

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: P198310

Luminaire Tested: **TT-C2-LED-E1-DL-MS/DIM-8030-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198310
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-DL-MS/DIM-8030-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
DRIVE LANE DISTRIBUTION WITH DIMMING OCCUPANCY SENSOR
Light Source: (160) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3604.6 lumens
Efficiency: N/A
Efficacy: 61.3 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U4 - G2

Input Watts (W): 58.8
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

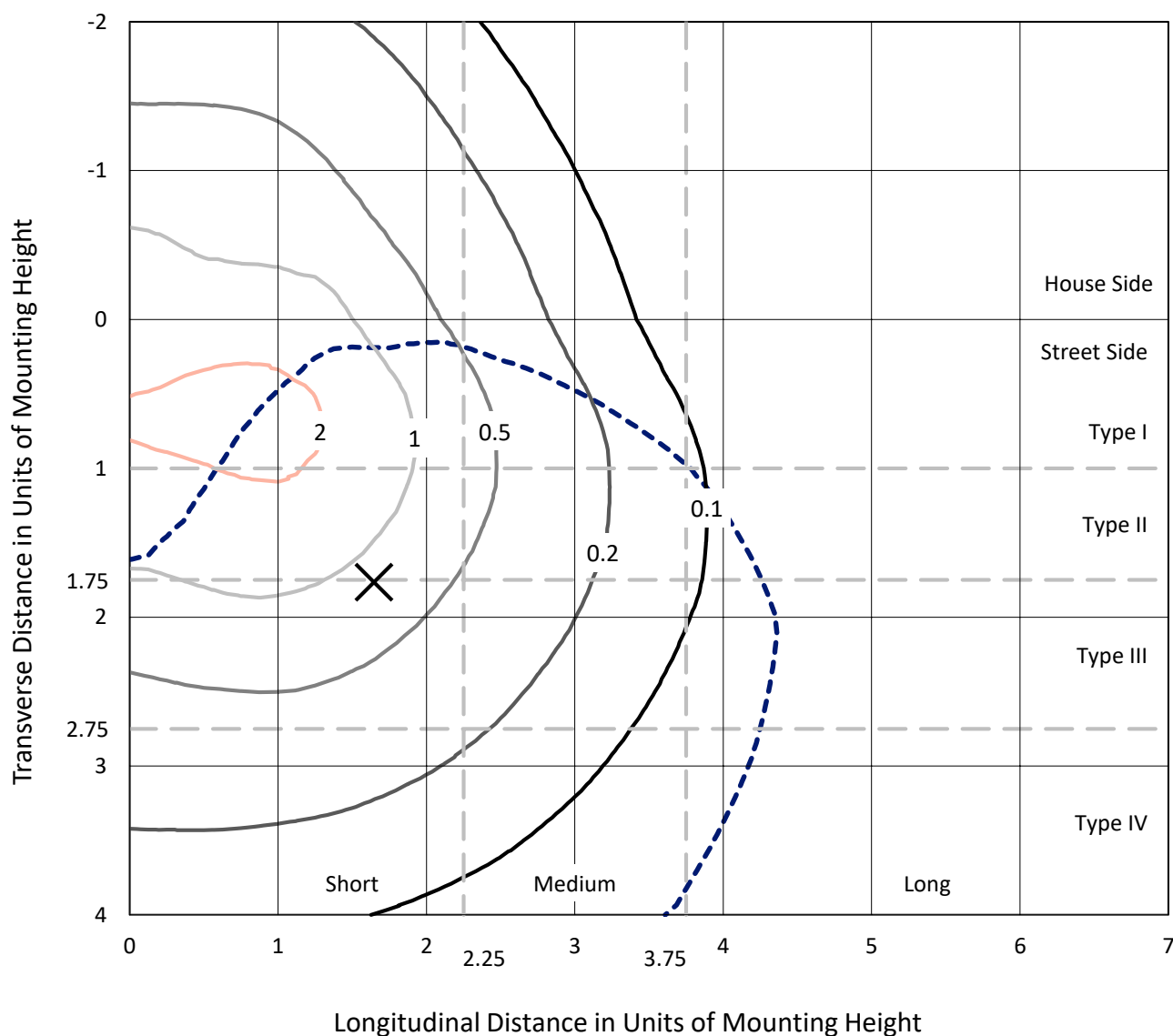


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

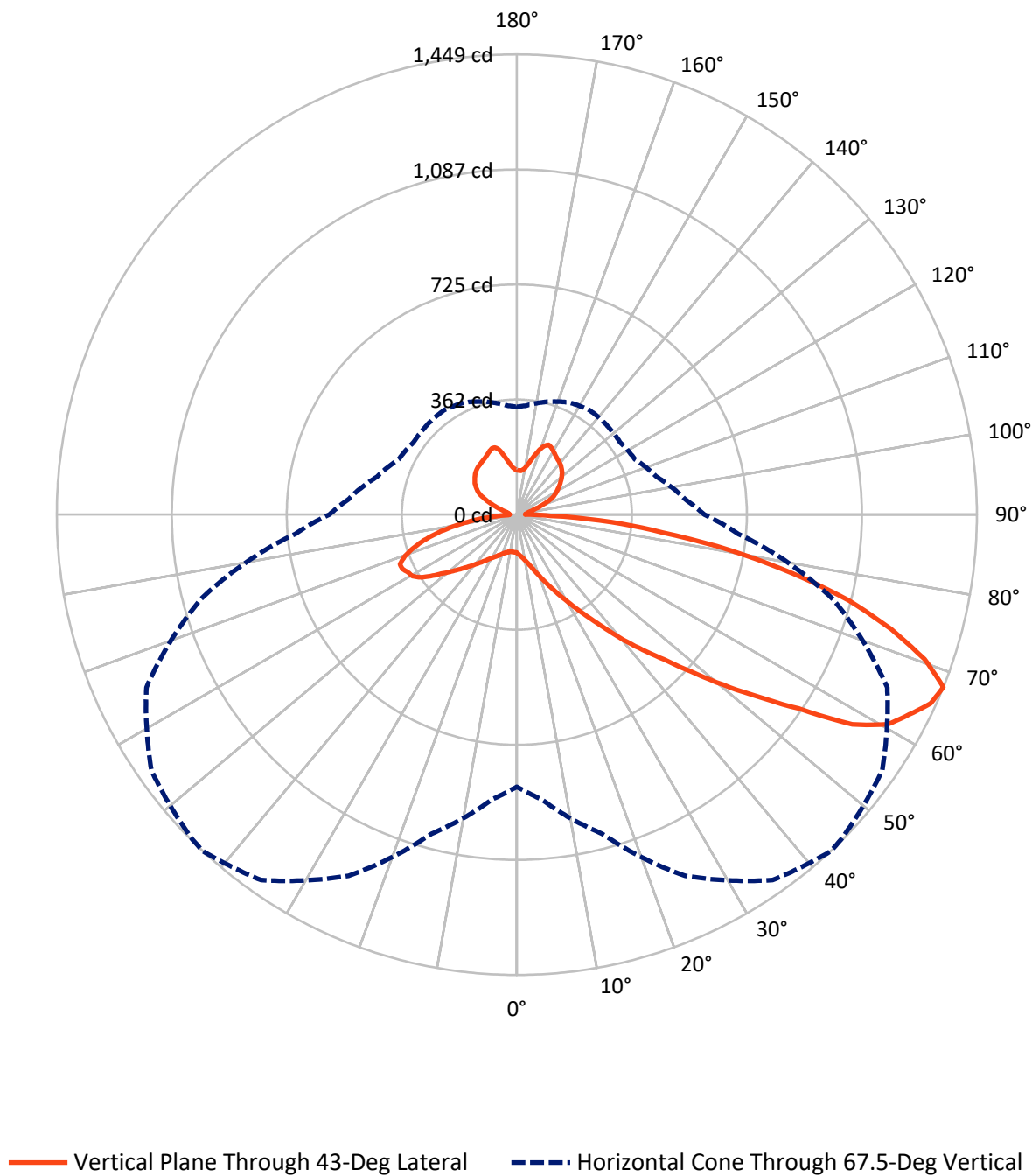


Based on 10 foot mounting height. Maximum calculated value = 2.3 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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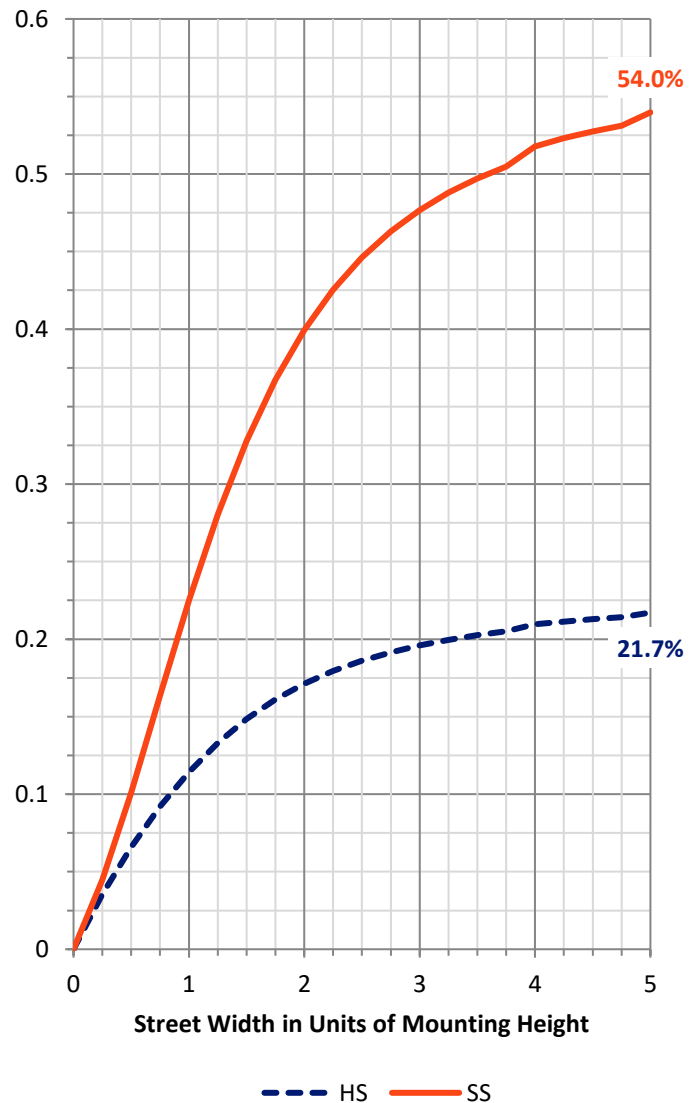
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	801.4	387.3	1188.8
	% Fixture	22.2	10.7	33.0
Street Side	Lumens	2003.2	412.6	2415.8
	% Fixture	55.6	11.4	67.0
Total	Lumens	2804.6	799.9	3604.6
	% Fixture	77.8	22.2	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	12.2	0.3
10°-20°	42.4	1.2
20°-30°	91.9	2.6
30°-40°	177.5	4.9
40°-50°	325.9	9.0
50°-60°	562.9	15.6
60°-70°	761.1	21.1
70°-80°	637.4	17.7
80°-90°	193.2	5.4
90°-100°	36.3	1.0
100°-110°	55.2	1.5
110°-120°	110.8	3.1
120°-130°	144.2	4.0
130°-140°	148.0	4.1
140°-150°	133.4	3.7
150°-160°	102.6	2.8
160°-170°	55.1	1.5
170°-180°	14.3	0.4
0°-90°	2804.6	77.8
0°-180°	3604.6	100.0

Coefficient of Utilization



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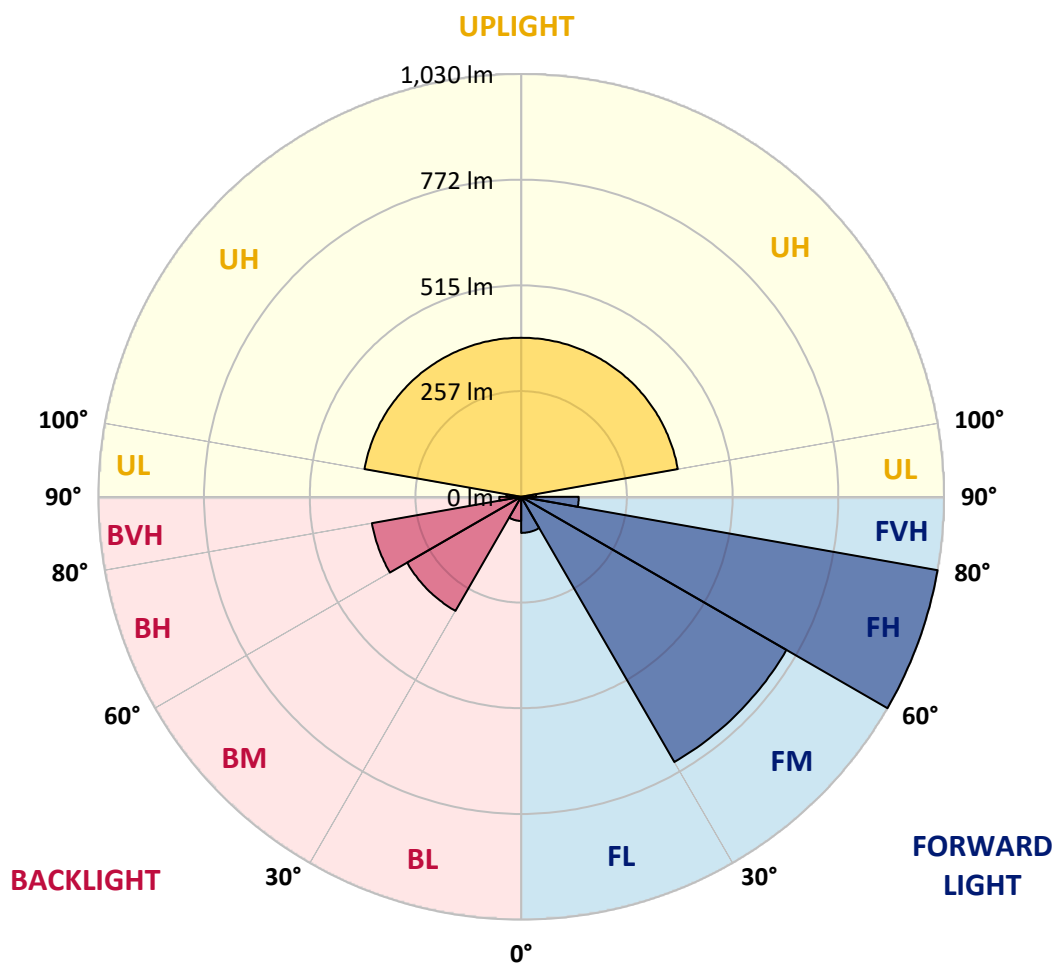
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	87.9	2.4			
FM	(30°-60°)	745.7	20.7			
FH	(60°-80°)	1029.6	28.6			G1/1800
FVH	(80°-90°)	140.0	3.9			G2/225
BL	(0°-30°)	58.6	1.6	B0/110		
BM	(30°-60°)	320.7	8.9	B1/1000		
BH	(60°-80°)	369.0	10.2	B1/500		G1/500
BVH	(80°-90°)	53.2	1.5			G1/100
UL	(90°-100°)	36.3	1.0		U2/50	
UH	(100°-180°)	387.3	10.7		U3/500	

BUG Rating: B1-U4-G2

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	43°	45°	55°	65°	75°	85°
0°	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6
2.5°	127.5	127.5	127.0	127.0	126.5	125.9	125.4	125.4	124.3	123.8	123.3
5°	134.5	134.5	134.5	133.4	132.3	131.8	131.8	130.2	128.6	127.0	125.4
7.5°	143.0	142.5	142.5	141.4	139.8	138.2	137.7	136.6	133.9	131.8	128.6
10°	152.6	152.6	152.6	150.5	148.9	147.3	146.2	144.1	140.9	137.1	133.9
12.5°	164.3	164.3	164.9	162.2	160.6	157.4	156.9	153.7	149.4	144.1	139.3
15°	177.7	179.8	178.2	178.2	172.9	171.3	170.2	166.5	160.6	153.7	147.3
17.5°	196.9	196.3	194.2	194.7	191.0	188.3	185.7	179.3	172.9	163.3	154.7
20°	218.8	217.7	215.0	214.0	211.8	207.0	206.0	197.4	187.3	177.1	165.9
22.5°	240.1	240.6	239.6	237.4	235.3	231.6	229.4	220.4	206.0	192.6	176.1
25°	261.4	263.6	263.6	265.2	261.4	256.6	255.0	244.4	228.4	208.1	190.5
27.5°	288.1	288.7	290.3	292.4	291.3	287.1	283.9	272.1	252.4	230.0	206.5
30°	314.8	316.9	318.0	322.3	323.3	320.1	316.9	303.6	283.3	254.0	224.1
32.5°	343.6	346.8	348.9	354.8	361.8	359.6	358.6	343.1	319.1	284.9	248.1
35°	376.2	376.7	383.6	397.0	402.8	403.9	401.2	390.6	361.2	320.7	274.8
37.5°	407.1	409.8	421.5	438.6	448.7	455.7	456.7	446.6	414.0	362.8	304.1
40°	441.3	442.9	462.1	480.2	507.4	518.6	516.0	505.3	470.1	411.4	338.8
42.5°	476.5	481.8	499.9	529.8	563.4	582.1	586.9	574.1	538.9	469.0	383.6
45°	510.6	519.2	538.9	577.8	628.0	650.4	655.2	661.6	628.5	541.0	443.4
47.5°	548.0	552.8	582.6	634.4	689.4	737.4	751.3	756.1	705.4	608.8	485.5
50°	586.9	588.0	629.6	700.0	785.9	841.4	842.5	867.0	802.5	694.7	537.3
52.5°	628.5	629.6	678.7	769.4	882.5	951.9	965.7	973.7	940.7	806.2	632.8
55°	669.6	672.3	733.1	863.3	1003.6	1076.7	1109.3	1143.9	1065.5	892.6	667.5
57.5°	712.8	718.2	807.3	965.7	1137.0	1246.4	1262.9	1268.3	1145.6	927.3	678.2
60°	752.3	764.1	884.6	1065.0	1249.6	1341.4	1343.5	1312.6	1176.0	947.6	678.7
62.5°	793.4	808.3	955.6	1160.0	1336.0	1386.2	1391.5	1341.9	1229.3	1015.4	725.6
65°	824.3	852.1	1009.0	1226.7	1370.2	1432.6	1442.2	1428.3	1313.1	1061.2	741.6
67.5°	856.4	900.1	1039.9	1254.4	1404.3	1449.1	1445.4	1404.9	1287.5	1031.4	701.1
70°	896.9	928.9	1063.9	1244.8	1355.2	1362.2	1362.2	1312.0	1206.4	971.6	651.5
72.5°	912.9	938.0	1037.2	1168.0	1235.2	1233.1	1223.4	1195.7	1095.9	879.8	577.8
75°	895.8	899.0	944.9	1024.4	1075.1	1080.5	1069.3	1030.3	951.9	763.0	494.6
77.5°	803.5	796.1	806.7	846.2	891.0	887.3	885.7	841.4	780.6	629.6	406.0
80°	632.8	637.1	637.6	645.1	672.3	681.9	671.8	638.1	597.1	489.8	314.3
82.5°	434.9	441.8	448.2	438.6	450.3	461.0	459.4	427.4	414.0	343.6	217.2
85°	234.2	250.8	254.5	259.8	286.0	298.8	294.0	270.0	251.3	212.4	131.3
87.5°	47.5	38.9	55.5	79.0	99.8	107.8	121.1	91.2	72.6	53.4	29.9
90°	36.0	36.0	36.0	34.0	29.0	26.4	26.0	28.0	32.0	34.0	34.0
92.5°	40.0	39.0	38.0	34.0	29.0	27.0	27.0	28.0	32.0	35.0	36.0
95°	44.0	43.0	41.0	36.0	32.0	30.4	30.0	30.0	34.0	37.0	39.0
97.5°	42.0	42.0	40.0	37.0	35.0	33.4	33.0	33.0	34.0	36.0	36.0
100°	45.0	45.0	44.0	40.0	38.0	36.0	36.0	36.0	38.0	38.0	37.0
102.5°	51.0	51.0	49.0	46.0	44.0	42.0	42.0	43.0	44.0	42.0	41.0
105°	60.0	60.0	57.0	54.0	53.0	51.6	52.0	54.0	53.0	49.0	48.0
107.5°	72.0	72.0	70.0	67.0	66.0	67.2	68.0	68.0	66.0	60.0	59.0
110°	86.0	86.0	89.0	85.0	86.0	86.6	87.0	84.0	84.0	78.0	74.0

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CATALOG NUMBER: TT-C2-LED-E1-DL-MS/DIM-8030-UPL

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	43°	45°	55°	65°	75°	85°
112.5°	101.0	102.0	108.0	107.0	110.0	107.4	107.0	102.0	105.0	100.0	95.0
115°	121.0	122.0	128.0	128.0	129.0	124.8	124.0	121.0	125.0	123.0	116.0
117.5°	140.0	141.0	144.0	141.0	141.0	136.8	136.0	138.0	141.0	139.0	133.0
120°	152.0	153.0	155.0	149.0	149.0	147.0	147.0	150.0	153.0	148.0	145.0
122.5°	161.0	162.0	164.0	154.0	155.0	157.2	158.0	159.0	162.0	155.0	153.0
125°	169.0	169.0	172.0	163.0	165.0	167.2	168.0	167.0	168.0	163.0	160.0
127.5°	177.0	177.0	181.0	171.0	176.0	177.6	178.0	176.0	175.0	173.0	166.0
130°	187.0	188.0	191.0	179.0	186.0	186.4	186.0	183.0	183.0	184.0	171.0
132.5°	198.0	199.0	201.0	186.0	193.0	195.0	195.0	190.0	192.0	192.0	179.0
135°	210.0	210.0	209.0	192.0	199.0	201.4	201.0	196.0	201.0	199.0	185.0
137.5°	221.0	219.0	213.0	197.0	205.0	207.6	208.0	203.0	210.0	204.0	191.0
140°	229.0	226.0	216.0	200.0	207.0	211.8	213.0	212.0	217.0	209.0	195.0
142.5°	235.0	231.0	218.0	201.0	208.0	215.6	218.0	220.0	223.0	211.0	198.0
145°	235.0	230.0	218.0	202.0	211.0	219.8	223.0	230.0	227.0	211.0	201.0
147.5°	230.0	227.0	219.0	207.0	216.0	225.4	229.0	239.0	229.0	212.0	204.0
150°	224.0	221.0	220.0	214.0	222.0	231.8	235.0	242.0	232.0	214.0	210.0
152.5°	216.0	214.0	221.0	220.0	230.0	238.2	241.0	242.0	235.0	219.0	215.0
155°	208.0	207.0	219.0	224.0	237.0	241.4	243.0	238.0	234.0	224.0	220.0
157.5°	203.0	203.0	216.0	224.0	234.0	233.8	235.0	228.0	229.0	226.0	222.0
160°	199.0	198.0	210.0	213.0	219.0	217.8	219.0	215.0	219.0	221.0	218.0
162.5°	185.0	184.0	193.0	193.0	198.0	196.8	198.0	196.0	200.0	204.0	207.0
165°	169.0	167.0	173.0	173.0	176.0	175.8	177.0	176.0	181.0	185.0	190.0
167.5°	154.0	152.0	156.0	155.0	159.0	158.2	159.0	160.0	165.0	168.0	172.0
170°	142.0	141.0	145.0	144.0	147.0	146.6	147.0	148.0	152.0	155.0	159.0
172.5°	137.0	135.0	139.0	138.0	141.0	140.6	141.0	141.0	145.0	146.0	149.0
175°	136.0	134.0	137.0	137.0	139.0	138.6	139.0	138.0	141.0	141.0	143.0
177.5°	137.0	136.0	139.0	138.0	140.0	139.0	139.0	138.0	140.0	140.0	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

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6
2.5°	122.7	122.2	121.7	120.6	119.5	119.0	118.5	117.9	117.9	117.9	117.9
5°	124.9	124.3	122.7	121.7	120.1	119.0	117.9	117.4	116.3	115.8	116.3
7.5°	127.5	126.5	123.8	121.7	120.1	118.5	117.4	116.8	116.3	115.2	115.2
10°	131.8	130.2	126.5	123.3	121.1	119.0	117.4	116.8	116.3	115.8	115.8
12.5°	137.7	134.5	130.2	126.5	122.7	120.1	119.0	117.9	117.4	117.4	117.4
15°	143.5	140.9	135.0	129.1	125.4	123.3	121.7	120.1	120.1	120.1	120.1
17.5°	151.5	146.7	139.8	133.4	129.1	125.9	124.9	123.8	123.8	124.3	124.3
20°	160.1	154.7	146.2	139.3	133.9	130.2	129.1	128.6	128.6	129.1	129.1
22.5°	169.7	163.3	152.6	144.6	139.3	136.6	134.5	134.5	134.5	135.0	135.5
25°	182.5	173.4	160.6	151.5	145.1	141.9	140.9	140.9	140.9	141.9	141.9
27.5°	195.8	186.2	169.7	158.5	152.1	148.9	147.3	147.8	148.3	148.9	148.9
30°	211.3	200.1	179.8	168.1	160.1	156.3	154.7	155.3	155.8	156.9	155.8
32.5°	230.5	216.6	193.7	178.2	169.1	165.4	164.3	164.9	164.9	164.9	165.4
35°	256.1	238.5	210.2	190.5	181.4	176.1	175.0	175.0	175.0	174.5	174.5
37.5°	281.2	258.8	226.8	207.0	195.3	188.9	185.7	185.7	185.7	185.7	185.7
40°	310.5	284.4	248.1	224.6	210.8	202.8	198.5	196.9	196.3	195.8	194.7
42.5°	348.4	318.5	272.6	243.8	227.3	218.8	212.4	209.2	207.0	206.5	204.9
45°	399.1	362.3	309.5	272.1	248.1	236.4	228.9	222.5	218.8	217.7	215.0
47.5°	436.5	393.8	335.1	296.7	271.6	256.6	245.4	236.9	231.6	228.9	227.3
50°	475.4	435.4	370.8	323.3	297.7	280.7	266.2	254.5	244.9	241.2	240.6
52.5°	560.8	507.4	419.9	361.2	324.4	305.2	290.3	276.4	261.4	255.0	256.6
55°	587.4	532.0	450.3	398.0	360.2	337.7	316.4	298.3	281.2	270.0	270.5
57.5°	590.6	534.1	456.7	410.3	384.7	366.6	347.9	322.8	302.0	286.5	286.0
60°	586.4	530.4	455.1	408.7	389.5	384.2	372.4	350.5	320.7	302.5	300.4
62.5°	620.0	560.2	472.2	414.6	390.6	388.4	384.7	371.9	341.5	318.0	314.3
65°	626.4	564.0	481.3	430.0	407.6	399.6	395.4	380.4	360.7	330.8	328.1
67.5°	590.1	534.1	456.7	410.8	397.0	399.6	400.7	389.5	367.6	344.1	338.8
70°	546.9	490.9	424.2	379.9	370.3	375.6	385.8	385.8	369.8	350.0	350.5
72.5°	482.3	437.0	376.2	344.1	334.5	341.5	353.2	362.3	358.0	351.1	351.6
75°	413.0	373.5	323.3	299.9	292.9	301.5	313.2	323.9	330.3	335.1	338.3
77.5°	339.9	310.5	268.4	246.0	246.0	254.0	265.2	274.8	285.5	297.7	299.9
80°	261.4	238.0	207.0	191.5	193.1	199.6	211.3	219.8	226.2	236.9	238.5
82.5°	184.6	170.7	144.6	133.4	136.1	144.6	149.9	155.8	160.6	163.3	166.5
85°	108.8	98.2	86.4	82.7	82.7	85.9	92.8	93.9	94.4	95.0	94.4
87.5°	27.2	29.9	25.6	25.1	25.1	27.2	26.1	28.3	28.3	29.3	27.2
90°	34.0	34.0	34.0	32.0	27.0	21.0	25.0	30.0	33.0	34.0	34.0
92.5°	36.0	35.0	33.0	31.0	27.0	23.0	25.0	29.0	34.0	36.0	36.0
95°	38.0	38.0	35.0	33.0	29.0	26.0	27.0	31.0	34.0	35.0	36.0
97.5°	36.0	35.0	35.0	34.0	30.0	25.0	26.0	30.0	33.0	35.0	35.0
100°	37.0	37.0	38.0	38.0	33.0	27.0	28.0	32.0	35.0	36.0	36.0
102.5°	41.0	42.0	43.0	45.0	39.0	32.0	33.0	35.0	38.0	40.0	41.0
105°	49.0	49.0	52.0	54.0	48.0	39.0	38.0	41.0	44.0	48.0	49.0
107.5°	60.0	61.0	65.0	65.0	58.0	50.0	47.0	50.0	54.0	60.0	61.0
110°	75.0	77.0	78.0	75.0	71.0	65.0	60.0	62.0	67.0	73.0	74.0

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CATALOG NUMBER: TT-C2-LED-E1-DL-MS/DIM-8030-UPL

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	94.0	94.0	91.0	86.0	84.0	82.0	77.0	80.0	85.0	87.0	87.0
115°	113.0	111.0	104.0	100.0	99.0	102.0	99.0	103.0	106.0	102.0	102.0
117.5°	129.0	128.0	121.0	117.0	116.0	120.0	121.0	125.0	125.0	120.0	120.0
120°	142.0	142.0	137.0	134.0	134.0	137.0	137.0	139.0	139.0	134.0	136.0
122.5°	150.0	153.0	151.0	148.0	149.0	149.0	145.0	148.0	149.0	145.0	146.0
125°	158.0	162.0	162.0	159.0	160.0	159.0	149.0	154.0	156.0	154.0	154.0
127.5°	163.0	169.0	170.0	168.0	168.0	169.0	154.0	158.0	163.0	160.0	161.0
130°	169.0	176.0	178.0	174.0	175.0	175.0	159.0	164.0	169.0	164.0	167.0
132.5°	176.0	182.0	186.0	181.0	183.0	181.0	165.0	171.0	176.0	171.0	174.0
135°	184.0	190.0	195.0	190.0	191.0	187.0	170.0	177.0	184.0	179.0	179.0
137.5°	190.0	196.0	204.0	200.0	199.0	191.0	175.0	182.0	192.0	187.0	187.0
140°	195.0	201.0	213.0	212.0	206.0	195.0	180.0	186.0	200.0	195.0	196.0
142.5°	198.0	204.0	220.0	222.0	212.0	197.0	184.0	190.0	205.0	204.0	205.0
145°	202.0	208.0	225.0	230.0	216.0	199.0	187.0	193.0	208.0	211.0	214.0
147.5°	206.0	212.0	230.0	236.0	219.0	202.0	191.0	195.0	212.0	220.0	225.0
150°	211.0	216.0	231.0	235.0	219.0	205.0	194.0	199.0	215.0	227.0	233.0
152.5°	216.0	220.0	229.0	230.0	220.0	208.0	201.0	205.0	219.0	232.0	239.0
155°	219.0	221.0	224.0	222.0	220.0	213.0	208.0	212.0	224.0	234.0	240.0
157.5°	219.0	219.0	216.0	213.0	216.0	219.0	215.0	220.0	229.0	232.0	235.0
160°	215.0	214.0	210.0	208.0	213.0	223.0	224.0	228.0	233.0	229.0	232.0
162.5°	207.0	207.0	204.0	204.0	209.0	221.0	227.0	231.0	230.0	224.0	226.0
165°	192.0	194.0	196.0	198.0	203.0	212.0	216.0	219.0	220.0	215.0	217.0
167.5°	174.0	177.0	181.0	184.0	189.0	195.0	196.0	199.0	200.0	197.0	200.0
170°	160.0	163.0	166.0	168.0	172.0	177.0	178.0	180.0	181.0	178.0	181.0
172.5°	151.0	153.0	155.0	156.0	159.0	162.0	162.0	164.0	165.0	163.0	166.0
175°	144.0	146.0	147.0	148.0	149.0	151.0	151.0	152.0	153.0	151.0	153.0
177.5°	141.0	142.0	142.0	142.0	143.0	144.0	143.0	144.0	145.0	143.0	145.0
180°	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0

(END OF REPORT)