

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: P198236

Luminaire Tested: **TT-C1-LED-E1-DL-CG-8030-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198236
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-8030-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
DRIVE LANE DISTRIBUTION WITH CLEAR GLASS LENS
Light Source: (160) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3161.8 lumens
Efficiency: N/A
Efficacy: 62.1 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

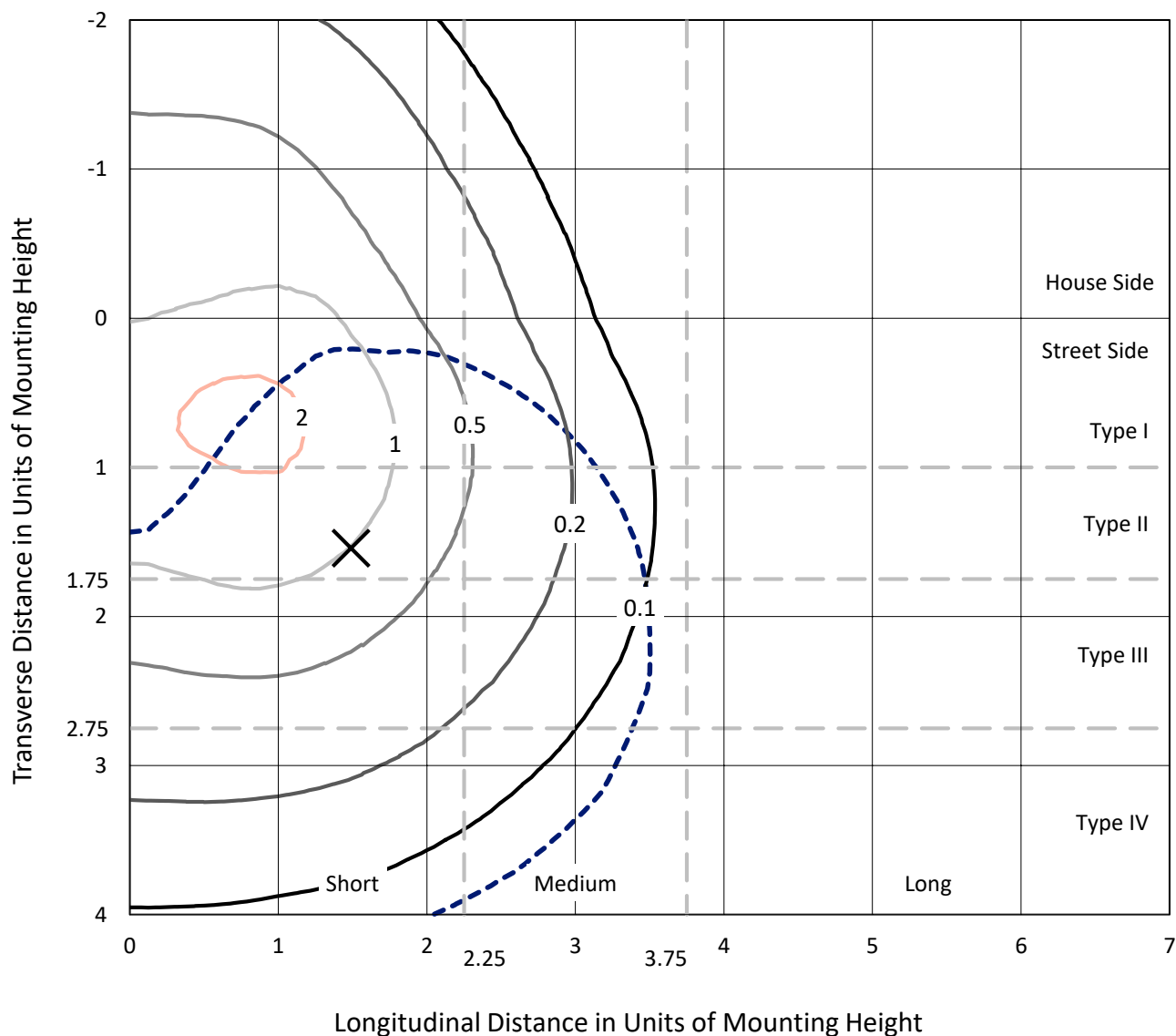


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

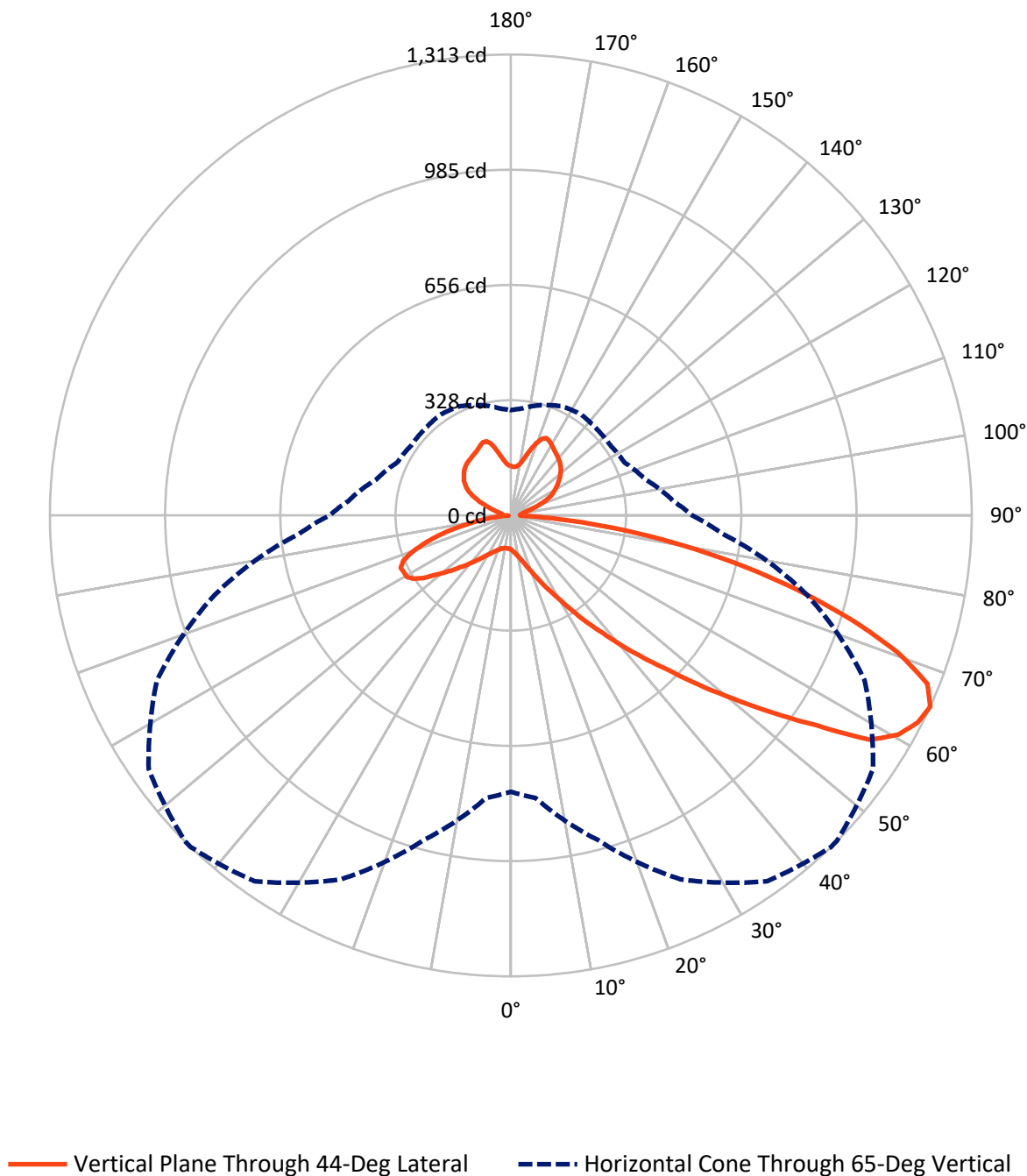


Based on 10 foot mounting height. Maximum calculated value = 2.2 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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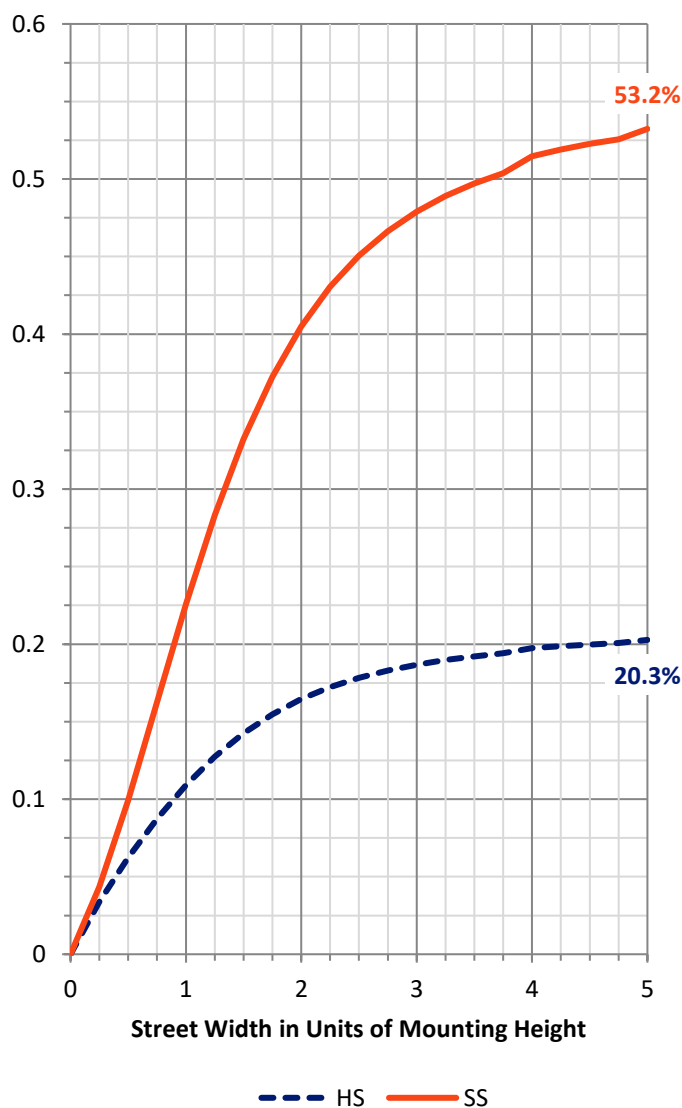
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	648.6	387.3	1035.9
	% Fixture	20.5	12.2	32.8
Street Side	Lumens	1713.2	412.6	2125.9
	% Fixture	54.2	13.1	67.2
Total	Lumens	2361.9	800.0	3161.8
	% Fixture	74.7	25.3	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	9.8	0.3
10°-20°	34.3	1.1
20°-30°	76.9	2.4
30°-40°	157.0	5.0
40°-50°	301.8	9.5
50°-60°	524.3	16.6
60°-70°	671.5	21.2
70°-80°	480.8	15.2
80°-90°	105.4	3.3
90°-100°	36.3	1.1
100°-110°	55.2	1.7
110°-120°	110.8	3.5
120°-130°	144.2	4.6
130°-140°	148.0	4.7
140°-150°	133.4	4.2
150°-160°	102.6	3.2
160°-170°	55.1	1.7
170°-180°	14.3	0.5
0°-90°	2361.9	74.7
0°-180°	3161.8	100.0

Coefficient of Utilization



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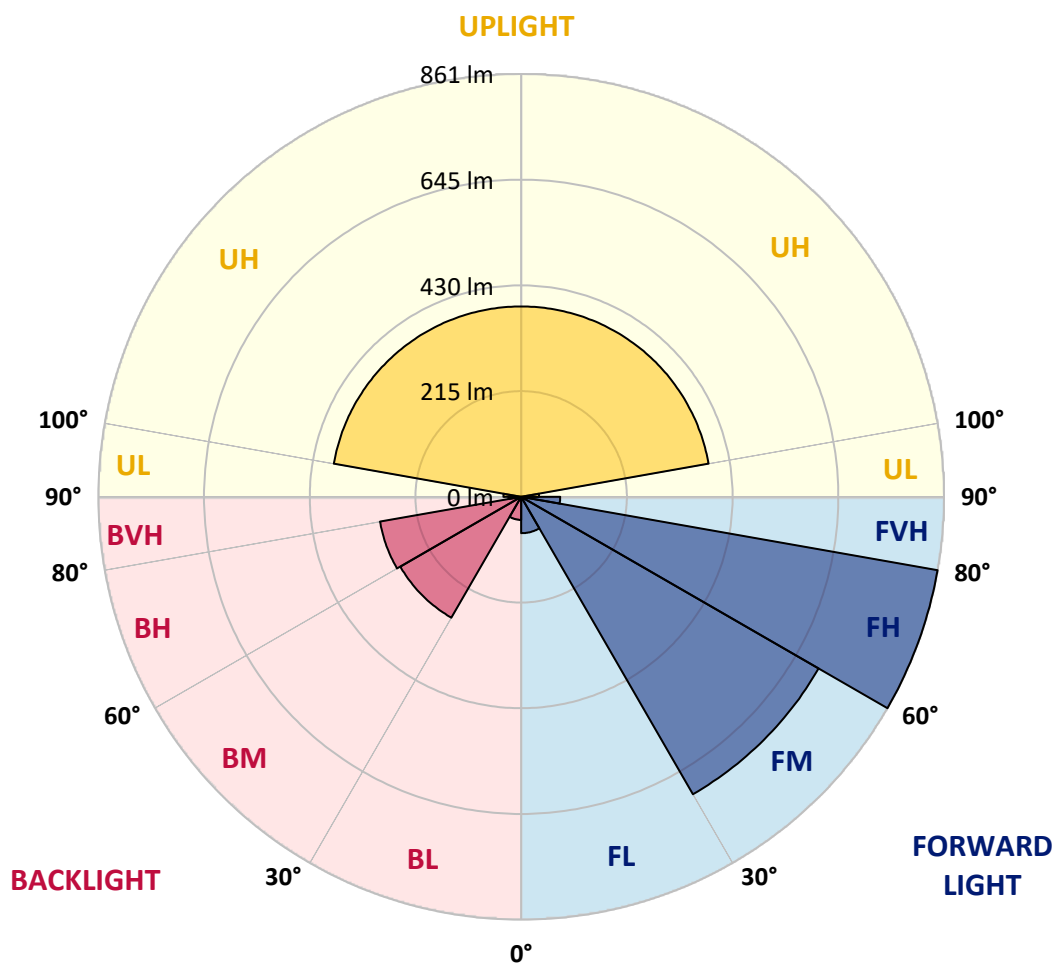
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	74.1	2.3			
FM	(30°-60°)	699.0	22.1			
FH	(60°-80°)	860.6	27.2			G1/1800
FVH	(80°-90°)	79.5	2.5			G1/100
BL	(0°-30°)	47.0	1.5	B0/110		
BM	(30°-60°)	284.0	9.0	B1/1000		
BH	(60°-80°)	291.7	9.2	B1/500		G1/500
BVH	(80°-90°)	25.9	0.8			G1/100
UL	(90°-100°)	36.3	1.1		U2/50	
UH	(100°-180°)	387.3	12.2		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°	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1
2.5°	102.4	102.4	102.4	101.9	101.5	101.0	101.0	100.6	100.2	99.7	98.8
5°	108.6	108.1	108.1	107.2	106.8	105.9	105.9	105.0	103.7	102.4	101.0
7.5°	115.2	115.7	115.2	114.3	113.0	112.1	111.7	109.9	108.1	105.9	103.7
10°	123.2	123.6	123.6	122.8	121.4	119.2	119.2	116.6	113.9	111.2	107.2
12.5°	134.7	134.3	133.8	133.8	131.2	128.5	129.4	125.9	121.4	117.4	112.6
15°	145.4	146.2	147.1	144.9	143.1	140.5	140.0	135.6	130.7	125.0	118.8
17.5°	160.9	161.8	161.3	160.4	158.2	155.1	154.2	148.9	142.3	134.3	125.9
20°	180.8	181.3	179.5	178.6	176.8	172.8	171.5	165.3	156.4	145.4	135.2
22.5°	203.0	201.6	201.2	200.3	199.9	195.4	195.0	185.7	172.8	160.4	145.8
25°	222.0	223.4	224.2	225.6	225.1	220.7	220.7	210.1	194.6	177.7	159.1
27.5°	244.2	246.4	249.1	252.2	251.7	248.6	250.4	240.2	219.4	199.0	175.1
30°	268.1	271.7	276.1	283.6	285.8	282.7	282.7	269.9	249.5	222.0	192.8
32.5°	300.0	301.8	305.8	317.8	324.4	324.4	324.0	309.8	285.0	250.4	214.1
35°	333.3	333.7	344.3	359.0	367.4	374.0	370.9	357.2	329.3	286.7	241.1
37.5°	367.4	367.8	382.9	400.2	419.2	424.6	427.2	414.8	378.9	327.1	270.8
40°	401.5	407.3	425.0	448.9	477.3	487.9	486.6	475.5	432.5	371.4	303.1
42.5°	436.1	448.1	466.2	503.0	536.7	554.0	554.9	545.1	499.9	429.4	345.2
45°	477.3	484.8	512.8	555.3	603.6	626.2	628.4	624.0	581.4	500.3	395.8
47.5°	520.3	527.4	561.1	614.7	675.0	720.6	724.6	720.6	667.9	560.2	441.0
50°	567.3	569.9	610.3	682.1	769.4	819.4	822.1	823.9	752.5	637.3	484.8
52.5°	611.1	612.0	663.9	757.8	869.5	932.0	935.1	931.6	875.3	733.9	567.3
55°	654.6	655.5	721.1	844.7	977.2	1054.8	1074.3	1076.0	974.1	795.9	589.4
57.5°	694.9	698.9	788.4	931.1	1098.6	1205.4	1204.1	1174.4	1032.2	819.4	594.3
60°	731.2	744.1	852.7	1028.2	1197.0	1267.5	1274.6	1209.4	1052.5	829.6	590.3
62.5°	762.3	776.4	913.4	1105.3	1258.6	1300.3	1297.6	1223.6	1081.4	865.1	616.5
65°	787.1	807.5	956.8	1143.4	1271.9	1312.7	1312.2	1259.1	1111.9	872.6	605.8
67.5°	800.8	832.3	963.5	1144.3	1261.7	1279.0	1272.8	1206.8	1054.8	824.3	554.4
70°	808.4	828.7	947.5	1093.8	1174.0	1169.1	1170.4	1090.2	956.4	743.7	492.8
72.5°	780.9	797.7	881.0	984.7	1037.5	1012.7	1024.2	950.6	831.4	634.2	415.3
75°	712.6	720.6	760.9	827.0	855.3	838.5	838.5	785.3	671.0	520.3	335.5
77.5°	596.5	599.2	614.7	650.1	658.1	653.2	651.9	606.3	515.0	397.5	250.8
80°	426.3	436.1	442.7	458.2	475.1	468.0	458.7	421.9	360.3	272.1	172.8
82.5°	264.6	265.5	272.1	282.3	285.0	294.3	292.9	263.7	217.6	162.6	101.0
85°	123.6	121.4	127.6	134.7	138.7	138.3	141.4	127.2	100.6	74.5	46.1
87.5°	19.5	27.5	29.2	28.8	31.9	32.4	33.7	30.6	20.8	14.6	11.1
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°	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1
2.5°	98.4	98.4	97.5	96.6	95.7	95.3	94.8	94.4	94.4	94.0	94.0
5°	100.6	99.7	98.4	97.1	95.7	94.8	94.0	93.5	92.6	92.2	92.2
7.5°	102.4	101.5	99.3	97.5	95.7	94.4	93.1	92.2	91.7	91.3	91.3
10°	105.9	104.1	101.5	98.4	96.2	94.4	93.1	92.2	91.7	91.3	91.3
12.5°	110.8	108.1	103.7	100.6	97.5	95.3	94.0	93.1	92.2	92.2	91.7
15°	116.1	113.0	107.7	102.8	99.3	97.1	95.3	94.8	94.0	94.0	94.0
17.5°	122.3	118.8	112.1	106.4	102.4	99.7	97.9	97.1	96.6	97.1	97.5
20°	130.3	125.4	117.0	110.8	105.9	103.3	101.9	100.6	100.6	101.5	101.5
22.5°	139.6	133.8	123.6	116.1	111.2	107.7	106.8	105.9	105.5	106.4	106.4
25°	149.4	142.7	130.7	122.3	116.6	113.5	112.6	111.7	112.1	112.6	111.2
27.5°	164.4	155.1	139.6	129.9	123.2	120.1	118.8	118.3	118.8	119.2	118.3
30°	178.6	167.5	150.2	138.7	130.3	127.2	125.9	125.9	126.3	126.3	126.3
32.5°	198.1	184.4	162.2	148.5	140.0	136.1	135.6	135.6	134.7	135.2	134.7
35°	221.1	204.7	178.6	161.8	152.0	147.6	146.2	145.4	145.4	145.4	145.4
37.5°	246.0	226.0	195.4	176.8	165.7	160.4	157.8	156.4	156.9	156.9	156.0
40°	273.9	250.8	215.4	192.3	182.1	174.2	171.1	169.7	169.3	168.4	166.2
42.5°	311.1	281.9	239.8	212.3	197.2	191.5	185.7	183.0	180.8	180.4	176.8
45°	355.0	323.5	271.2	240.6	220.7	207.9	202.1	197.7	193.7	192.3	189.7
47.5°	391.3	353.2	299.1	265.0	242.9	229.6	220.3	213.6	208.3	205.2	206.1
50°	432.1	389.6	331.1	288.1	266.3	252.2	243.3	232.2	224.2	219.4	221.1
52.5°	499.0	451.6	375.4	328.0	290.7	276.5	265.0	252.2	241.5	234.9	238.4
55°	517.6	468.0	396.6	353.2	324.4	308.9	291.6	275.7	260.6	251.7	251.7
57.5°	516.7	466.7	398.4	360.3	343.5	332.4	319.5	299.6	280.1	267.2	266.3
60°	510.1	460.0	394.0	355.4	342.6	344.8	339.5	322.6	299.6	281.9	279.2
62.5°	527.4	476.4	405.5	360.3	341.7	343.9	348.3	338.6	316.0	293.8	291.2
65°	516.3	464.9	396.2	356.8	346.6	347.0	350.1	343.0	324.8	304.5	300.0
67.5°	471.1	425.9	364.7	330.6	324.0	331.9	341.7	339.5	324.0	310.2	304.9
70°	413.9	374.0	321.7	293.4	288.5	300.0	316.4	319.5	315.1	306.2	304.5
72.5°	350.6	315.5	271.2	250.0	248.2	257.0	273.4	284.1	287.2	291.2	291.2
75°	281.4	253.9	215.8	201.2	201.2	211.0	224.2	238.0	246.4	257.0	260.1
77.5°	213.6	189.7	162.6	150.2	150.2	159.1	169.3	180.4	194.6	209.2	207.0
80°	146.2	130.7	111.2	105.0	103.7	108.6	117.4	125.0	137.4	147.1	152.9
82.5°	83.8	78.4	66.9	61.6	61.2	67.4	73.6	74.5	82.9	88.6	90.4
85°	39.9	35.0	32.8	29.2	29.7	31.0	33.2	35.0	37.2	39.4	39.4
87.5°	8.9	8.4	7.5	8.0	8.0	7.1	8.0	7.5	8.4	8.9	8.0
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-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)