219.0	217.0	213.0	203.0	197.0	198.0	205.0	207.0	208.0	203.0
140°	229.0	226.0	222.0	216.0	205.0	200.0	201.0	207.0	210.0	213.0	212.0
142.5°	235.0	231.0	225.0	218.0	206.0	201.0	202.0	208.0	212.0	218.0	218.0
145°	235.0	230.0	225.0	218.0	207.0	202.0	204.0	211.0	215.0	223.0	225.0
147.5°	230.0	227.0	223.0	219.0	210.0	207.0	209.0	216.0	220.0	229.0	233.0
150°	224.0	221.0	219.0	220.0	215.0	214.0	216.0	222.0	227.0	235.0	239.0
152.5°	216.0	214.0	216.0	221.0	220.0	220.0	224.0	230.0	234.0	241.0	241.0
155°	208.0	207.0	211.0	219.0	222.0	224.0	229.0	237.0	239.0	243.0	239.0
157.5°	203.0	203.0	207.0	216.0	220.0	224.0	229.0	234.0	232.0	235.0	230.0
160°	199.0	198.0	203.0	210.0	212.0	213.0	216.0	219.0	216.0	219.0	216.0
162.5°	185.0	184.0	188.0	193.0	194.0	193.0	196.0	198.0	195.0	198.0	196.0
165°	169.0	167.0	169.0	173.0	173.0	173.0	175.0	176.0	174.0	177.0	175.0
167.5°	154.0	152.0	153.0	156.0	156.0	155.0	157.0	159.0	157.0	159.0	158.0
170°	142.0	141.0	142.0	145.0	144.0	144.0	146.0	147.0	146.0	147.0	147.0
172.5°	137.0	135.0	136.0	139.0	139.0	138.0	140.0	141.0	140.0	141.0	140.0
175°	136.0	134.0	135.0	137.0	137.0	137.0	138.0	139.0	138.0	139.0	138.0
177.5°	137.0	136.0	136.0	139.0	138.0	138.0	139.0	140.0	139.0	139.0	138.0
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: P198230

CATALOG NUMBER: TT-C1-LED-E1-CQ-LWR-LW-8030-UPL

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	820.1	820.1	820.1	820.1	820.1	820.1	820.1	820.1
2.5°	819.4	819.4	820.1	819.4	820.1	819.4	820.1	820.1
5°	819.4	819.4	819.4	819.4	819.4	819.4	819.4	819.4
7.5°	818.1	818.8	818.1	818.1	818.1	818.8	818.1	818.8
10°	816.8	816.8	816.8	816.8	816.8	816.8	816.8	816.8
12.5°	814.8	814.8	814.8	814.8	814.8	814.8	814.8	814.2
15°	813.5	812.9	812.9	812.9	812.2	812.2	812.2	812.2
17.5°	810.9	810.3	809.6	809.6	809.6	809.6	808.9	808.9
20°	806.3	805.7	805.0	805.0	804.3	804.3	803.7	803.7
22.5°	799.7	799.7	799.1	798.4	798.4	797.8	797.8	797.1
25°	793.8	793.2	792.5	791.9	791.2	791.2	790.6	789.9
27.5°	787.3	786.0	785.3	784.6	784.0	783.3	782.7	782.0
30°	780.0	778.7	777.4	776.8	775.5	774.1	773.5	772.8
32.5°	772.8	771.5	769.5	767.6	766.3	764.9	763.6	763.0
35°	766.9	764.3	762.3	759.7	757.7	755.8	755.1	754.4
37.5°	762.3	759.7	756.4	753.8	751.8	749.2	747.9	746.6
40°	757.7	754.4	750.5	747.2	744.6	741.3	740.0	738.7
42.5°	751.2	747.2	743.3	739.3	735.4	732.1	730.1	728.8
45°	742.0	738.0	733.4	728.2	724.2	720.3	718.3	717.0
47.5°	729.5	725.6	720.3	715.7	711.1	707.2	704.5	703.2
50°	714.4	710.4	705.2	699.9	695.3	690.8	688.8	686.8
52.5°	695.3	692.1	686.2	682.2	677.0	672.4	670.4	669.1
55°	671.7	668.4	662.5	658.6	653.3	649.4	646.8	644.8
57.5°	642.8	640.2	633.6	629.7	624.4	620.5	618.5	617.2
60°	607.4	604.7	598.2	594.2	589.6	585.0	583.7	582.4
62.5°	563.4	562.1	556.8	552.2	547.6	543.0	541.7	541.0
65°	512.2	510.8	506.2	502.3	498.4	494.4	493.1	491.8
67.5°	453.7	453.1	449.1	445.8	443.2	439.3	438.6	437.3
70°	391.3	390.0	386.7	384.1	382.1	378.9	378.2	376.9
72.5°	326.3	325.7	323.7	320.4	320.4	315.8	315.2	314.5
75°	254.8	258.0	255.4	254.1	254.1	251.5	251.5	250.8
77.5°	186.5	189.8	191.7	189.1	191.7	189.1	189.1	188.4
80°	127.4	130.0	132.0	130.0	133.3	131.3	131.3	133.9
82.5°	77.5	80.1	81.4	80.8	82.7	82.1	81.4	83.4
85°	38.1	39.4	40.1	40.1	40.7	39.4	40.7	41.4
87.5°	9.8	10.5	11.2	10.5	11.2	11.2	11.2	11.8
90°	28.0	30.0	32.0	33.0	34.0	34.0	34.0	34.0
92.5°	28.0	30.0	32.0	33.0	35.0	36.0	36.0	36.0
95°	30.0	32.0	34.0	35.0	37.0	38.0	39.0	38.0
97.5°	33.0	34.0	34.0	35.0	36.0	36.0	36.0	36.0
100°	36.0	37.0	38.0	38.0	38.0	38.0	37.0	37.0
102.5°	43.0	44.0	44.0	42.0	42.0	41.0	41.0	41.0
105°	54.0	54.0	53.0	51.0	49.0	48.0	48.0	49.0
107.5°	68.0	68.0	66.0	63.0	60.0	59.0	59.0	60.0
110°	84.0	83.0	84.0	81.0	78.0	76.0	74.0	75.0

REPORT NUMBER: P198230

CATALOG NUMBER: TT-C1-LED-E1-CQ-LWR-LW-8030-UPL

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	102.0	102.0	105.0	103.0	100.0	98.0	95.0	94.0
115°	121.0	123.0	125.0	124.0	123.0	121.0	116.0	113.0
117.5°	138.0	140.0	141.0	139.0	139.0	139.0	133.0	129.0
120°	150.0	151.0	153.0	148.0	148.0	148.0	145.0	142.0
122.5°	159.0	160.0	162.0	156.0	155.0	156.0	153.0	150.0
125°	167.0	167.0	168.0	164.0	163.0	164.0	160.0	158.0
127.5°	176.0	175.0	175.0	173.0	173.0	173.0	166.0	163.0
130°	183.0	182.0	183.0	181.0	184.0	181.0	171.0	169.0
132.5°	190.0	189.0	192.0	189.0	192.0	190.0	179.0	176.0
135°	196.0	197.0	201.0	199.0	199.0	195.0	185.0	184.0
137.5°	203.0	205.0	210.0	207.0	204.0	198.0	191.0	190.0
140°	212.0	214.0	217.0	214.0	209.0	202.0	195.0	195.0
142.5°	220.0	222.0	223.0	217.0	211.0	204.0	198.0	198.0
145°	230.0	230.0	227.0	217.0	211.0	205.0	201.0	202.0
147.5°	239.0	236.0	229.0	218.0	212.0	207.0	204.0	206.0
150°	242.0	240.0	232.0	220.0	214.0	211.0	210.0	211.0
152.5°	242.0	241.0	235.0	223.0	219.0	217.0	215.0	216.0
155°	238.0	237.0	234.0	227.0	224.0	223.0	220.0	219.0
157.5°	228.0	229.0	229.0	226.0	226.0	225.0	222.0	219.0
160°	215.0	217.0	219.0	219.0	221.0	222.0	218.0	215.0
162.5°	196.0	199.0	200.0	201.0	204.0	208.0	207.0	207.0
165°	176.0	179.0	181.0	181.0	185.0	189.0	190.0	192.0
167.5°	160.0	163.0	165.0	164.0	168.0	171.0	172.0	174.0
170°	148.0	150.0	152.0	152.0	155.0	158.0	159.0	160.0
172.5°	141.0	144.0	145.0	144.0	146.0	149.0	149.0	151.0
175°	138.0	140.0	141.0	140.0	141.0	143.0	143.0	144.0
177.5°	138.0	140.0	140.0	138.0	140.0	141.0	141.0	141.0
180°	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0

(END OF REPORT)