

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: P198238

Luminaire Tested: **TT-C1-LED-E1-DL-CG-LWR-LW-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198238
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-C1-LED-E1-DL-CG-LWR-LW-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
DRIVE LANE DISTRIBUTION WITH CLEAR GLASS LENS AND LumaWatt WIRELESS SENSOR
Light Source: (160) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3595.5 lumens
Efficiency: N/A
Efficacy: 70.6 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): 50.9
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



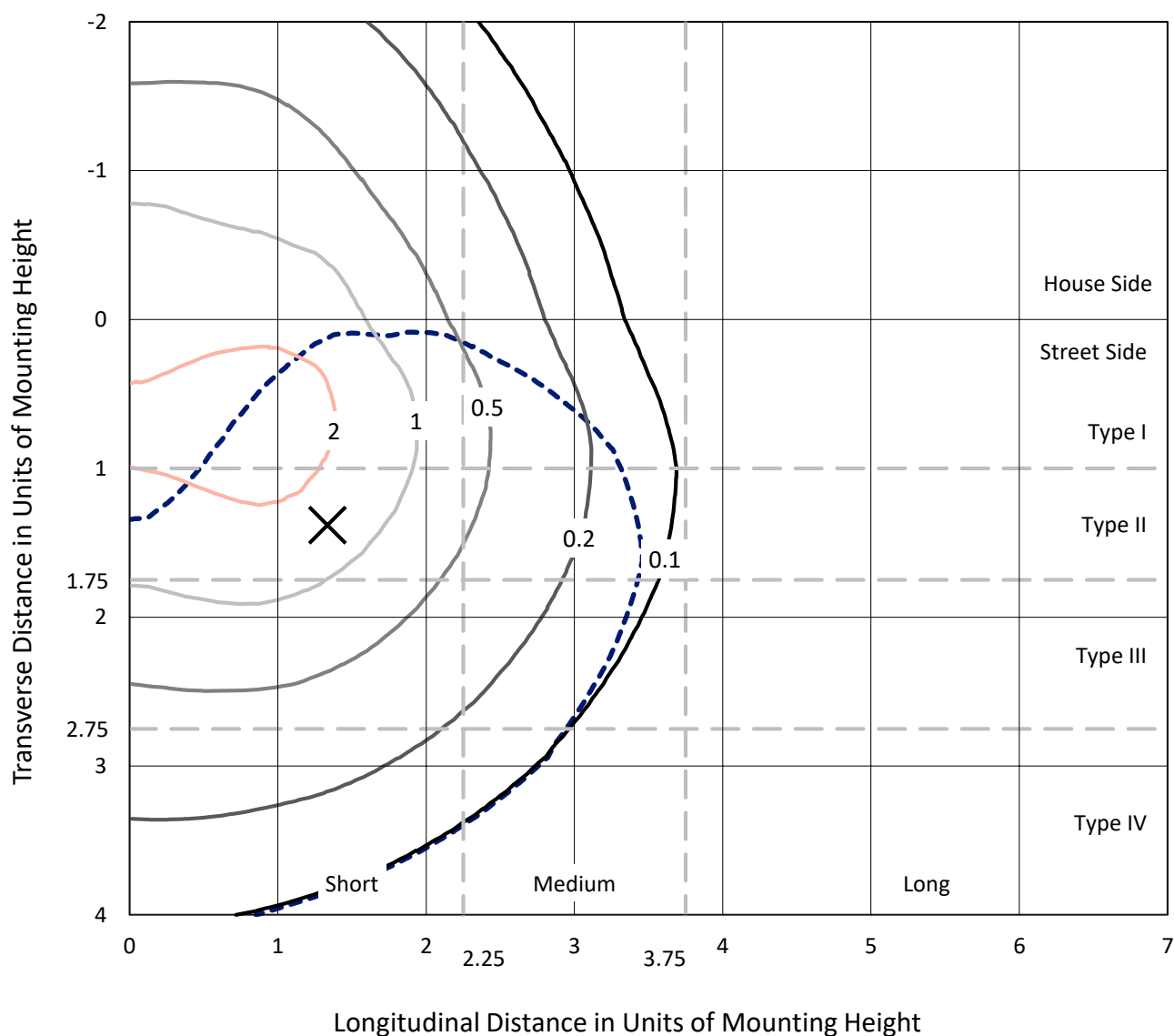
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

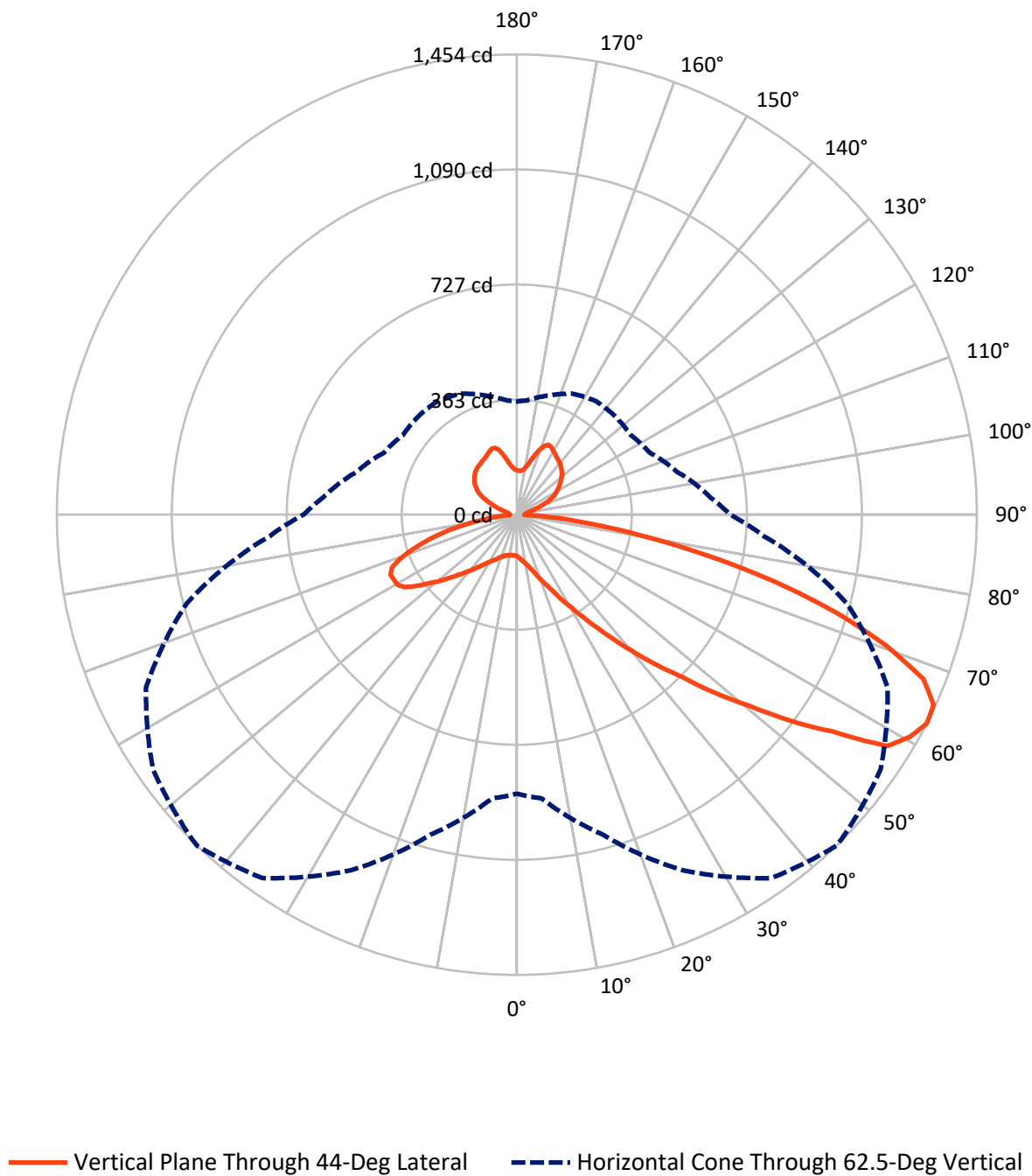


Based on 10 foot mounting height. Maximum calculated value = 2.6 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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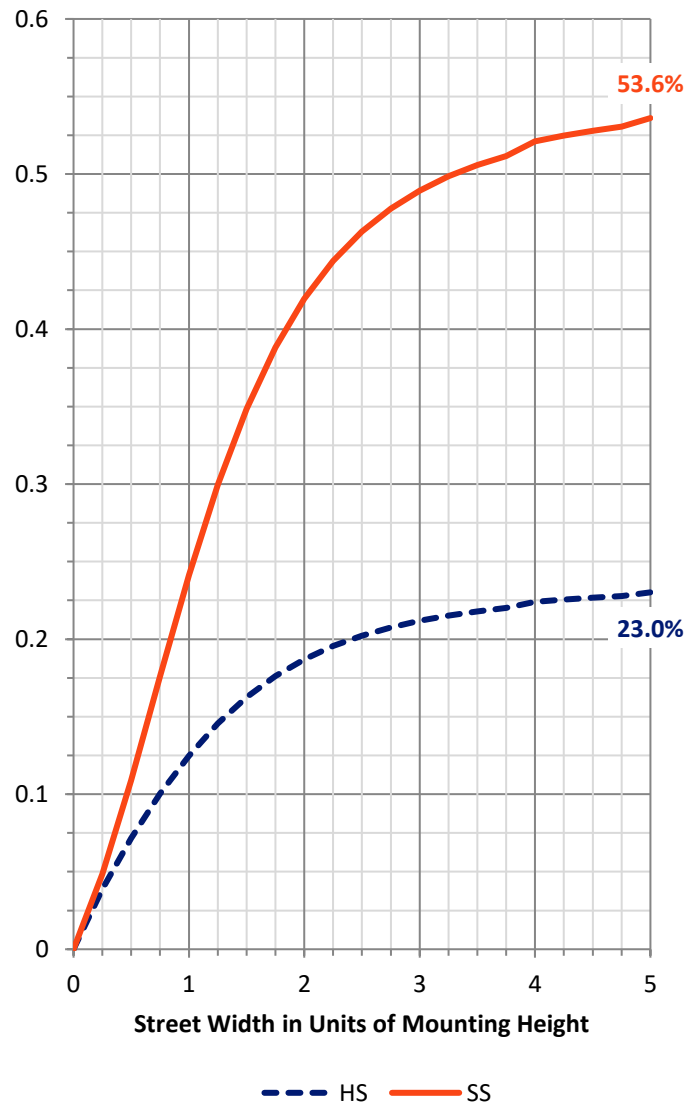
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	840.2	387.3	1227.5
	% Fixture	23.4	10.8	34.1
Street Side	Lumens	1955.3	412.6	2368.0
	% Fixture	54.4	11.5	65.9
Total	Lumens	2795.5	800.0	3595.5
	% Fixture	77.8	22.2	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	13.2	0.4
10°-20°	45.5	1.3
20°-30°	98.3	2.7
30°-40°	194.1	5.4
40°-50°	367.0	10.2
50°-60°	630.7	17.5
60°-70°	791.4	22.0
70°-80°	540.5	15.0
80°-90°	114.8	3.2
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	2.9
160°-170°	55.1	1.5
170°-180°	14.3	0.4
0°-90°	2795.5	77.8
0°-180°	3595.5	100.0

Coefficient of Utilization



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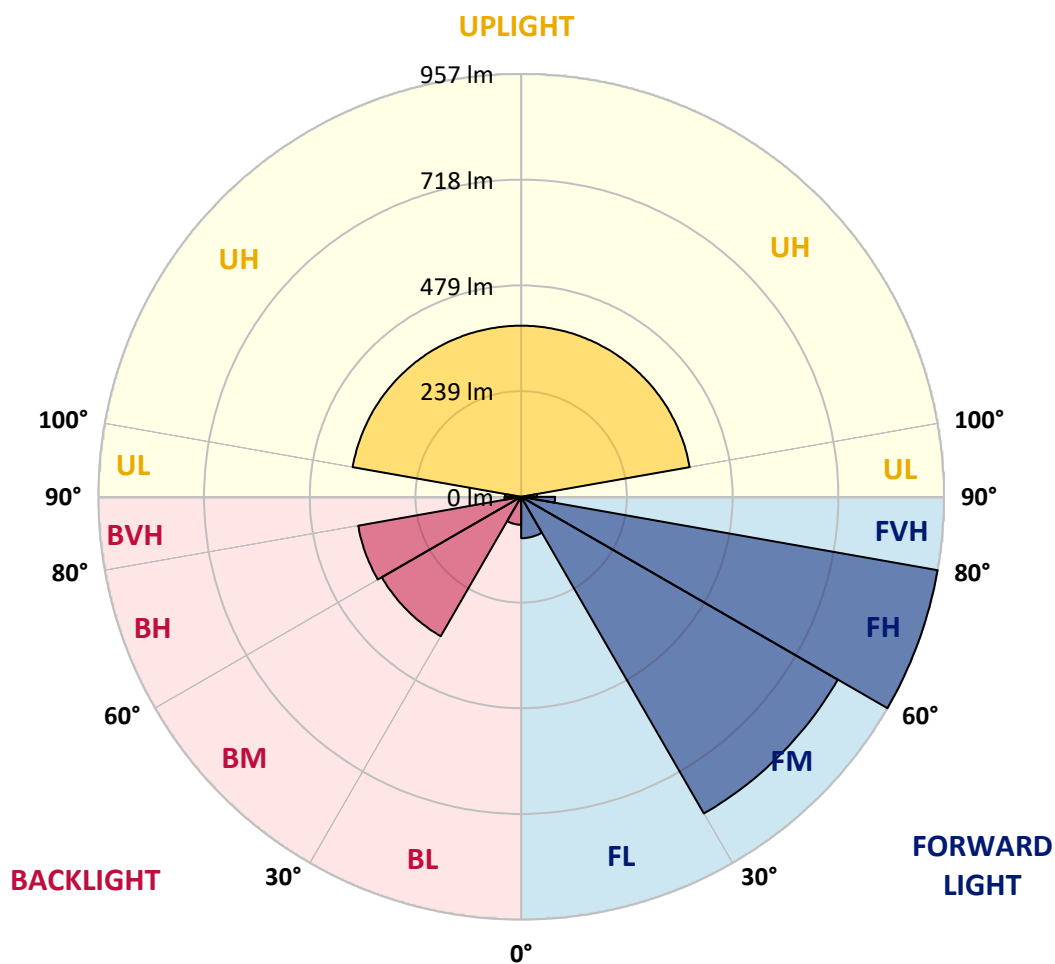
CATALOG NUMBER: TT-C1-LED-E1-DL-CG-LWR-LW-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	93.7	2.6			
FM	(30°-60°)	827.6	23.0			
FH	(60°-80°)	957.2	26.6			G1/1800
FVH	(80°-90°)	76.9	2.1			G1/100
BL	(0°-30°)	63.3	1.8	B0/110		
BM	(30°-60°)	364.2	10.1	B1/1000		
BH	(60°-80°)	374.7	10.4	B1/500		G1/500
BVH	(80°-90°)	38.0	1.1			G1/100
UL	(90°-100°)	36.3	1.0		U2/50	
UH	(100°-180°)	387.3	10.8		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°	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0
2.5°	137.5	137.5	137.5	137.5	136.3	136.3	136.3	135.7	135.2	134.0	133.4
5°	144.6	145.1	144.6	144.0	142.8	142.2	141.6	141.0	139.3	137.5	135.7
7.5°	153.4	152.8	152.8	152.2	150.4	149.3	149.3	146.9	144.6	142.2	139.3
10°	162.8	163.4	163.4	161.6	160.4	158.1	158.1	154.5	151.6	148.1	144.6
12.5°	174.5	173.9	175.1	173.9	172.2	168.1	168.1	165.1	159.8	155.1	150.4
15°	189.2	189.2	189.8	187.5	185.7	181.6	182.8	175.1	170.4	165.1	157.5
17.5°	208.0	208.0	206.3	205.1	202.1	199.8	197.4	191.0	183.9	175.1	166.3
20°	229.2	229.8	226.8	226.8	223.3	220.4	218.6	211.0	200.4	188.6	177.5
22.5°	255.0	253.9	251.5	249.2	247.4	242.1	243.9	233.9	219.8	203.9	189.2
25°	275.6	277.4	277.4	279.1	276.2	270.3	272.1	259.7	243.3	224.5	203.9
27.5°	300.9	304.4	307.3	310.9	309.7	305.6	304.4	293.2	272.1	249.7	222.1
30°	328.5	333.8	336.1	342.6	344.4	340.8	340.2	329.1	308.5	275.0	245.0
32.5°	364.3	363.7	370.8	382.0	389.0	387.2	386.7	374.3	346.7	311.4	270.3
35°	399.0	400.2	408.4	425.4	436.6	440.1	439.5	426.6	399.0	354.9	303.8
37.5°	436.6	438.4	454.2	474.8	493.0	501.8	501.8	496.0	458.9	399.6	340.8
40°	473.6	481.9	500.1	526.5	557.1	571.8	571.2	561.8	527.7	461.3	379.6
42.5°	518.3	526.5	546.5	584.1	622.3	650.5	650.5	647.6	604.7	533.6	436.0
45°	562.4	569.4	594.1	641.7	697.5	730.4	734.5	745.1	715.1	615.2	501.2
47.5°	609.4	615.2	647.0	706.9	776.8	840.9	845.0	853.2	805.1	695.2	552.4
50°	656.4	658.7	705.2	785.7	885.0	946.1	959.6	976.1	909.1	791.5	610.0
52.5°	710.4	711.6	765.7	868.5	992.5	1081.8	1084.2	1095.9	1058.9	909.7	717.5
55°	758.0	759.8	829.1	961.4	1123.0	1208.8	1232.3	1266.3	1175.8	989.0	749.2
57.5°	802.1	809.2	904.4	1073.6	1249.3	1379.2	1375.1	1373.3	1244.6	1020.7	755.7
60°	845.0	857.9	979.6	1164.7	1342.1	1426.2	1430.9	1397.4	1262.8	1033.6	749.2
62.5°	882.0	899.7	1045.4	1239.3	1401.5	1453.8	1450.9	1403.3	1292.8	1078.9	784.5
65°	908.5	932.6	1075.4	1271.0	1396.8	1447.3	1451.4	1426.2	1318.6	1081.2	773.9
67.5°	922.0	956.1	1074.8	1249.9	1361.5	1385.6	1387.4	1341.0	1239.3	1023.7	708.1
70°	925.5	947.8	1046.0	1172.3	1239.3	1237.0	1234.0	1199.4	1101.8	913.2	629.4
72.5°	887.3	907.3	954.9	1032.5	1059.5	1053.6	1042.5	1003.7	937.9	785.1	536.5
75°	803.3	810.3	812.1	833.8	835.0	836.8	823.9	798.6	752.2	634.6	428.4
77.5°	647.0	657.6	634.6	610.0	609.4	607.0	604.1	572.4	550.0	476.0	318.5
80°	471.3	466.6	447.8	419.6	400.8	394.9	391.4	382.5	369.0	326.1	221.5
82.5°	284.4	289.7	270.3	250.3	240.3	230.4	235.6	226.2	219.2	199.2	135.7
85°	127.5	127.5	123.4	118.1	109.9	110.5	111.6	108.1	103.4	93.4	65.2
87.5°	24.7	22.3	24.1	24.7	22.9	23.5	25.3	26.4	27.6	25.9	19.4
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-C1-LED-E1-DL-CG-LWR-LW-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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CATALOG NUMBER: TT-C1-LED-E1-DL-CG-LWR-LW-UPL

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0
2.5°	133.4	132.8	132.2	131.0	129.9	129.3	128.7	128.1	128.1	127.5	127.5
5°	135.2	134.6	133.4	132.2	131.0	129.3	128.1	127.5	126.3	126.3	126.3
7.5°	138.1	136.9	134.6	132.8	131.0	129.3	128.1	126.9	126.3	125.2	125.2
10°	142.2	140.4	137.5	134.0	131.6	129.9	128.1	126.9	126.3	125.8	125.8
12.5°	148.1	145.1	140.4	136.9	133.4	131.0	129.3	128.1	127.5	126.9	126.9
15°	154.0	151.0	145.1	139.9	135.7	133.4	131.0	130.5	129.3	129.3	129.3
17.5°	162.2	157.5	150.4	144.6	139.9	136.3	134.6	132.8	132.8	133.4	133.4
20°	171.6	166.3	157.5	149.8	144.6	141.0	139.3	138.1	137.5	138.1	138.7
22.5°	182.8	175.1	163.9	156.9	151.0	146.9	145.1	144.0	143.4	144.6	144.0
25°	193.9	186.3	173.4	163.9	156.9	154.0	152.2	151.6	150.4	151.6	151.0
27.5°	212.7	202.1	184.5	172.2	165.7	162.2	159.8	158.7	158.7	158.7	158.1
30°	229.2	216.8	196.3	183.9	174.5	170.4	168.1	167.5	167.5	168.1	167.5
32.5°	252.1	236.8	212.7	196.3	187.5	181.0	178.6	178.1	178.1	177.5	178.1
35°	281.5	263.3	231.5	212.1	200.4	194.5	192.2	191.6	189.8	189.8	189.8
37.5°	313.2	289.1	253.9	232.7	218.0	210.4	206.8	204.5	203.3	202.1	202.1
40°	347.9	320.3	280.9	253.3	238.0	228.0	221.5	218.0	216.2	214.5	213.3
42.5°	393.1	362.6	312.0	278.5	259.1	248.0	238.6	235.1	230.4	228.6	225.1
45°	452.5	413.7	350.8	313.2	285.0	269.1	259.7	252.1	246.2	243.3	240.3
47.5°	498.9	453.1	388.4	343.2	315.6	295.0	282.1	269.7	262.7	257.4	256.2
50°	545.9	497.7	428.4	374.3	343.8	325.5	308.5	293.2	280.3	274.4	275.6
52.5°	637.0	578.8	481.9	416.6	373.7	353.2	335.5	316.7	302.0	292.6	293.2
55°	662.8	603.5	516.5	457.8	416.6	389.6	366.1	345.5	324.4	310.9	311.4
57.5°	661.1	602.3	519.5	468.9	441.9	422.5	400.8	372.6	347.9	330.2	327.9
60°	652.3	592.9	514.2	463.1	443.1	438.4	427.2	401.4	367.9	347.9	343.8
62.5°	674.0	615.2	523.6	463.1	439.0	439.5	437.2	421.3	389.6	362.0	357.3
65°	664.6	601.1	517.7	467.2	446.6	441.9	440.7	425.4	403.7	372.6	368.4
67.5°	608.8	553.5	477.7	433.1	424.3	428.4	434.3	424.3	402.5	379.0	373.7
70°	534.2	487.1	423.1	384.3	380.2	388.4	401.9	403.1	390.8	372.6	373.1
72.5°	450.7	413.1	359.0	332.6	327.9	335.5	352.6	360.8	361.4	354.9	354.3
75°	362.0	327.9	289.1	266.8	268.0	279.7	292.6	306.7	311.4	315.6	319.1
77.5°	269.7	251.5	218.6	203.9	206.8	219.8	228.0	236.8	246.8	251.5	255.0
80°	188.6	172.8	151.0	142.2	145.7	153.4	160.4	168.1	181.0	181.6	188.6
82.5°	118.1	107.5	96.4	93.4	94.0	97.0	105.2	109.9	115.8	117.5	116.4
85°	57.6	55.2	51.7	49.9	50.5	53.5	58.8	62.3	65.8	65.2	61.7
87.5°	18.2	18.8	19.4	20.0	20.0	21.7	23.5	23.5	24.7	24.1	24.1
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-C1-LED-E1-DL-CG-LWR-LW-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)