

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: P198303

Luminaire Tested: **TT-C2-LED-E1-DL-CG-LWR-LW-8030-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198303
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-LWR-LW-8030-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
DRIVE LANE DISTRIBUTION WITH CLEAR GLASS LENS AND LumaWatt WIRELESS SENSOR
Light Source: (160) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3338.6 lumens
Efficiency: N/A
Efficacy: 56.8 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

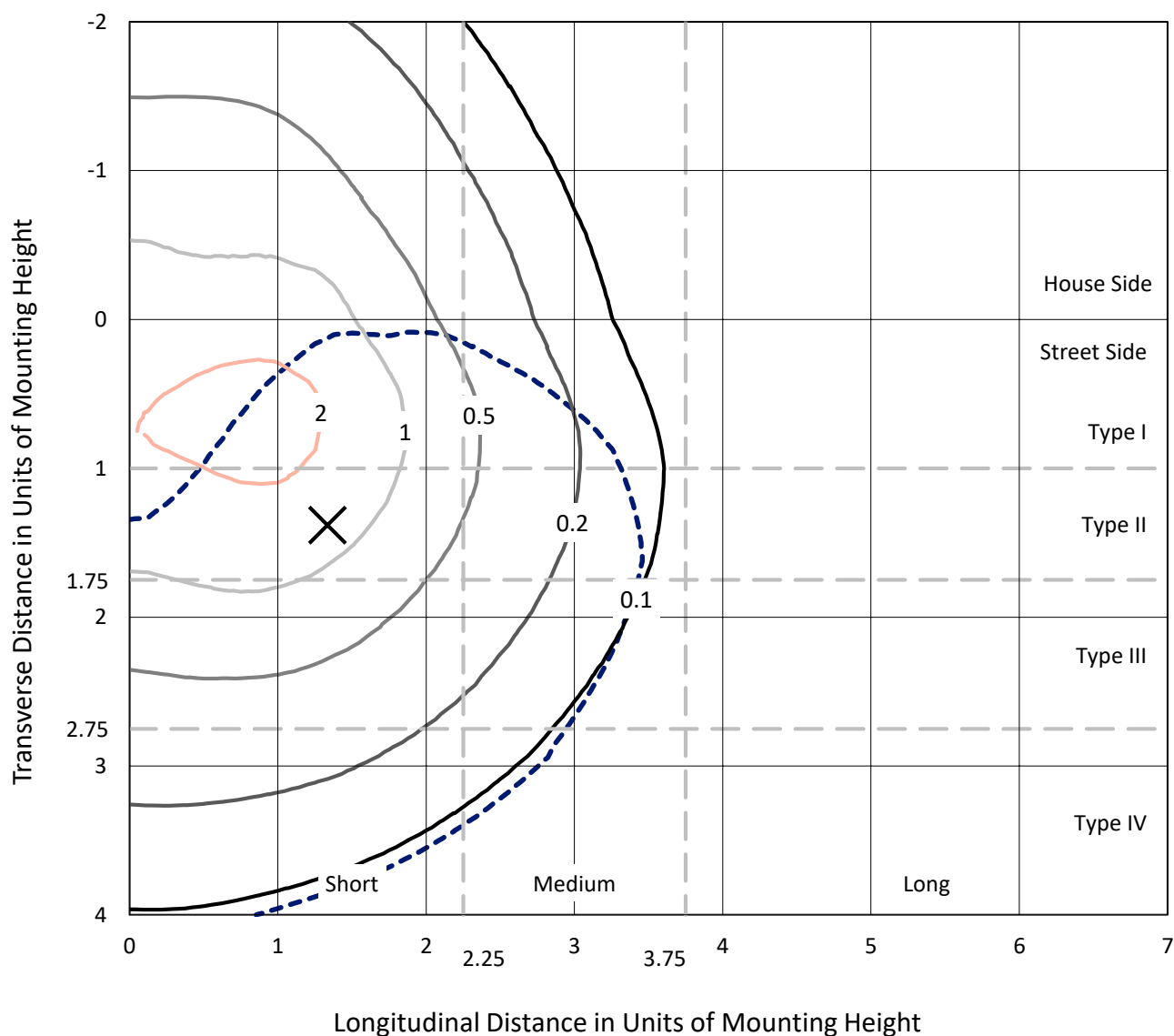


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

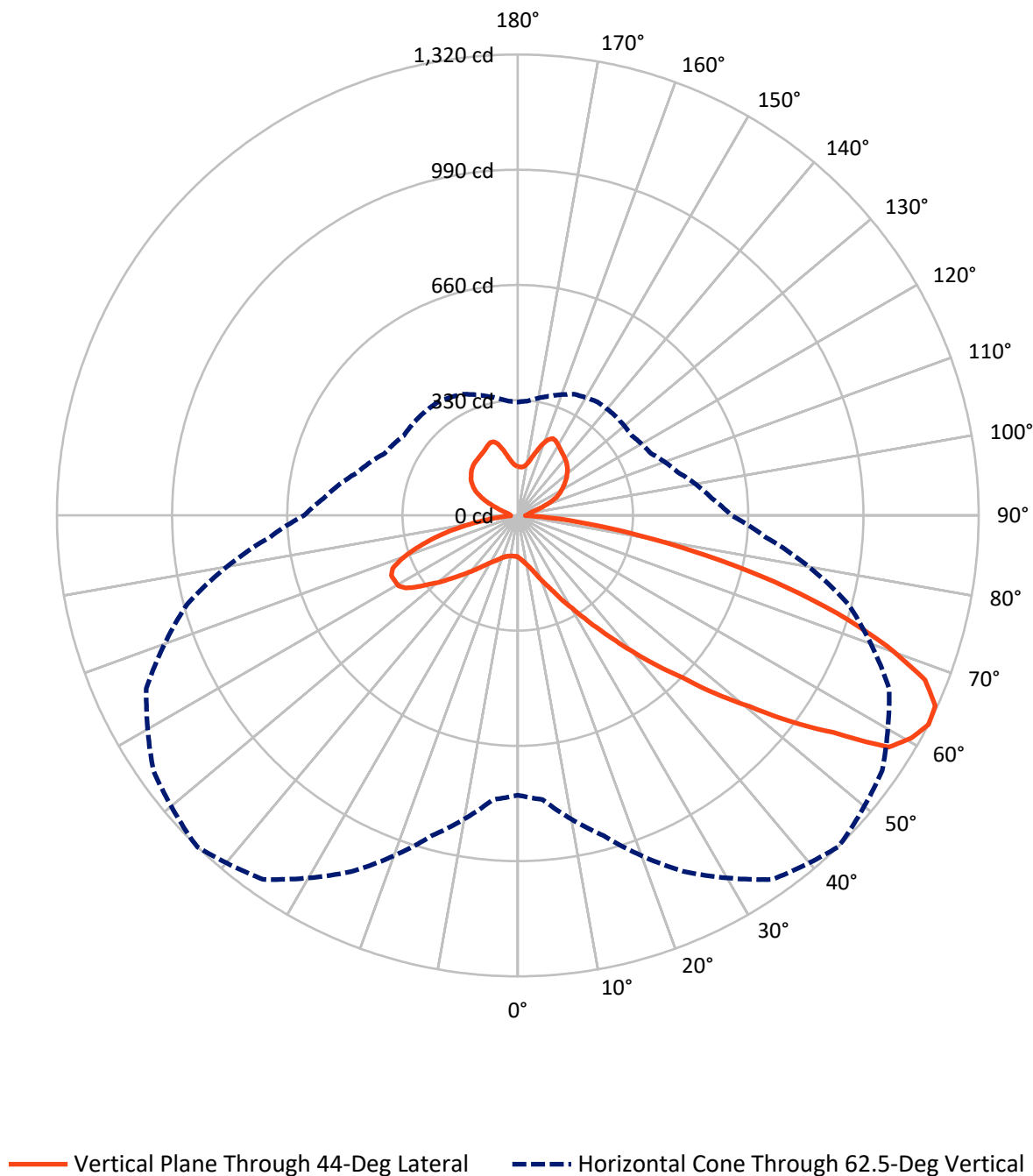


Based on 10 foot mounting height. Maximum calculated value = 2.4 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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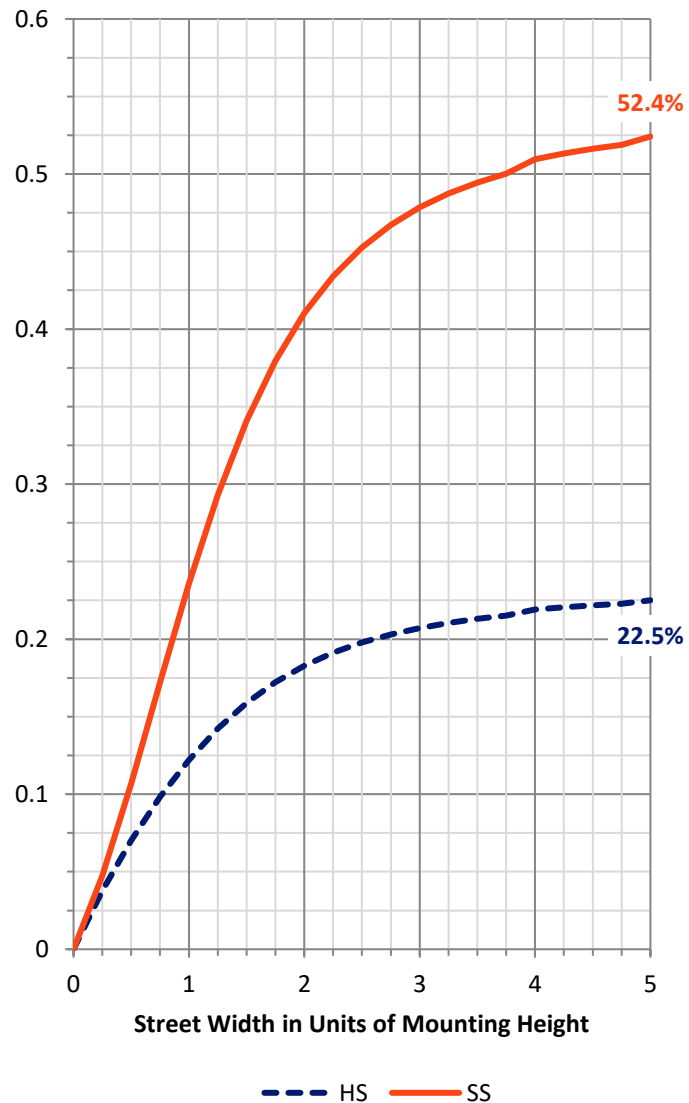
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	763.1	387.3	1150.4
	% Fixture	22.9	11.6	34.5
Street Side	Lumens	1775.6	412.6	2188.2
	% Fixture	53.2	12.4	65.5
Total	Lumens	2538.7	800.0	3338.6
	% Fixture	76.0	24.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	12.0	0.4
10°-20°	41.3	1.2
20°-30°	89.3	2.7
30°-40°	176.2	5.3
40°-50°	333.2	10.0
50°-60°	572.7	17.2
60°-70°	718.6	21.5
70°-80°	490.7	14.7
80°-90°	104.7	3.1
90°-100°	36.3	1.1
100°-110°	55.2	1.7
110°-120°	110.8	3.3
120°-130°	144.2	4.3
130°-140°	148.0	4.4
140°-150°	133.4	4.0
150°-160°	102.6	3.1
160°-170°	55.1	1.6
170°-180°	14.3	0.4
0°-90°	2538.7	76.0
0°-180°	3338.6	100.0

Coefficient of Utilization



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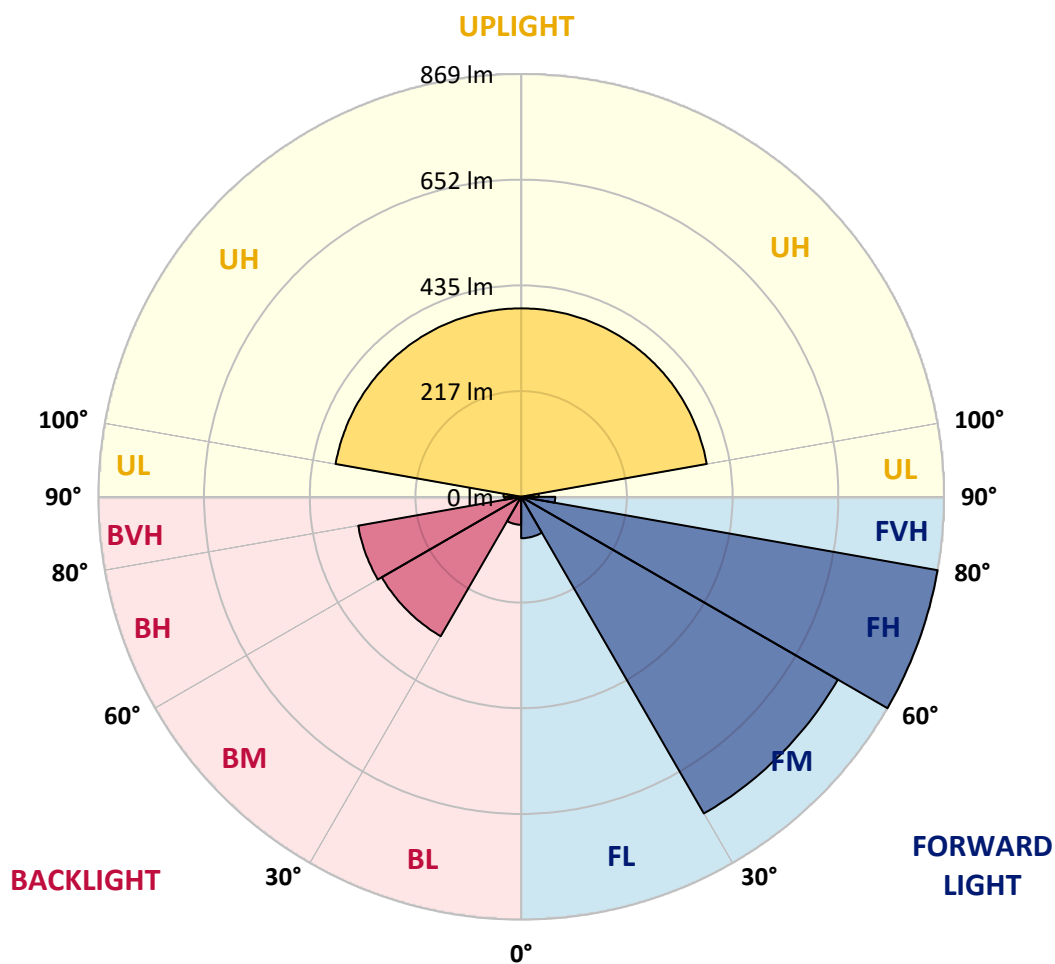
CATALOG NUMBER: TT-C2-LED-E1-DL-CG-LWR-LW-8030-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	85.1	2.5			
FM	(30°-60°)	751.4	22.5			
FH	(60°-80°)	869.1	26.0			G1/1800
FVH	(80°-90°)	70.0	2.1			G1/100
BL	(0°-30°)	57.5	1.7	B0/110		
BM	(30°-60°)	330.7	9.9	B1/1000		
BH	(60°-80°)	340.2	10.2	B1/500		G1/500
BVH	(80°-90°)	34.7	1.0			G1/100
UL	(90°-100°)	36.3	1.1		U2/50	
UH	(100°-180°)	387.3	11.6		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°	119.0	119.0	119.0	119.0	119.0	119.0	119.0	119.0	119.0	119.0	119.0
2.5°	124.9	124.9	124.9	124.9	123.8	123.8	123.8	123.3	122.7	121.7	121.1
5°	131.3	131.8	131.3	130.7	129.7	129.1	128.6	128.1	126.5	124.9	123.3
7.5°	139.3	138.7	138.7	138.2	136.6	135.5	135.5	133.4	131.3	129.1	126.5
10°	147.8	148.3	148.3	146.7	145.7	143.5	143.5	140.3	137.7	134.5	131.3
12.5°	158.5	157.9	159.0	157.9	156.3	152.6	152.6	149.9	145.1	140.9	136.6
15°	171.8	171.8	172.3	170.2	168.6	164.9	165.9	159.0	154.7	149.9	143.0
17.5°	188.9	188.9	187.3	186.2	183.5	181.4	179.3	173.4	167.0	159.0	151.0
20°	208.1	208.6	206.0	206.0	202.8	200.1	198.5	191.5	181.9	171.3	161.1
22.5°	231.6	230.5	228.4	226.2	224.6	219.8	221.4	212.4	199.6	185.1	171.8
25°	250.2	251.8	251.8	253.4	250.8	245.4	247.0	235.8	220.9	203.8	185.1
27.5°	273.2	276.4	279.1	282.3	281.2	277.5	276.4	266.2	247.0	226.8	201.7
30°	298.3	303.1	305.2	311.1	312.7	309.5	308.9	298.8	280.1	249.7	222.5
32.5°	330.8	330.3	336.7	346.8	353.2	351.6	351.1	339.9	314.8	282.8	245.4
35°	362.3	363.4	370.8	386.3	396.4	399.6	399.1	387.4	362.3	322.3	275.8
37.5°	396.4	398.0	412.4	431.1	447.7	455.7	455.7	450.3	416.7	362.8	309.5
40°	430.0	437.5	454.1	478.1	505.8	519.2	518.6	510.1	479.1	418.8	344.7
42.5°	470.6	478.1	496.2	530.4	565.0	590.6	590.6	588.0	549.0	484.5	395.9
45°	510.6	517.0	539.4	582.6	633.3	663.2	666.9	676.6	649.3	558.6	455.1
47.5°	553.3	558.6	587.4	641.9	705.4	763.5	767.3	774.7	731.0	631.2	501.5
50°	596.0	598.1	640.3	713.4	803.5	859.0	871.3	886.2	825.4	718.7	553.8
52.5°	645.1	646.1	695.2	788.6	901.2	982.3	984.4	995.1	961.5	825.9	651.5
55°	688.3	689.9	752.9	872.9	1019.6	1097.5	1118.9	1149.8	1067.7	898.0	680.3
57.5°	728.3	734.7	821.1	974.8	1134.3	1252.3	1248.5	1246.9	1130.1	926.8	686.2
60°	767.3	779.0	889.4	1057.5	1218.6	1294.9	1299.2	1268.8	1146.6	938.5	680.3
62.5°	800.9	816.9	949.2	1125.3	1272.5	1320.0	1317.4	1274.1	1173.8	979.6	712.3
65°	824.9	846.8	976.4	1154.1	1268.3	1314.2	1317.9	1294.9	1197.3	981.7	702.7
67.5°	837.2	868.1	975.9	1134.9	1236.3	1258.1	1259.7	1217.6	1125.3	929.5	642.9
70°	840.4	860.6	949.7	1064.4	1125.3	1123.1	1120.5	1089.0	1000.4	829.2	571.4
72.5°	805.7	823.8	867.0	937.5	962.0	956.7	946.5	911.3	851.6	712.8	487.1
75°	729.4	735.8	737.4	757.1	758.2	759.8	748.0	725.1	683.0	576.2	389.0
77.5°	587.4	597.1	576.2	553.8	553.3	551.2	548.5	519.7	499.4	432.2	289.2
80°	427.9	423.6	406.6	381.0	363.9	358.6	355.4	347.3	335.1	296.1	201.2
82.5°	258.2	263.0	245.4	227.3	218.2	209.2	214.0	205.4	199.0	180.9	123.3
85°	115.8	115.8	112.0	107.2	99.8	100.3	101.4	98.2	93.9	84.8	59.2
87.5°	22.4	20.3	21.9	22.4	20.8	21.3	22.9	24.0	25.1	23.5	17.6
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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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°	119.0	119.0	119.0	119.0	119.0	119.0	119.0	119.0	119.0	119.0	119.0
2.5°	121.1	120.6	120.1	119.0	117.9	117.4	116.8	116.3	116.3	115.8	115.8
5°	122.7	122.2	121.1	120.1	119.0	117.4	116.3	115.8	114.7	114.7	114.7
7.5°	125.4	124.3	122.2	120.6	119.0	117.4	116.3	115.2	114.7	113.6	113.6
10°	129.1	127.5	124.9	121.7	119.5	117.9	116.3	115.2	114.7	114.2	114.2
12.5°	134.5	131.8	127.5	124.3	121.1	119.0	117.4	116.3	115.8	115.2	115.2
15°	139.8	137.1	131.8	127.0	123.3	121.1	119.0	118.5	117.4	117.4	117.4
17.5°	147.3	143.0	136.6	131.3	127.0	123.8	122.2	120.6	120.6	121.1	121.1
20°	155.8	151.0	143.0	136.1	131.3	128.1	126.5	125.4	124.9	125.4	125.9
22.5°	165.9	159.0	148.9	142.5	137.1	133.4	131.8	130.7	130.2	131.3	130.7
25°	176.1	169.1	157.4	148.9	142.5	139.8	138.2	137.7	136.6	137.7	137.1
27.5°	193.1	183.5	167.5	156.3	150.5	147.3	145.1	144.1	144.1	144.1	143.5
30°	208.1	196.9	178.2	167.0	158.5	154.7	152.6	152.1	152.1	152.6	152.1
32.5°	228.9	215.0	193.1	178.2	170.2	164.3	162.2	161.7	161.7	161.1	161.7
35°	255.6	239.0	210.2	192.6	181.9	176.6	174.5	173.9	172.3	172.3	172.3
37.5°	284.4	262.5	230.5	211.3	198.0	191.0	187.8	185.7	184.6	183.5	183.5
40°	315.9	290.8	255.0	230.0	216.1	207.0	201.2	198.0	196.3	194.7	193.7
42.5°	357.0	329.2	283.3	252.9	235.3	225.2	216.6	213.4	209.2	207.6	204.4
45°	410.8	375.6	318.5	284.4	258.8	244.4	235.8	228.9	223.6	220.9	218.2
47.5°	453.0	411.4	352.7	311.6	286.5	267.8	256.1	244.9	238.5	233.7	232.6
50°	495.7	451.9	389.0	339.9	312.1	295.6	280.1	266.2	254.5	249.2	250.2
52.5°	578.4	525.6	437.5	378.3	339.3	320.7	304.7	287.6	274.2	265.7	266.2
55°	601.9	548.0	469.0	415.6	378.3	353.7	332.4	313.7	294.5	282.3	282.8
57.5°	600.3	546.9	471.7	425.8	401.2	383.6	363.9	338.3	315.9	299.9	297.7
60°	592.3	538.4	466.9	420.4	402.3	398.0	387.9	364.4	334.0	315.9	312.1
62.5°	612.0	558.6	475.4	420.4	398.6	399.1	397.0	382.6	353.7	328.7	324.4
65°	603.5	545.8	470.1	424.2	405.5	401.2	400.2	386.3	366.6	338.3	334.5
67.5°	552.8	502.6	433.8	393.2	385.2	389.0	394.3	385.2	365.5	344.1	339.3
70°	485.0	442.3	384.2	348.9	345.2	352.7	365.0	366.0	354.8	338.3	338.8
72.5°	409.2	375.1	326.0	302.0	297.7	304.7	320.1	327.6	328.1	322.3	321.7
75°	328.7	297.7	262.5	242.2	243.3	254.0	265.7	278.5	282.8	286.5	289.7
77.5°	244.9	228.4	198.5	185.1	187.8	199.6	207.0	215.0	224.1	228.4	231.6
80°	171.3	156.9	137.1	129.1	132.3	139.3	145.7	152.6	164.3	164.9	171.3
82.5°	107.2	97.6	87.5	84.8	85.4	88.0	95.5	99.8	105.1	106.7	105.6
85°	52.3	50.2	47.0	45.4	45.9	48.6	53.4	56.6	59.8	59.2	56.0
87.5°	16.5	17.1	17.6	18.1	18.1	19.7	21.3	21.3	22.4	21.9	21.9
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-LWR-LW-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)