

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: P198235

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198235
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-8030-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
DRIVE LANE DISTRIBUTION
Light Source: (160) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3244.2 lumens
Efficiency: N/A
Efficacy: 63.7 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): 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



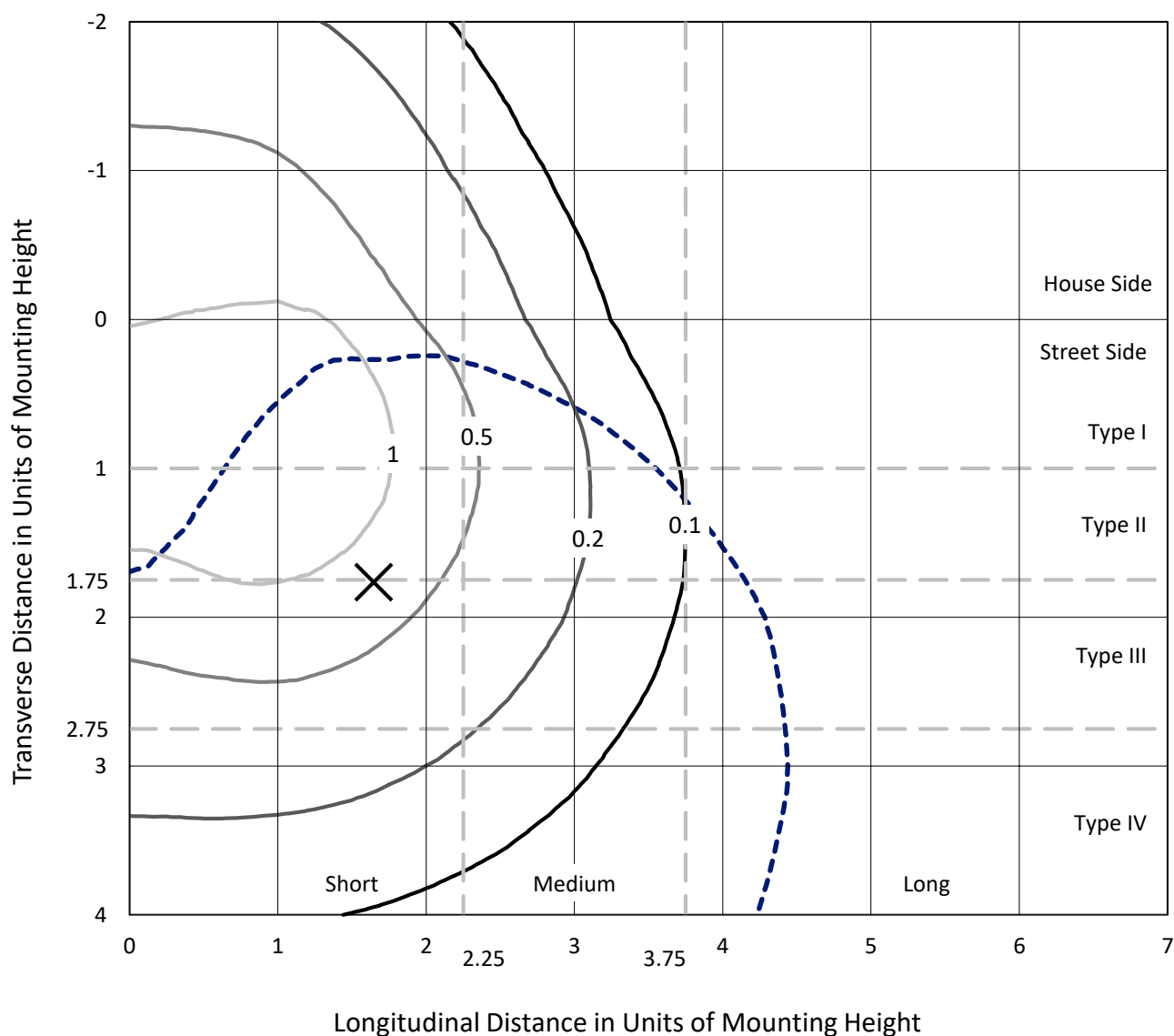
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

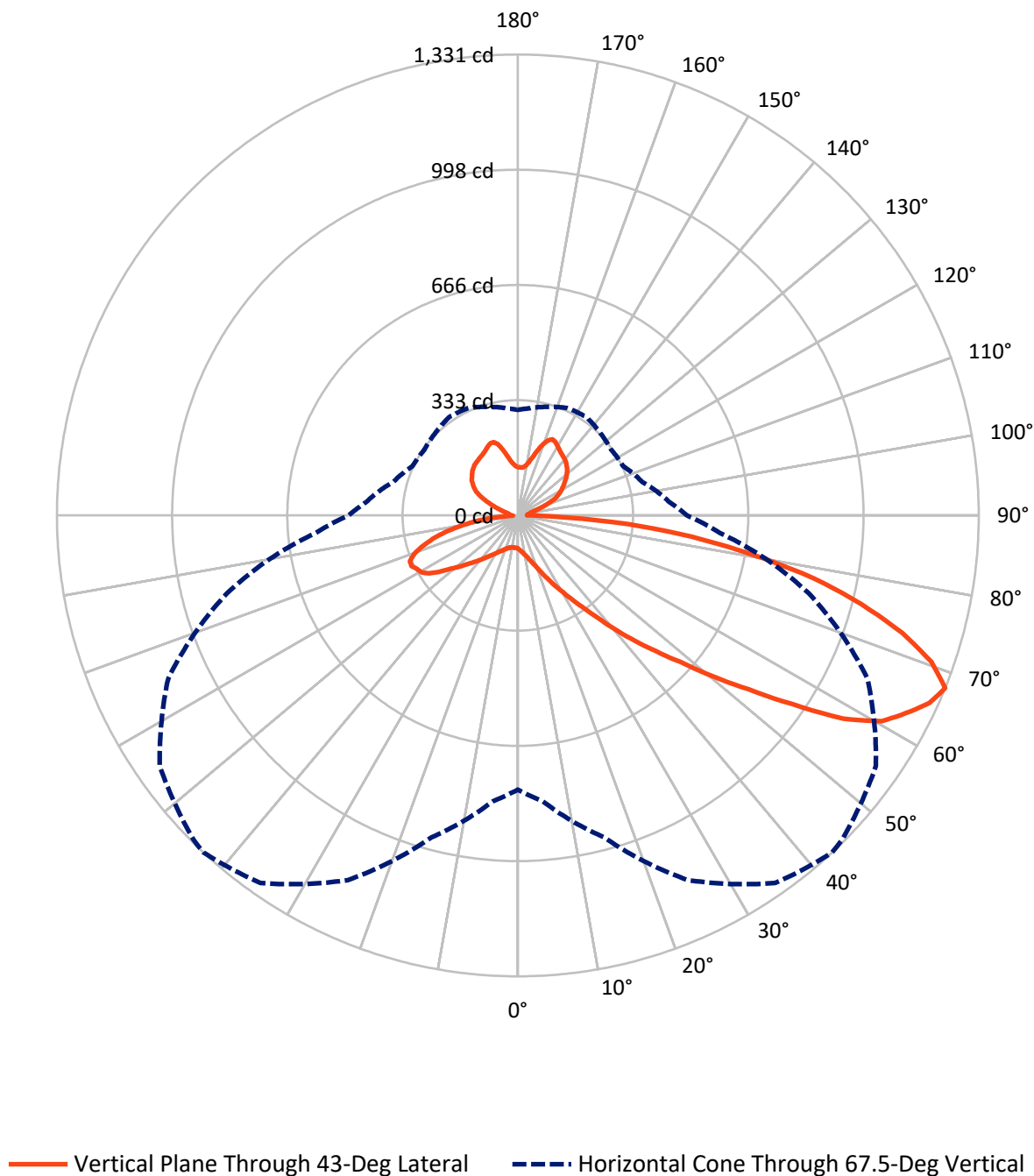


Based on 10 foot mounting height. Maximum calculated value = 2 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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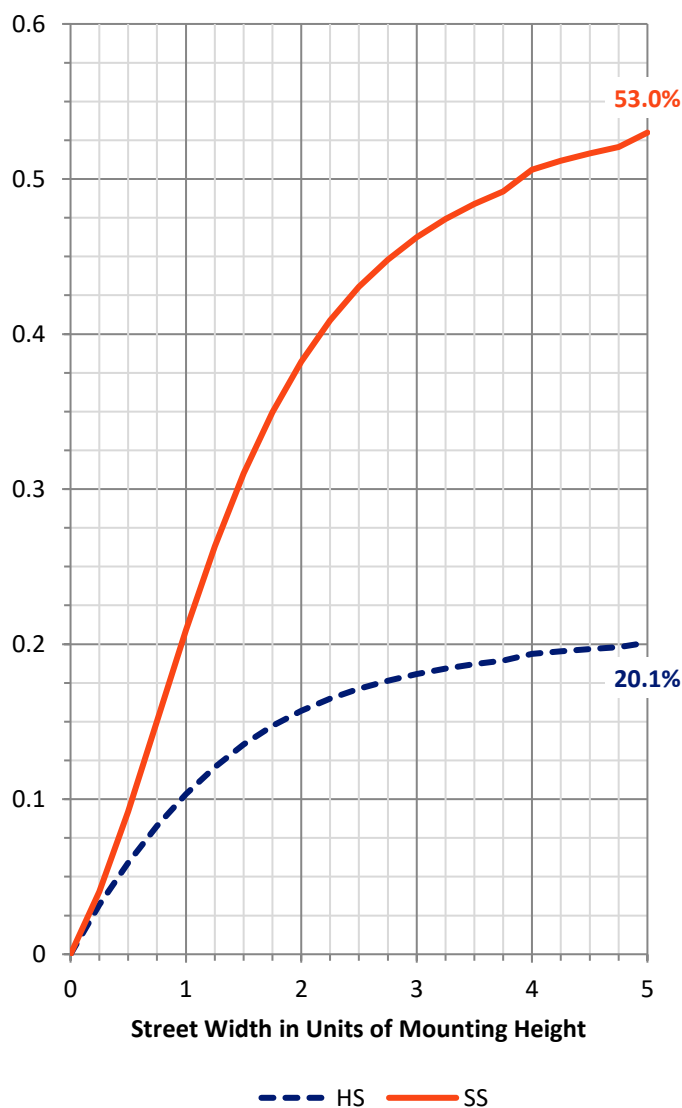
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	668.0	387.3	1055.3
	% Fixture	20.6	11.9	32.5
Street Side	Lumens	1776.3	412.6	2188.9
	% Fixture	54.8	12.7	67.5
Total	Lumens	2444.3	799.9	3244.2
	% Fixture	75.3	24.7	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	9.6	0.3
10°-20°	33.3	1.0
20°-30°	72.8	2.2
30°-40°	144.1	4.4
40°-50°	272.9	8.4
50°-60°	484.5	14.9
60°-70°	670.9	20.7
70°-80°	575.5	17.7
80°-90°	180.6	5.6
90°-100°	36.3	1.1
100°-110°	55.2	1.7
110°-120°	110.8	3.4
120°-130°	144.2	4.4
130°-140°	148.0	4.6
140°-150°	133.4	4.1
150°-160°	102.6	3.2
160°-170°	55.1	1.7
170°-180°	14.3	0.4
0°-90°	2444.3	75.3
0°-180°	3244.2	100.0

Coefficient of Utilization



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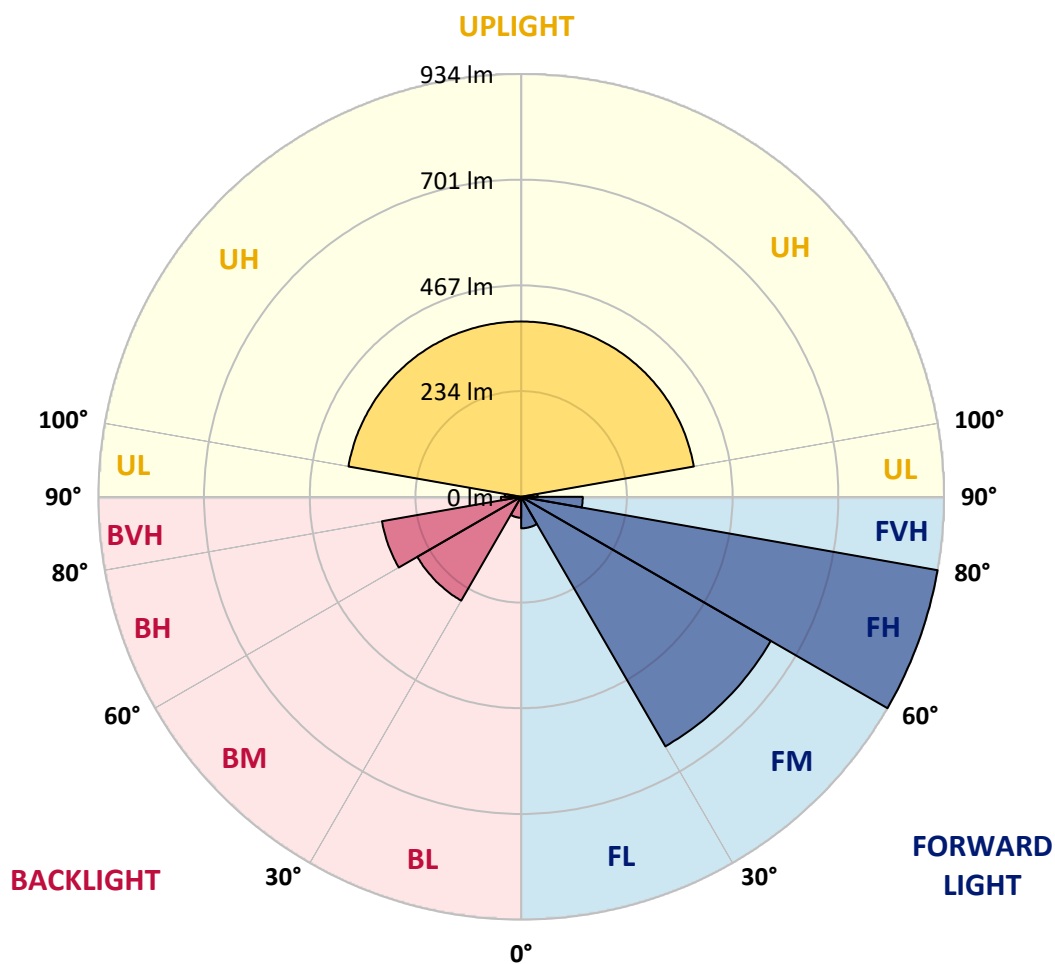
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	69.5	2.1			
FM	(30°-60°)	636.7	19.6			
FH	(60°-80°)	934.1	28.8			G1/1800
FVH	(80°-90°)	136.0	4.2			G2/225
BL	(0°-30°)	46.2	1.4	B0/110		
BM	(30°-60°)	264.8	8.2	B1/1000		
BH	(60°-80°)	312.3	9.6	B1/500		G1/500
BVH	(80°-90°)	44.6	1.4			G1/100
UL	(90°-100°)	36.3	1.1		U2/50	
UH	(100°-180°)	387.3	11.9		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°	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3
2.5°	100.6	100.2	100.2	100.2	99.7	99.3	99.3	98.8	98.4	97.9	97.1
5°	105.9	105.0	105.0	105.0	104.6	104.1	103.7	102.8	101.5	100.2	99.3
7.5°	112.1	112.6	112.6	111.2	110.4	109.5	109.0	107.2	105.5	103.3	101.5
10°	119.7	120.1	120.1	119.2	117.4	116.6	115.7	113.9	110.8	107.7	105.0
12.5°	128.1	129.0	129.4	128.1	125.9	124.1	124.5	121.4	117.4	113.5	109.5
15°	140.5	140.0	141.4	138.7	136.5	134.3	133.8	129.4	125.4	120.1	115.2
17.5°	155.6	153.8	153.8	152.5	151.1	147.6	145.8	141.4	134.7	128.5	121.0
20°	171.1	170.6	169.7	168.9	166.2	162.2	162.6	155.6	147.6	138.7	129.4
22.5°	189.2	191.0	188.4	188.4	186.1	183.0	181.7	172.4	161.8	149.4	138.7
25°	208.7	209.2	209.2	210.1	209.6	204.3	201.6	193.2	180.8	164.4	148.9
27.5°	228.7	230.5	230.0	232.2	233.6	230.0	227.8	218.0	200.3	182.1	162.6
30°	250.8	252.2	254.4	259.7	261.0	257.5	255.7	244.2	226.5	200.8	176.4
32.5°	276.1	277.9	280.1	290.3	295.2	291.2	288.5	278.3	256.2	227.8	196.8
35°	304.0	304.0	311.6	324.0	331.5	328.8	329.7	319.1	295.2	259.7	221.6
37.5°	335.0	335.0	344.8	360.3	374.9	375.8	380.7	368.3	339.0	293.4	246.0
40°	362.5	368.3	382.9	402.8	425.9	433.4	435.6	423.2	387.3	333.3	273.0
42.5°	394.4	401.1	419.2	448.9	478.2	494.6	495.5	483.5	446.3	383.8	312.0
45°	426.8	435.2	457.4	495.0	539.8	559.3	559.7	560.2	526.1	444.1	357.6
47.5°	463.6	470.2	499.5	544.2	601.4	633.3	643.9	645.3	598.7	506.6	397.5
50°	503.4	505.7	546.0	609.4	686.5	730.8	737.0	741.4	675.8	577.5	439.6
52.5°	544.7	547.8	594.7	682.5	779.5	834.5	845.1	846.9	794.2	680.3	521.2
55°	587.2	589.9	650.6	769.8	890.3	962.6	981.6	993.6	910.7	746.3	554.0
57.5°	630.6	637.3	718.4	860.7	1012.7	1108.4	1121.7	1103.5	976.8	780.0	563.3
60°	674.1	686.0	792.0	962.1	1133.2	1207.2	1210.8	1160.2	1008.7	798.6	566.8
62.5°	714.8	734.8	869.1	1056.1	1213.4	1258.2	1258.2	1191.3	1054.3	858.9	607.6
65°	756.1	780.0	927.1	1123.0	1257.3	1306.5	1312.2	1274.6	1133.2	895.7	619.6
67.5°	792.0	828.7	962.6	1162.0	1296.3	1331.3	1324.7	1262.6	1114.1	870.0	586.3
70°	831.8	857.1	987.8	1161.1	1261.3	1267.0	1263.5	1196.6	1053.9	822.1	543.8
72.5°	847.8	868.2	970.6	1100.9	1161.6	1160.7	1154.5	1095.5	960.4	747.6	485.3
75°	831.4	830.1	890.8	978.1	1025.1	1025.5	1020.6	970.6	839.8	642.2	410.8
77.5°	742.3	739.7	766.3	819.4	870.0	874.4	866.0	810.1	699.3	531.8	343.5
80°	599.2	588.1	608.0	651.5	690.5	686.5	693.6	632.4	543.3	410.4	259.7
82.5°	405.5	409.1	433.9	460.0	502.1	505.7	498.1	464.5	393.1	297.8	182.6
85°	209.6	214.5	246.0	286.7	301.4	318.2	316.4	292.9	237.5	172.8	108.6
87.5°	36.8	31.9	44.8	67.8	82.4	98.4	97.9	70.0	55.0	37.2	23.0
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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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°	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3
2.5°	97.1	96.6	96.2	95.3	94.4	94.0	93.5	93.1	93.1	92.6	92.6
5°	98.8	97.9	97.1	95.7	94.8	94.0	93.1	92.6	92.2	91.7	91.7
7.5°	100.6	99.7	97.9	96.2	94.4	93.5	93.1	92.2	91.7	91.3	91.3
10°	103.7	102.4	99.7	97.1	95.3	94.0	92.6	92.2	91.7	91.7	91.3
12.5°	107.2	105.0	101.9	98.8	96.2	94.4	93.5	93.1	92.6	92.6	92.2
15°	112.6	110.4	105.5	101.0	98.8	96.6	95.3	94.8	94.4	94.8	94.4
17.5°	117.9	115.2	109.0	104.6	101.0	99.3	97.9	97.5	97.1	97.9	97.9
20°	125.0	121.0	114.3	108.6	104.6	102.4	101.9	101.0	101.5	101.9	101.9
22.5°	132.5	127.6	119.7	113.0	109.5	106.8	106.4	106.4	106.4	106.8	107.2
25°	141.8	135.6	125.4	118.8	114.3	112.1	111.7	111.7	112.1	112.6	112.6
27.5°	153.3	145.4	133.0	124.5	119.7	117.4	117.0	117.4	118.3	118.8	118.8
30°	166.6	157.3	141.4	132.5	126.7	124.1	124.1	124.5	125.4	126.3	125.0
32.5°	182.6	170.6	152.9	140.9	134.7	132.1	132.1	133.0	132.5	133.0	134.3
35°	203.0	188.8	166.6	152.5	144.5	141.4	141.4	141.8	141.8	142.7	143.1
37.5°	224.7	207.4	181.3	165.7	156.9	152.5	151.1	151.6	152.5	152.0	152.9
40°	248.6	227.8	198.5	179.0	169.7	164.9	162.2	162.2	161.8	161.3	160.9
42.5°	280.5	256.2	219.8	195.9	184.4	179.0	174.6	173.3	172.4	172.8	169.7
45°	320.9	292.5	246.8	220.7	201.6	193.2	188.8	186.1	183.9	182.1	180.4
47.5°	355.0	319.1	271.7	242.0	222.0	211.8	204.7	200.3	195.9	194.1	194.1
50°	391.8	355.4	300.5	261.9	244.2	231.8	224.2	216.3	210.1	206.1	208.3
52.5°	463.1	417.0	343.9	300.0	267.2	253.5	244.6	234.0	225.6	220.3	220.7
55°	484.0	435.6	367.4	325.3	296.9	283.6	269.9	255.7	242.9	235.3	235.8
57.5°	487.1	437.9	371.8	335.0	318.6	309.8	297.8	279.2	262.8	250.8	249.5
60°	484.8	436.5	371.4	334.2	322.2	324.0	320.4	304.5	282.3	267.7	265.9
62.5°	517.2	460.9	390.4	341.7	326.2	328.8	333.3	324.0	302.2	282.3	279.2
65°	519.8	465.3	393.1	351.4	339.5	339.5	342.1	335.0	317.3	296.9	292.1
67.5°	488.4	439.6	372.3	335.9	329.7	336.8	346.1	341.7	324.4	309.8	304.9
70°	453.4	405.5	345.2	310.7	307.6	317.3	332.4	336.4	328.4	316.4	314.7
72.5°	398.4	362.1	305.8	278.8	277.9	287.6	303.1	314.2	316.4	316.9	316.0
75°	343.5	306.2	260.6	240.2	242.0	252.6	266.3	278.3	290.3	300.0	304.0
77.5°	281.4	253.9	217.6	198.1	201.6	213.6	224.7	236.7	249.1	265.9	268.1
80°	215.8	197.2	164.4	156.0	155.6	165.3	178.6	185.7	203.4	217.2	215.8
82.5°	152.5	137.8	119.2	111.7	113.5	120.1	128.5	133.4	146.2	153.8	156.0
85°	90.0	83.8	73.1	66.0	67.8	74.5	75.8	82.0	85.1	90.0	88.6
87.5°	19.1	16.4	14.6	15.1	13.3	13.7	15.5	15.1	15.1	17.7	16.8
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-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)