

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: P198244

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198244
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-MS/DIM-8030-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
DRIVE LANE DISTRIBUTION WITH DIMMING OCCUPANCY SENSOR
Light Source: (160) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3130.2 lumens
Efficiency: N/A
Efficacy: 61.5 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U4 - 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



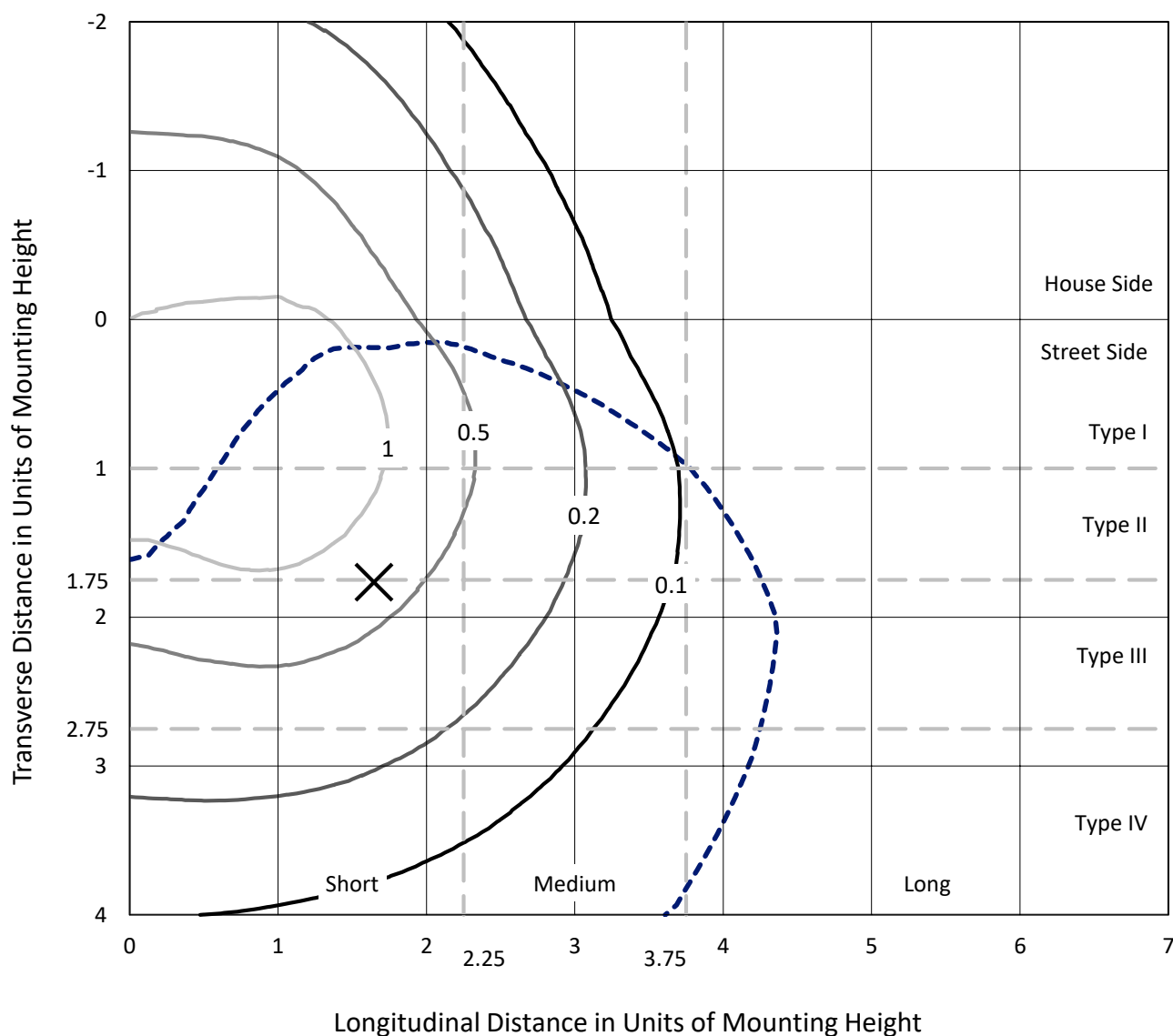
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

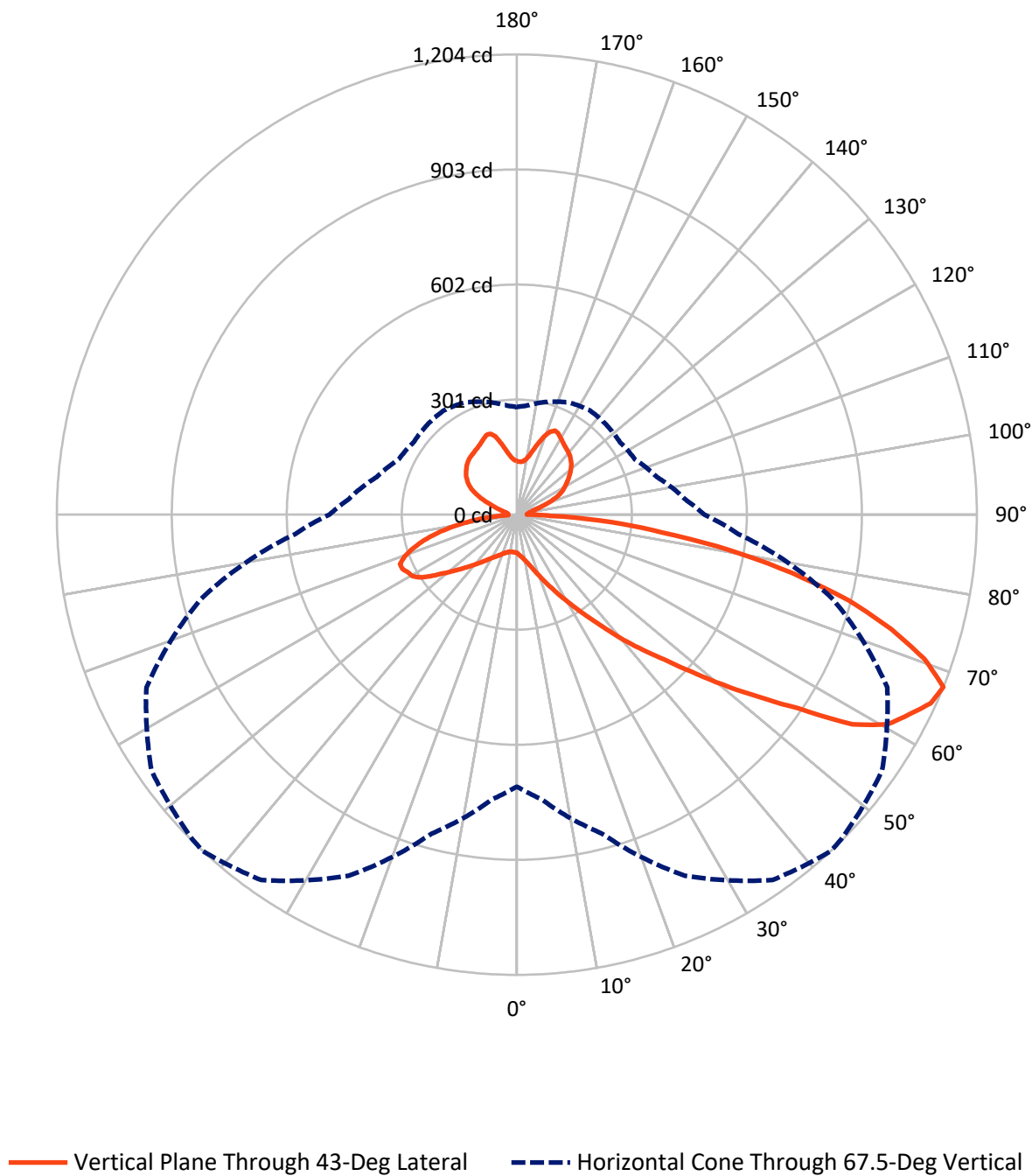


Based on 10 foot mounting height. Maximum calculated value = 1.9 fc
Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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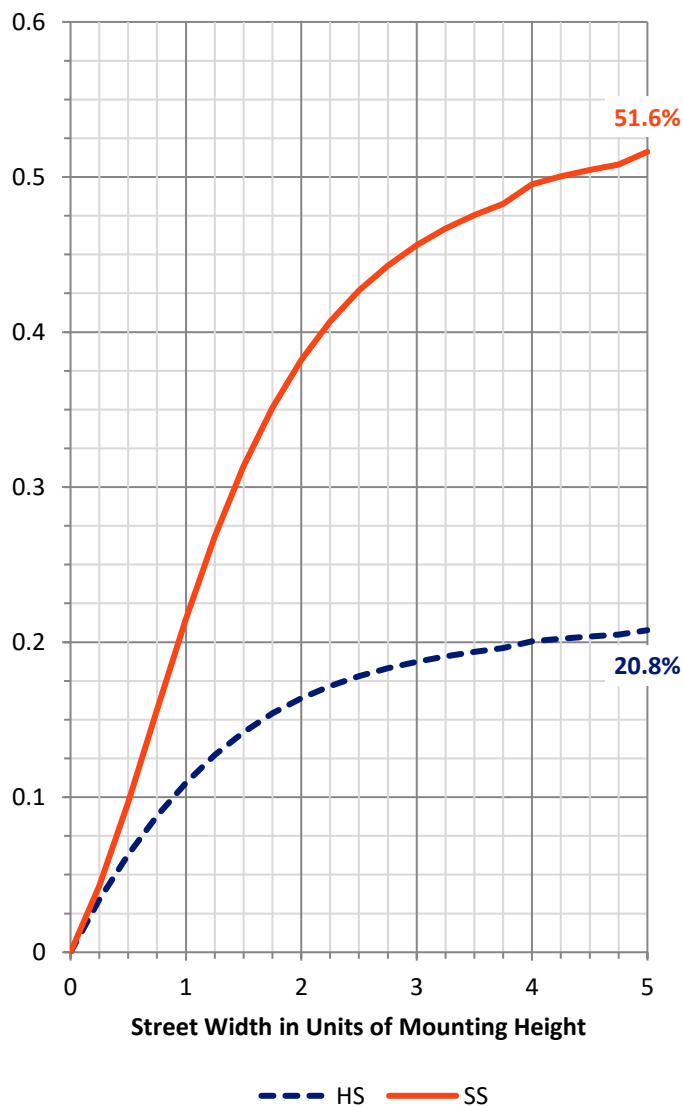
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	666.0	387.3	1053.3
	% Fixture	21.3	12.4	33.7
Street Side	Lumens	1664.2	412.6	2076.9
	% Fixture	53.2	13.2	66.3
Total	Lumens	2330.3	799.9	3130.2
	% Fixture	74.4	25.6	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	10.1	0.3
10°-20°	35.2	1.1
20°-30°	76.3	2.4
30°-40°	147.5	4.7
40°-50°	270.7	8.6
50°-60°	467.5	14.9
60°-70°	632.2	20.2
70°-80°	529.4	16.9
80°-90°	161.2	5.2
90°-100°	36.3	1.2
100°-110°	55.2	1.8
110°-120°	110.8	3.5
120°-130°	144.2	4.6
130°-140°	148.0	4.7
140°-150°	133.4	4.3
150°-160°	102.6	3.3
160°-170°	55.1	1.8
170°-180°	14.3	0.5
0°-90°	2330.3	74.4
0°-180°	3130.2	100.0

Coefficient of Utilization



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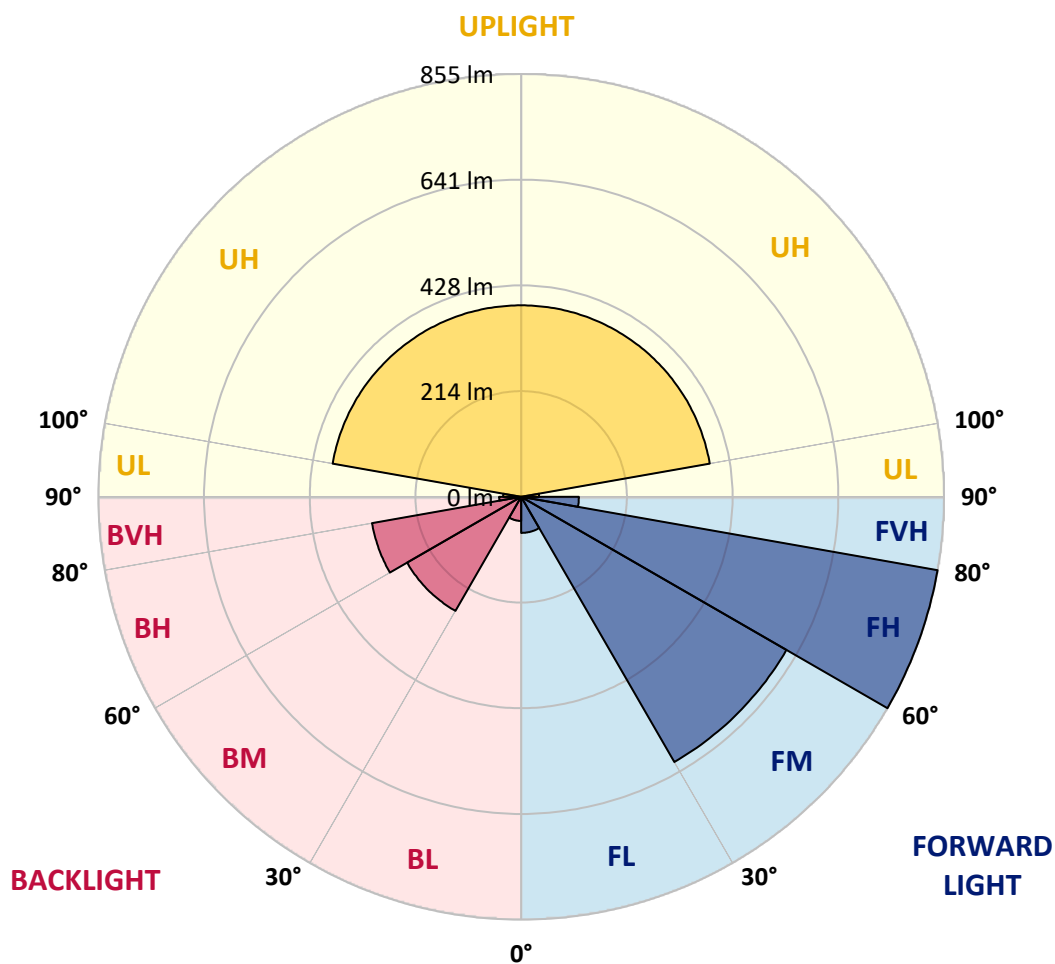
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	73.0	2.3			
FM	(30°-60°)	619.3	19.8			
FH	(60°-80°)	855.2	27.3			G1/1800
FVH	(80°-90°)	116.7	3.7			G2/225
BL	(0°-30°)	48.7	1.6	B0/110		
BM	(30°-60°)	266.3	8.5	B1/1000		
BH	(60°-80°)	306.4	9.8	B1/500		G1/500
BVH	(80°-90°)	44.6	1.4			G1/100
UL	(90°-100°)	36.3	1.2		U2/50	
UH	(100°-180°)	387.3	12.4		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°	100.2	100.2	100.2	100.2	100.2	100.2	100.2	100.2	100.2	100.2	100.2
2.5°	105.9	105.9	105.5	105.5	105.0	104.6	104.1	104.1	103.3	102.8	102.4
5°	111.7	111.7	111.7	110.8	109.9	109.5	109.5	108.1	106.8	105.5	104.1
7.5°	118.8	118.3	118.3	117.4	116.1	114.8	114.3	113.5	111.2	109.5	106.8
10°	126.7	126.7	126.7	125.0	123.6	122.3	121.4	119.7	117.0	113.9	111.2
12.5°	136.5	136.5	136.9	134.7	133.4	130.7	130.3	127.6	124.1	119.7	115.7
15°	147.6	149.4	148.0	148.0	143.6	142.3	141.4	138.3	133.4	127.6	122.3
17.5°	163.5	163.1	161.3	161.8	158.7	156.4	154.2	148.9	143.6	135.6	128.5
20°	181.7	180.8	178.6	177.7	175.9	172.0	171.1	164.0	155.6	147.1	137.8
22.5°	199.4	199.9	199.0	197.2	195.4	192.3	190.6	183.0	171.1	160.0	146.2
25°	217.2	218.9	218.9	220.3	217.2	213.2	211.8	203.0	189.7	172.8	158.2
27.5°	239.3	239.8	241.1	242.9	242.0	238.4	235.8	226.0	209.6	191.0	171.5
30°	261.5	263.2	264.1	267.7	268.6	265.9	263.2	252.2	235.3	211.0	186.1
32.5°	285.4	288.1	289.8	294.7	300.5	298.7	297.8	285.0	265.0	236.7	206.1
35°	312.4	312.9	318.6	329.7	334.6	335.5	333.3	324.4	300.0	266.3	228.2
37.5°	338.1	340.4	350.1	364.3	372.7	378.5	379.4	370.9	343.9	301.4	252.6
40°	366.5	367.8	383.8	398.9	421.5	430.8	428.6	419.7	390.4	341.7	281.4
42.5°	395.8	400.2	415.3	440.1	468.0	483.5	487.5	476.9	447.6	389.6	318.6
45°	424.1	431.2	447.6	480.0	521.6	540.2	544.2	549.5	522.1	449.4	368.3
47.5°	455.1	459.1	484.0	526.9	572.6	612.5	624.0	628.0	585.9	505.7	403.3
50°	487.5	488.4	522.9	581.4	652.8	698.9	699.8	720.2	666.5	577.0	446.3
52.5°	522.1	522.9	563.7	639.1	733.0	790.6	802.2	808.8	781.3	669.6	525.6
55°	556.2	558.4	608.9	717.1	833.6	894.3	921.4	950.2	885.0	741.4	554.4
57.5°	592.1	596.5	670.5	802.2	944.4	1035.3	1049.0	1053.4	951.5	770.2	563.3
60°	624.9	634.6	734.8	884.6	1037.9	1114.1	1115.9	1090.2	976.8	787.1	563.7
62.5°	659.0	671.4	793.7	963.5	1109.7	1151.4	1155.8	1114.6	1021.1	843.4	602.7
65°	684.7	707.8	838.0	1018.9	1138.1	1189.9	1197.9	1186.4	1090.7	881.5	616.0
67.5°	711.3	747.6	863.8	1041.9	1166.4	1203.7	1200.6	1166.9	1069.4	856.7	582.3
70°	745.0	771.6	883.7	1033.9	1125.7	1131.4	1131.4	1089.8	1002.0	807.0	541.1
72.5°	758.3	779.1	861.5	970.1	1026.0	1024.2	1016.2	993.2	910.3	730.8	480.0
75°	744.1	746.8	784.9	850.9	893.0	897.4	888.1	855.8	790.6	633.7	410.8
77.5°	667.4	661.2	670.1	702.9	740.1	737.0	735.7	698.9	648.4	522.9	337.3
80°	525.6	529.2	529.6	535.8	558.4	566.4	558.0	530.0	495.9	406.8	261.0
82.5°	361.2	367.0	372.3	364.3	374.0	382.9	381.6	355.0	343.9	285.4	180.4
85°	194.6	208.3	211.4	215.8	237.5	248.2	244.2	224.2	208.7	176.4	109.0
87.5°	39.4	32.4	46.1	65.6	82.9	89.5	100.6	75.8	60.3	44.3	24.8
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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CATALOG NUMBER: TT-C1-LED-E1-DL-MS/DIM-8030-UPL

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°	100.2	100.2	100.2	100.2	100.2	100.2	100.2	100.2	100.2	100.2	100.2
2.5°	101.9	101.5	101.0	100.2	99.3	98.8	98.4	97.9	97.9	97.9	97.9
5°	103.7	103.3	101.9	101.0	99.7	98.8	97.9	97.5	96.6	96.2	96.6
7.5°	105.9	105.0	102.8	101.0	99.7	98.4	97.5	97.1	96.6	95.7	95.7
10°	109.5	108.1	105.0	102.4	100.6	98.8	97.5	97.1	96.6	96.2	96.2
12.5°	114.3	111.7	108.1	105.0	101.9	99.7	98.8	97.9	97.5	97.5	97.5
15°	119.2	117.0	112.1	107.2	104.1	102.4	101.0	99.7	99.7	99.7	99.7
17.5°	125.9	121.9	116.1	110.8	107.2	104.6	103.7	102.8	102.8	103.3	103.3
20°	133.0	128.5	121.4	115.7	111.2	108.1	107.2	106.8	106.8	107.2	107.2
22.5°	140.9	135.6	126.7	120.1	115.7	113.5	111.7	111.7	111.7	112.1	112.6
25°	151.6	144.0	133.4	125.9	120.5	117.9	117.0	117.0	117.0	117.9	117.9
27.5°	162.6	154.7	140.9	131.6	126.3	123.6	122.3	122.8	123.2	123.6	123.6
30°	175.5	166.2	149.4	139.6	133.0	129.9	128.5	129.0	129.4	130.3	129.4
32.5°	191.5	179.9	160.9	148.0	140.5	137.4	136.5	136.9	136.9	136.9	137.4
35°	212.7	198.1	174.6	158.2	150.7	146.2	145.4	145.4	145.4	144.9	144.9
37.5°	233.6	214.9	188.4	172.0	162.2	156.9	154.2	154.2	154.2	154.2	154.2
40°	257.9	236.2	206.1	186.6	175.1	168.4	164.9	163.5	163.1	162.6	161.8
42.5°	289.4	264.6	226.5	202.5	188.8	181.7	176.4	173.7	172.0	171.5	170.2
45°	331.5	300.9	257.0	226.0	206.1	196.3	190.1	184.8	181.7	180.8	178.6
47.5°	362.5	327.1	278.3	246.4	225.6	213.2	203.9	196.8	192.3	190.1	188.8
50°	394.9	361.6	308.0	268.6	247.3	233.1	221.1	211.4	203.4	200.3	199.9
52.5°	465.8	421.5	348.8	300.0	269.5	253.5	241.1	229.6	217.2	211.8	213.2
55°	487.9	441.8	374.0	330.6	299.1	280.5	262.8	247.7	233.6	224.2	224.7
57.5°	490.6	443.6	379.4	340.8	319.5	304.5	289.0	268.1	250.8	238.0	237.5
60°	487.1	440.5	378.0	339.5	323.5	319.1	309.3	291.2	266.3	251.3	249.5
62.5°	515.0	465.3	392.2	344.3	324.4	322.6	319.5	308.9	283.6	264.1	261.0
65°	520.3	468.4	399.7	357.2	338.6	331.9	328.4	316.0	299.6	274.8	272.6
67.5°	490.2	443.6	379.4	341.2	329.7	331.9	332.8	323.5	305.3	285.8	281.4
70°	454.3	407.7	352.3	315.5	307.6	312.0	320.4	320.4	307.1	290.7	291.2
72.5°	400.6	363.0	312.4	285.8	277.9	283.6	293.4	300.9	297.4	291.6	292.1
75°	343.0	310.2	268.6	249.1	243.3	250.4	260.1	269.0	274.3	278.3	281.0
77.5°	282.3	257.9	222.9	204.3	204.3	211.0	220.3	228.2	237.1	247.3	249.1
80°	217.2	197.7	172.0	159.1	160.4	165.7	175.5	182.6	187.9	196.8	198.1
82.5°	153.3	141.8	120.1	110.8	113.0	120.1	124.5	129.4	133.4	135.6	138.3
85°	90.4	81.5	71.8	68.7	68.7	71.4	77.1	78.0	78.4	78.9	78.4
87.5°	22.6	24.8	21.3	20.8	20.8	22.6	21.7	23.5	23.5	24.4	22.6
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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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)