

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: P198306

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198306
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-CG-MS/DIM-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
DRIVE LANE DISTRIBUTION WITH CLEAR GLASS LENS AND DIMMING OCCUPANCY SENSOR
Light Source: (160) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4322.9 lumens
Efficiency: N/A
Efficacy: 73.5 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U4 - G1

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



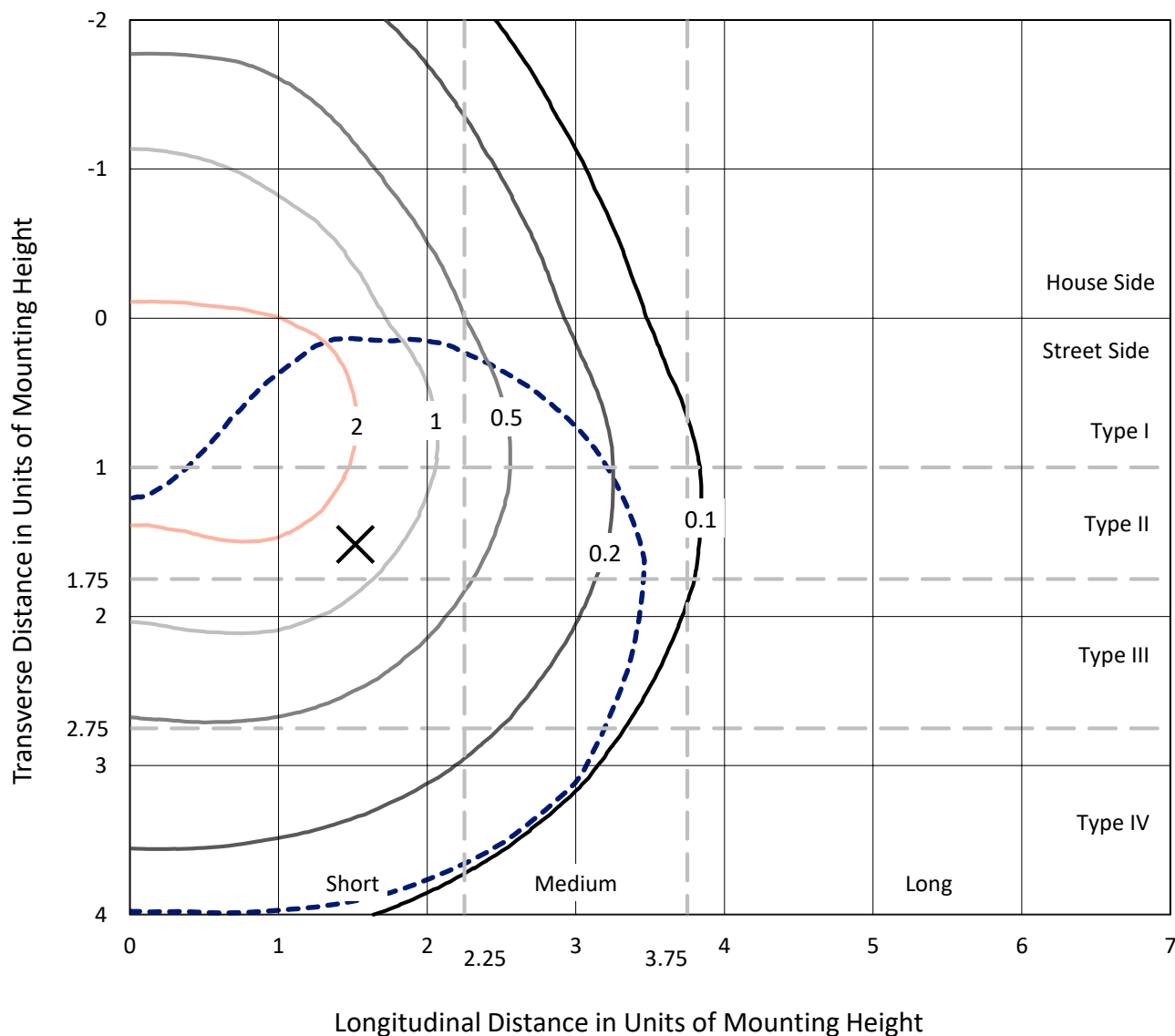
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

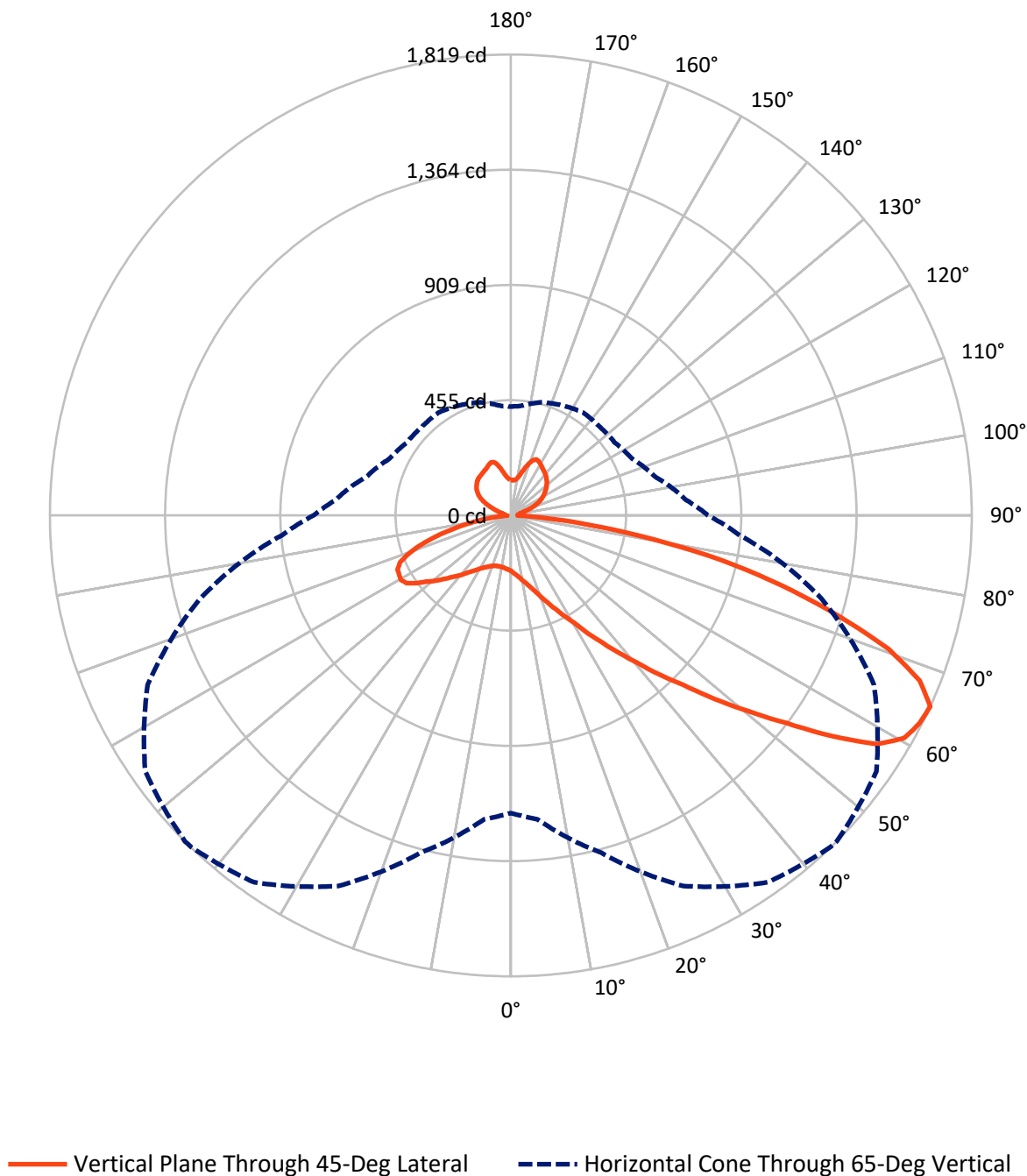


Based on 10 foot mounting height. Maximum calculated value = 3.4 fc
Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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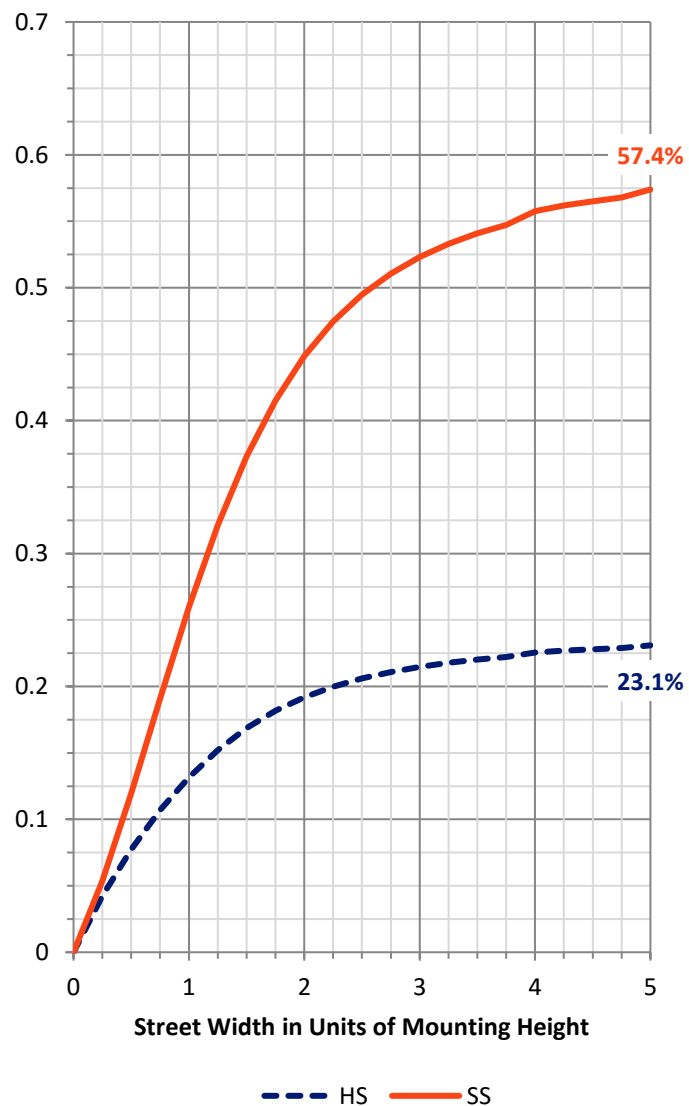
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1009.6	387.3	1396.9
	% Fixture	23.4	9.0	32.3
Street Side	Lumens	2513.4	412.6	2926.0
	% Fixture	58.1	9.5	67.7
Total	Lumens	3523.0	800.0	4322.9
	% Fixture	81.5	18.5	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.7	0.5
10°-20°	72.0	1.7
20°-30°	146.3	3.4
30°-40°	269.1	6.2
40°-50°	476.7	11.0
50°-60°	782.0	18.1
60°-70°	960.8	22.2
70°-80°	661.1	15.3
80°-90°	133.3	3.1
90°-100°	36.3	0.8
100°-110°	55.2	1.3
110°-120°	110.8	2.6
120°-130°	144.2	3.3
130°-140°	148.0	3.4
140°-150°	133.4	3.1
150°-160°	102.6	2.4
160°-170°	55.1	1.3
170°-180°	14.3	0.3
0°-90°	3523.0	81.5
0°-180°	4322.9	100.0

Coefficient of Utilization



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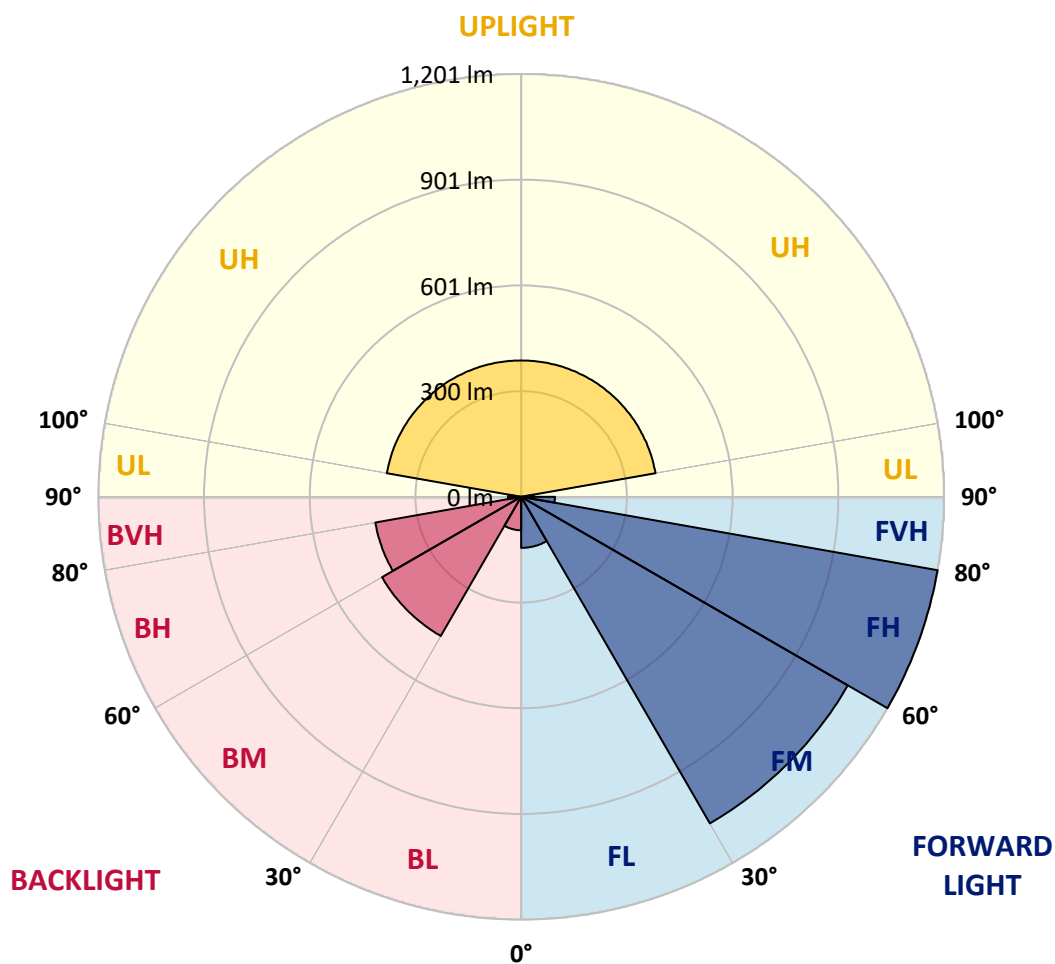
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	145.1	3.4			
FM	(30°-60°)	1071.2	24.8			
FH	(60°-80°)	1201.1	27.8			G1/1800
FVH	(80°-90°)	95.9	2.2			G1/100
BL	(0°-30°)	94.9	2.2	B0/110		
BM	(30°-60°)	456.6	10.6	B1/1000		
BH	(60°-80°)	420.8	9.7	B1/500		G1/500
BVH	(80°-90°)	37.4	0.9			G1/100
UL	(90°-100°)	36.3	0.8		U2/50	
UH	(100°-180°)	387.3	9.0		U3/500	

BUG Rating: B1-U4-G1

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	219.3	219.3	219.3	219.3	219.3	219.3	219.3	219.3	219.3	219.3	219.3
2.5°	231.3	231.3	230.6	229.9	229.2	228.5	228.5	227.1	225.7	224.3	222.9
5°	243.4	242.7	242.7	242.0	240.5	237.7	237.0	235.6	232.8	229.2	226.4
7.5°	256.1	256.1	256.1	254.0	251.2	249.0	247.6	244.8	240.5	235.6	230.6
10°	271.0	271.7	270.3	268.8	266.0	261.8	261.8	256.1	249.7	243.4	237.0
12.5°	288.6	289.4	289.4	286.5	280.9	277.3	275.9	269.5	261.8	253.3	244.1
15°	307.0	309.9	308.5	307.0	300.7	295.7	294.3	284.4	275.9	264.6	253.3
17.5°	336.0	334.6	331.8	328.3	324.7	317.7	316.2	305.6	292.9	278.7	263.9
20°	362.9	362.9	360.1	357.3	353.0	343.1	344.5	330.4	313.4	296.4	276.6
22.5°	392.6	393.4	391.2	388.4	384.9	377.1	375.0	360.1	338.2	315.5	292.2
25°	422.4	423.8	425.2	425.2	420.2	411.0	409.6	390.5	367.9	338.2	309.9
27.5°	457.7	461.3	459.9	461.3	459.1	448.5	448.5	428.7	403.3	366.5	329.7
30°	491.0	495.2	497.4	503.0	503.0	496.6	491.7	473.3	442.9	399.7	355.2
32.5°	534.8	534.8	539.1	551.1	557.5	548.3	551.1	530.6	490.3	439.3	384.2
35°	579.4	579.4	587.2	603.5	609.8	612.0	612.0	586.5	546.2	485.3	419.5
37.5°	626.1	627.5	642.4	664.3	682.7	680.6	683.4	662.9	615.5	539.8	460.6
40°	672.8	677.0	700.4	725.9	757.0	766.9	762.7	749.9	690.5	604.2	506.5
42.5°	723.7	731.5	757.7	797.3	830.6	857.5	858.2	837.6	778.9	679.2	561.7
45°	776.8	788.8	816.4	868.1	921.8	953.7	953.0	955.1	896.4	772.6	632.5
47.5°	837.6	845.4	884.3	947.3	1019.5	1083.1	1082.4	1080.3	1004.6	858.9	688.4
50°	898.5	902.7	955.8	1047.1	1144.0	1206.2	1214.0	1221.8	1119.2	967.1	757.0
52.5°	961.5	964.3	1030.1	1139.7	1278.4	1370.4	1360.5	1364.0	1286.2	1107.9	865.9
55°	1022.3	1023.0	1105.8	1260.0	1427.7	1522.5	1537.3	1553.6	1422.7	1184.3	898.5
57.5°	1074.6	1080.3	1190.7	1380.3	1580.5	1710.0	1702.9	1682.4	1498.4	1214.7	903.4
60°	1119.9	1133.4	1274.9	1492.1	1697.2	1776.5	1784.2	1714.9	1522.5	1227.5	897.8
62.5°	1153.2	1175.1	1348.4	1577.0	1765.1	1814.0	1809.0	1729.1	1562.8	1277.7	932.4
65°	1174.4	1203.4	1378.2	1613.7	1767.3	1817.5	1818.9	1760.9	1581.2	1269.2	907.7
67.5°	1176.5	1217.6	1369.0	1588.3	1734.0	1747.5	1739.7	1654.1	1496.3	1191.4	836.9
70°	1160.3	1190.7	1323.7	1492.1	1594.6	1586.9	1581.9	1492.8	1343.5	1076.8	745.7
72.5°	1096.6	1118.5	1209.8	1327.9	1373.9	1369.7	1349.1	1281.2	1161.0	921.8	631.1
75°	969.9	984.8	1025.1	1089.5	1132.0	1117.1	1104.4	1038.6	938.8	752.7	500.9
77.5°	798.0	781.8	802.3	827.7	849.0	853.9	851.1	783.9	711.7	566.7	381.3
80°	558.9	553.9	551.8	563.1	582.2	575.2	563.9	537.7	481.1	386.3	267.4
82.5°	331.8	326.1	324.0	329.7	319.8	321.2	321.9	295.0	280.2	235.6	153.5
85°	146.4	146.4	142.9	142.9	142.2	142.9	146.4	137.2	128.1	106.8	73.6
87.5°	21.9	19.8	27.6	25.5	29.7	34.0	31.1	29.7	24.8	19.1	14.9
90°	36.0	36.0	36.0	34.0	29.0	26.2	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	30.2	30.0	30.0	34.0	37.0	39.0
97.5°	42.0	42.0	40.0	37.0	35.0	33.2	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	51.8	52.0	54.0	53.0	49.0	48.0
107.5°	72.0	72.0	70.0	67.0	66.0	67.6	68.0	68.0	66.0	60.0	59.0
110°	86.0	86.0	89.0	85.0	86.0	86.8	87.0	84.0	84.0	78.0	74.0

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

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
112.5°	101.0	102.0	108.0	107.0	110.0	107.2	107.0	102.0	105.0	100.0	95.0
115°	121.0	122.0	128.0	128.0	129.0	124.4	124.0	121.0	125.0	123.0	116.0
117.5°	140.0	141.0	144.0	141.0	141.0	136.4	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	157.6	158.0	159.0	162.0	155.0	153.0
125°	169.0	169.0	172.0	163.0	165.0	167.6	168.0	167.0	168.0	163.0	160.0
127.5°	177.0	177.0	181.0	171.0	176.0	177.8	178.0	176.0	175.0	173.0	166.0
130°	187.0	188.0	191.0	179.0	186.0	186.2	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	201.2	201.0	196.0	201.0	199.0	185.0
137.5°	221.0	219.0	213.0	197.0	205.0	207.8	208.0	203.0	210.0	204.0	191.0
140°	229.0	226.0	216.0	200.0	207.0	212.4	213.0	212.0	217.0	209.0	195.0
142.5°	235.0	231.0	218.0	201.0	208.0	216.8	218.0	220.0	223.0	211.0	198.0
145°	235.0	230.0	218.0	202.0	211.0	221.4	223.0	230.0	227.0	211.0	201.0
147.5°	230.0	227.0	219.0	207.0	216.0	227.2	229.0	239.0	229.0	212.0	204.0
150°	224.0	221.0	220.0	214.0	222.0	233.4	235.0	242.0	232.0	214.0	210.0
152.5°	216.0	214.0	221.0	220.0	230.0	239.6	241.0	242.0	235.0	219.0	215.0
155°	208.0	207.0	219.0	224.0	237.0	242.2	243.0	238.0	234.0	224.0	220.0
157.5°	203.0	203.0	216.0	224.0	234.0	234.4	235.0	228.0	229.0	226.0	222.0
160°	199.0	198.0	210.0	213.0	219.0	218.4	219.0	215.0	219.0	221.0	218.0
162.5°	185.0	184.0	193.0	193.0	198.0	197.4	198.0	196.0	200.0	204.0	207.0
165°	169.0	167.0	173.0	173.0	176.0	176.4	177.0	176.0	181.0	185.0	190.0
167.5°	154.0	152.0	156.0	155.0	159.0	158.6	159.0	160.0	165.0	168.0	172.0
170°	142.0	141.0	145.0	144.0	147.0	146.8	147.0	148.0	152.0	155.0	159.0
172.5°	137.0	135.0	139.0	138.0	141.0	140.8	141.0	141.0	145.0	146.0	149.0
175°	136.0	134.0	137.0	137.0	139.0	138.8	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°	219.3	219.3	219.3	219.3	219.3	219.3	219.3	219.3	219.3	219.3	219.3
2.5°	222.1	221.4	219.3	217.9	215.8	214.4	212.9	212.2	212.2	211.5	212.2
5°	225.0	223.6	220.0	217.2	214.4	212.2	210.1	208.0	206.6	205.9	205.9
7.5°	227.8	225.7	220.7	216.5	212.2	208.7	205.9	204.5	202.3	201.6	200.9
10°	232.8	229.9	222.9	216.5	211.5	206.6	203.0	200.9	199.5	198.8	198.8
12.5°	239.8	234.9	226.4	218.6	211.5	205.9	201.6	198.8	197.4	196.0	196.7
15°	246.9	241.2	230.6	220.0	212.2	206.6	201.6	198.8	196.7	196.0	195.3
17.5°	256.1	249.7	237.0	225.0	215.1	208.0	203.0	200.2	198.1	197.4	197.4
20°	268.1	259.6	243.4	229.9	219.3	211.5	205.9	203.0	200.9	200.9	200.9
22.5°	280.2	269.5	250.4	235.6	224.3	215.8	210.8	208.0	205.9	205.2	205.9
25°	294.3	282.3	260.3	242.7	230.6	222.9	217.9	214.4	212.2	212.2	212.2
27.5°	313.4	299.3	271.0	253.3	239.1	230.6	225.0	222.9	221.4	220.7	220.0
30°	334.6	316.2	286.5	263.9	249.7	240.5	235.6	233.5	231.3	229.9	229.2
32.5°	360.1	338.9	301.4	278.0	261.8	252.6	247.6	244.8	242.7	242.0	242.0
35°	391.9	365.8	322.6	295.0	276.6	266.7	261.8	258.9	256.8	256.1	256.8
37.5°	423.8	393.4	345.2	313.4	294.3	282.3	277.3	273.8	272.4	271.0	271.7
40°	462.7	425.2	371.4	336.0	313.4	303.5	295.7	291.5	289.4	287.2	285.8
42.5°	510.1	467.6	404.0	360.1	336.0	322.6	314.8	309.9	305.6	304.2	302.1
45°	570.2	518.6	446.4	390.5	361.5	344.5	335.3	329.0	322.6	321.2	319.1
47.5°	619.7	563.9	481.8	425.9	392.6	370.0	357.3	348.1	340.3	338.9	336.8
50°	674.9	612.0	515.0	455.6	418.1	399.0	382.7	370.0	361.5	357.3	358.7
52.5°	769.0	689.8	574.5	496.6	449.2	424.5	411.7	394.8	381.3	375.0	376.4
55°	789.5	714.5	606.3	536.3	489.6	460.6	437.9	420.9	404.0	392.6	391.9
57.5°	788.8	711.7	604.2	541.9	509.4	490.3	470.5	442.9	422.4	407.5	406.8
60°	779.6	701.1	593.6	532.0	508.7	503.0	492.4	471.9	438.6	422.4	418.8
62.5°	802.3	720.2	602.1	530.6	501.6	498.8	495.9	483.2	453.5	430.8	427.3
65°	778.2	694.7	589.3	528.5	500.9	495.2	495.9	479.0	462.0	433.0	429.4
67.5°	708.2	636.7	539.1	486.7	473.3	474.7	479.7	471.9	452.8	428.7	425.9
70°	630.4	564.6	478.3	431.6	421.7	429.4	442.9	443.6	430.8	411.7	412.5
72.5°	530.6	474.7	405.4	367.9	364.3	370.7	381.3	394.1	390.5	384.9	385.6
75°	430.1	384.9	321.9	297.1	296.4	301.4	315.5	325.4	332.5	334.6	339.6
77.5°	319.1	292.9	244.8	224.3	222.1	228.5	244.1	252.6	262.5	270.3	277.3
80°	223.6	199.5	168.4	152.8	155.6	159.9	169.8	180.4	187.5	193.8	193.8
82.5°	130.9	118.1	100.5	93.4	94.8	101.2	103.3	112.5	113.2	117.4	120.3
85°	61.5	53.1	48.1	47.4	47.4	48.1	52.4	53.1	53.8	55.2	60.8
87.5°	12.7	12.7	12.7	12.7	12.7	14.9	15.6	17.0	16.3	17.0	16.3
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-CG-MS/DIM-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)