

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: P198464

Luminaire Tested: **TT-C4-LED-E1-WQ-CG-8030-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198464
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (P27139) AND DOWNLIGHT
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: TT-C4-LED-E1-WQ-CG-8030-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
WIDE 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: 5769.6 lumens
Efficiency: N/A
Efficacy: 76.5 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B3 - U4 - G1

Input Watts (W): 75.4
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

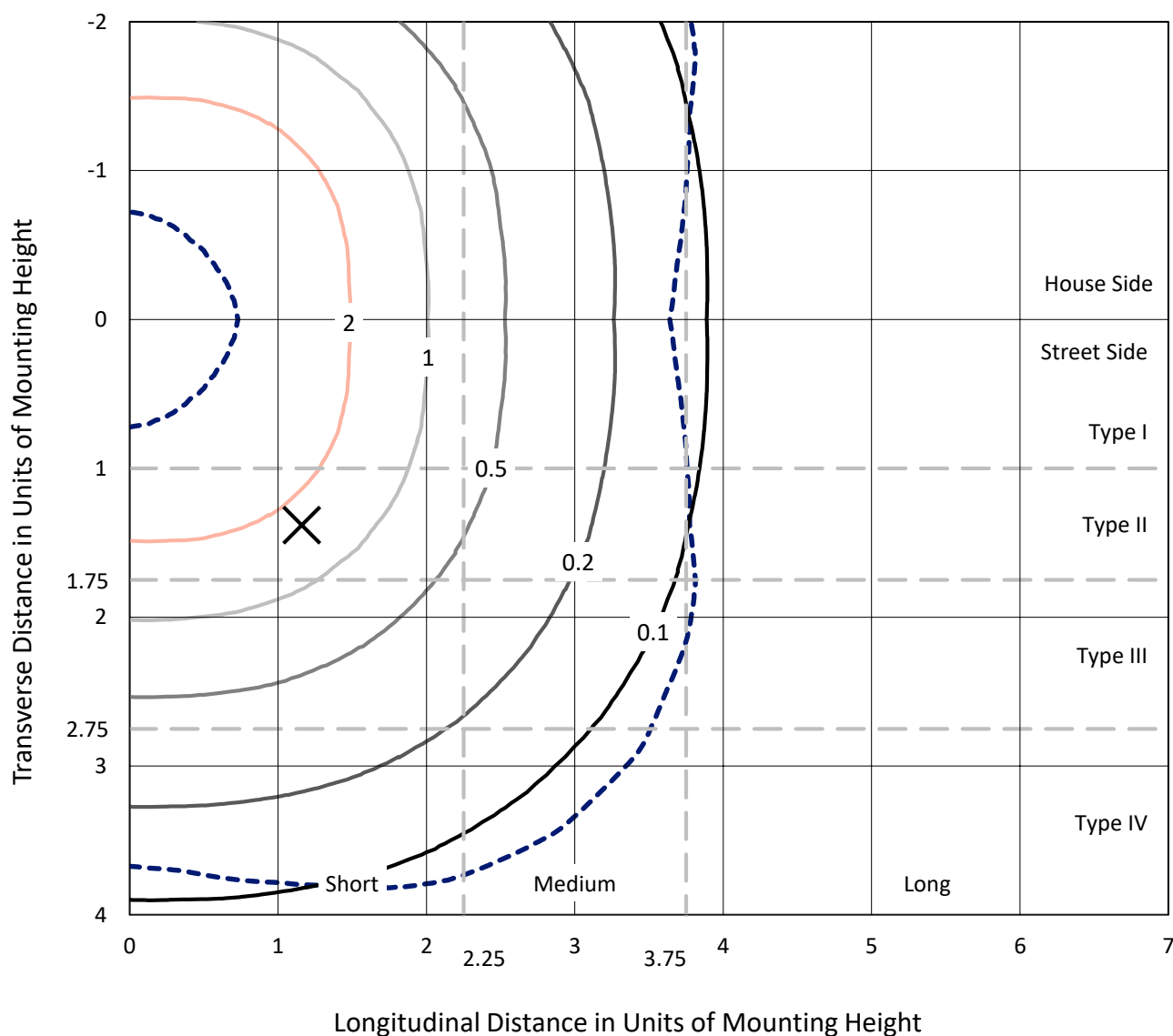


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

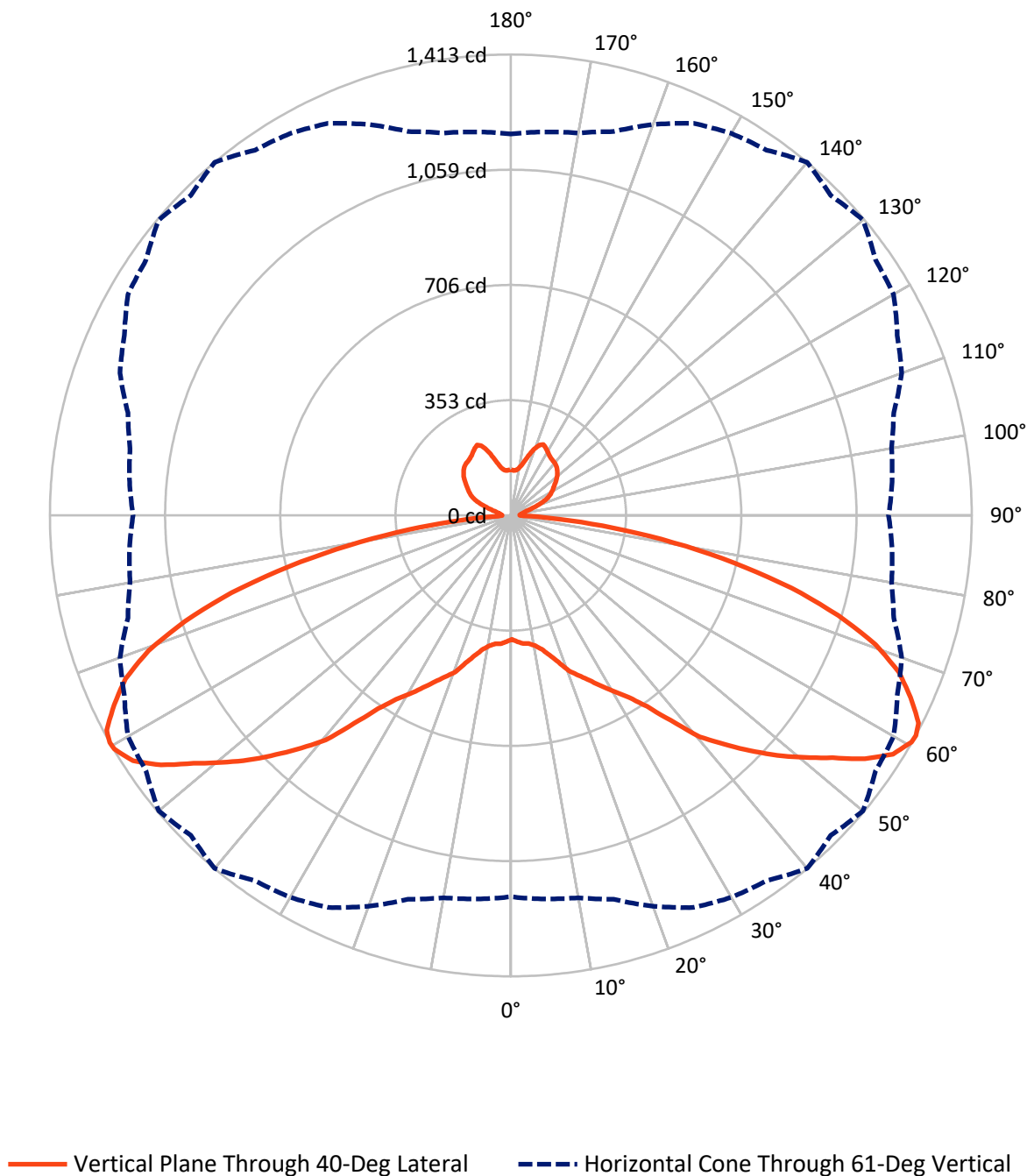


Based on 10 foot mounting height. Maximum calculated value = 4.2 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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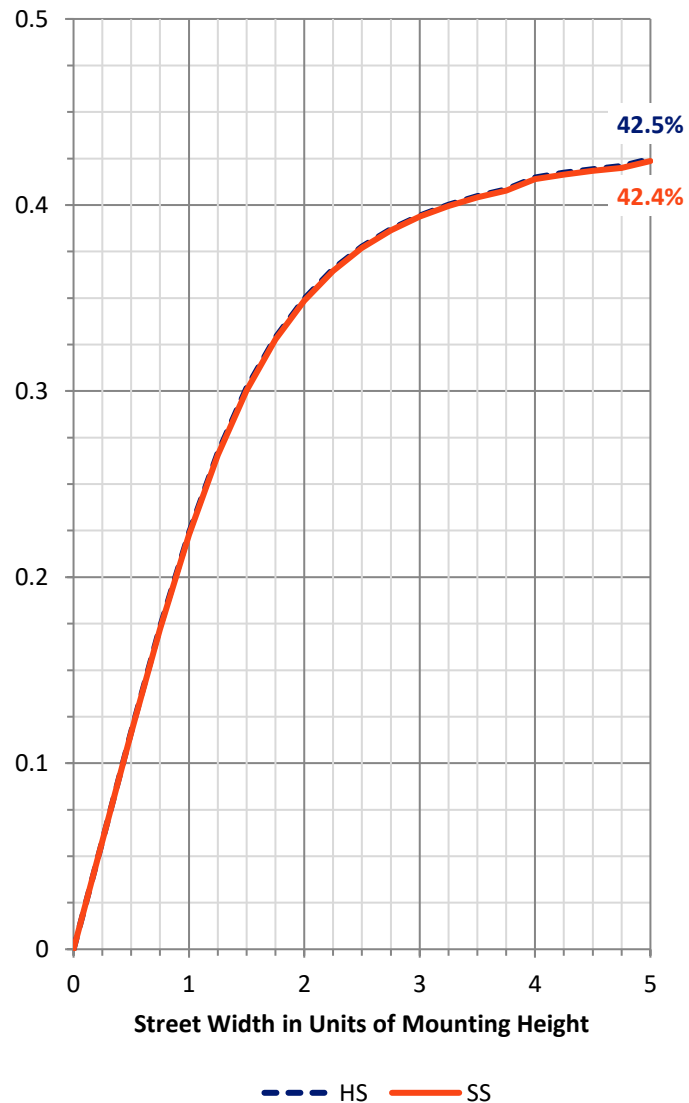
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2472.8	412.0	2884.8
	% Fixture	42.9	7.1	50.0
Street Side	Lumens	2472.8	412.0	2884.8
	% Fixture	42.9	7.1	50.0
Total	Lumens	4945.6	824.0	5769.6
	% Fixture	85.7	14.3	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.8	0.7
10°-20°	127.8	2.2
20°-30°	259.1	4.5
30°-40°	450.6	7.8
40°-50°	758.5	13.1
50°-60°	1092.8	18.9
60°-70°	1212.6	21.0
70°-80°	823.5	14.3
80°-90°	182.8	3.2
90°-100°	38.3	0.7
100°-110°	59.4	1.0
110°-120°	119.3	2.1
120°-130°	148.7	2.6
130°-140°	153.2	2.7
140°-150°	136.0	2.4
150°-160°	103.7	1.8
160°-170°	51.8	0.9
170°-180°	13.6	0.2
0°-90°	4945.6	85.7
0°-180°	5769.6	100.0

Coefficient of Utilization



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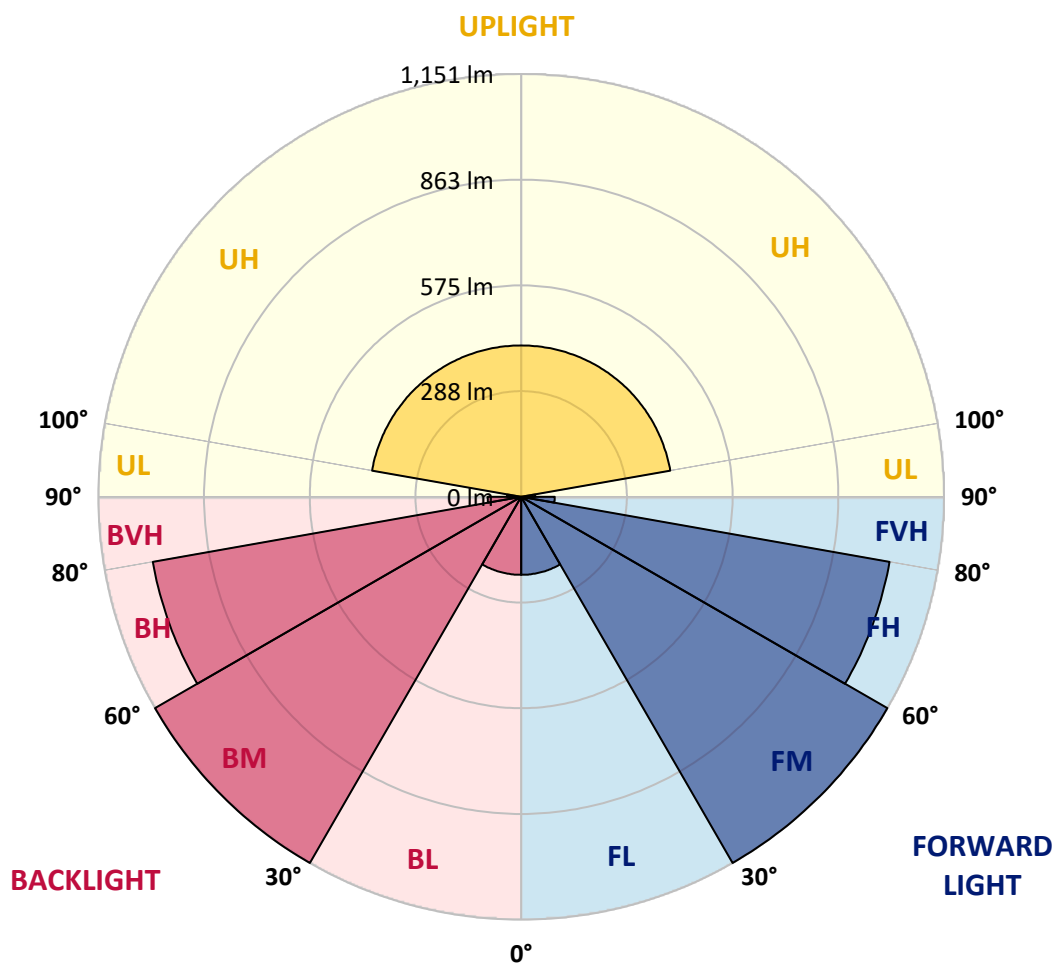
CATALOG NUMBER: TT-C4-LED-E1-WQ-CG-8030-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	212.3	3.7			
FM	(30°-60°)	1151.0	19.9			
FH	(60°-80°)	1018.1	17.6			G1/1800
FVH	(80°-90°)	91.4	1.6			G1/100
BL	(0°-30°)	212.3	3.7	B1/500		
BM	(30°-60°)	1151.0	19.9	B2/2500		
BH	(60°-80°)	1018.1	17.6	B3/2500		G1/1800
BVH	(80°-90°)	91.4	1.6			G1/100
UL	(90°-100°)	38.3	0.7		U2/50	
UH	(100°-180°)	412.0	7.1		U3/500	

BUG Rating: B3-U4-G1

Type V Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	379.6	379.6	379.6	379.6	379.6	379.6	379.6	379.6	379.6	379.6	379.6
2.5°	388.6	388.6	388.6	388.6	388.6	387.6	388.6	387.6	387.6	387.6	387.6
5°	391.6	392.6	392.6	392.6	392.6	393.6	393.6	394.6	394.6	394.6	394.6
7.5°	394.6	394.6	394.6	394.6	394.6	394.6	395.6	395.6	396.6	396.6	397.6
10°	406.6	406.6	407.6	407.6	406.6	406.6	406.6	405.6	405.6	404.6	404.6
12.5°	423.6	423.6	424.6	425.6	425.6	424.6	423.6	421.6	420.6	420.6	420.6
15°	436.6	437.6	439.6	441.6	442.6	442.6	443.6	443.6	443.6	442.6	441.6
17.5°	461.5	461.5	462.5	463.5	463.5	464.5	466.5	468.5	472.5	473.5	470.5
20°	497.5	498.5	501.5	500.5	500.5	502.5	504.5	505.5	508.5	510.5	510.5
22.5°	524.5	526.5	530.5	530.5	529.5	530.5	532.5	532.5	532.5	531.5	533.5
25°	545.4	547.4	550.4	550.4	552.4	557.4	563.4	562.4	559.4	559.4	558.4
27.5°	573.4	574.4	576.4	576.4	579.4	582.4	586.4	590.4	592.4	591.4	589.4
30°	608.4	610.4	612.4	609.4	614.4	617.4	619.4	619.4	627.4	631.4	624.4
32.5°	634.4	638.4	642.3	645.3	655.3	660.3	657.3	660.3	664.3	668.3	668.3
35°	677.3	681.3	684.3	686.3	696.3	703.3	711.3	719.3	718.3	715.3	721.3
37.5°	739.3	743.2	746.2	750.2	763.2	768.2	774.2	791.2	797.2	789.2	793.2
40°	805.2	812.2	822.2	834.2	853.1	859.1	869.1	881.1	892.1	896.1	886.1
42.5°	862.1	870.1	872.1	891.1	914.1	932.1	946.0	949.0	959.0	968.0	961.0
45°	923.1	930.1	935.1	951.0	964.0	989.0	1012.0	1023.0	1028.0	1027.0	1035.0
47.5°	980.0	988.0	995.0	1012.0	1028.0	1048.9	1063.9	1089.9	1098.9	1086.9	1099.9
50°	1015.0	1025.0	1034.0	1065.9	1093.9	1115.9	1127.9	1149.8	1165.8	1157.8	1160.8
52.5°	1072.9	1076.9	1083.9	1101.9	1138.8	1189.8	1201.8	1213.8	1233.7	1243.7	1225.8
55°	1146.8	1157.8	1167.8	1190.8	1209.8	1247.7	1302.7	1317.7	1316.7	1347.6	1319.7
57.5°	1162.8	1178.8	1198.8	1240.7	1277.7	1299.7	1334.6	1376.6	1380.6	1382.6	1386.6
60°	1164.8	1174.8	1187.8	1222.8	1287.7	1327.7	1347.6	1374.6	1410.6	1384.6	1411.6
61°	1168.8	1179.8	1189.8	1217.8	1274.7	1325.7	1351.6	1366.6	1412.6	1386.6	1408.6
62.5°	1161.8	1174.8	1189.8	1216.8	1254.7	1306.7	1356.6	1356.6	1402.6	1385.6	1397.6
65°	1119.9	1131.9	1160.8	1195.8	1241.7	1268.7	1320.7	1353.6	1346.6	1376.6	1346.6
67.5°	1048.9	1058.9	1083.9	1124.9	1174.8	1212.8	1236.7	1289.7	1282.7	1313.7	1279.7
70°	949.0	962.0	993.0	1021.0	1067.9	1107.9	1139.8	1171.8	1185.8	1182.8	1184.8
72.5°	829.2	838.2	866.1	897.1	934.1	979.0	1008.0	1028.0	1049.9	1048.9	1052.9
75°	690.3	698.3	722.3	745.2	781.2	816.2	849.1	870.1	888.1	887.1	883.1
77.5°	532.5	541.5	568.4	588.4	605.4	644.3	669.3	683.3	698.3	698.3	700.3
80°	371.6	377.6	398.6	419.6	435.6	454.5	486.5	489.5	506.5	502.5	506.5
82.5°	223.8	227.8	243.8	255.7	266.7	284.7	299.7	305.7	315.7	311.7	317.7
85°	100.9	102.9	112.9	119.9	124.9	134.9	142.9	145.9	150.8	149.8	153.8
87.5°	21.0	23.0	26.0	28.0	29.0	33.0	36.0	36.0	38.0	38.0	39.0
90°	36.0	36.0	36.0	36.0	35.0	34.0	31.0	29.0	27.0	26.0	26.0
92.5°	40.0	39.0	39.0	38.0	36.0	34.0	32.0	29.0	27.0	27.0	27.0
95°	44.0	43.0	42.0	41.0	38.0	36.0	34.0	32.0	31.0	30.0	30.0
97.5°	42.0	42.0	41.0	40.0	38.0	37.0	36.0	35.0	34.0	33.0	32.0
100°	45.0	45.0	45.0	44.0	42.0	40.0	39.0	38.0	36.0	36.0	35.0
102.5°	51.0	51.0	50.0	49.0	47.0	46.0	45.0	44.0	42.0	42.0	42.0
105°	60.0	60.0	59.0	57.0	55.0	54.0	53.0	53.0	51.0	52.0	52.0
107.5°	72.0	72.0	72.0	70.0	68.0	67.0	66.0	66.0	66.0	68.0	68.0

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
110°	86.0	86.0	87.0	89.0	86.0	85.0	85.0	86.0	86.0	87.0	86.0
112.5°	101.0	102.0	104.0	108.0	106.0	107.0	107.0	110.0	108.0	107.0	103.0
115°	121.0	122.0	123.0	128.0	126.0	128.0	127.0	129.0	126.0	124.0	120.0
117.5°	140.0	141.0	141.0	144.0	141.0	141.0	140.0	141.0	138.0	136.0	135.0
120°	152.0	153.0	154.0	155.0	151.0	149.0	147.0	149.0	147.0	147.0	148.0
122.5°	161.0	162.0	163.0	164.0	159.0	154.0	153.0	155.0	156.0	158.0	158.0
125°	169.0	169.0	170.0	172.0	168.0	163.0	160.0	165.0	166.0	168.0	167.0
127.5°	177.0	177.0	179.0	181.0	177.0	171.0	170.0	176.0	177.0	178.0	175.0
130°	187.0	188.0	190.0	191.0	185.0	179.0	179.0	186.0	187.0	186.0	183.0
132.5°	198.0	199.0	200.0	201.0	193.0	186.0	187.0	193.0	195.0	195.0	191.0
135°	210.0	210.0	211.0	209.0	199.0	192.0	193.0	199.0	202.0	201.0	197.0
137.5°	221.0	219.0	217.0	213.0	203.0	197.0	198.0	205.0	207.0	208.0	203.0
140°	229.0	226.0	222.0	216.0	205.0	200.0	201.0	207.0	210.0	213.0	212.0
142.5°	235.0	231.0	225.0	218.0	206.0	201.0	202.0	208.0	212.0	218.0	218.0
145°	235.0	230.0	225.0	218.0	207.0	202.0	204.0	211.0	215.0	223.0	225.0
147.5°	230.0	227.0	223.0	219.0	210.0	207.0	209.0	216.0	220.0	229.0	233.0
150°	224.0	221.0	219.0	220.0	215.0	214.0	216.0	222.0	227.0	235.0	239.0
152.5°	216.0	214.0	216.0	221.0	220.0	220.0	224.0	230.0	234.0	241.0	241.0
155°	208.0	207.0	211.0	219.0	222.0	224.0	229.0	237.0	239.0	243.0	239.0
157.5°	203.0	203.0	207.0	216.0	220.0	224.0	229.0	234.0	232.0	235.0	230.0
160°	199.0	198.0	203.0	210.0	212.0	213.0	216.0	219.0	216.0	219.0	216.0
162.5°	185.0	184.0	188.0	193.0	194.0	193.0	196.0	198.0	195.0	198.0	196.0
165°	169.0	167.0	169.0	173.0	173.0	173.0	175.0	176.0	174.0	177.0	175.0
167.5°	154.0	152.0	153.0	156.0	156.0	155.0	157.0	159.0	157.0	159.0	158.0
170°	142.0	141.0	142.0	145.0	144.0	144.0	146.0	147.0	146.0	147.0	147.0
172.5°	137.0	135.0	136.0	139.0	139.0	138.0	140.0	141.0	140.0	141.0	140.0
175°	136.0	134.0	135.0	137.0	137.0	137.0	138.0	139.0	138.0	139.0	138.0
177.5°	137.0	136.0	136.0	139.0	138.0	138.0	139.0	140.0	139.0	139.0	138.0
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	379.6	379.6	379.6	379.6	379.6	379.6	379.6	379.6
2.5°	387.6	388.6	387.6	387.6	387.6	388.6	387.6	388.6
5°	394.6	394.6	394.6	393.6	392.6	392.6	392.6	391.6
7.5°	398.6	398.6	397.6	396.6	395.6	396.6	396.6	396.6
10°	406.6	408.6	409.6	409.6	408.6	408.6	408.6	407.6
12.5°	420.6	421.6	424.6	425.6	426.6	425.6	422.6	421.6
15°	439.6	439.6	440.6	442.6	442.6	438.6	435.6	434.6
17.5°	466.5	465.5	463.5	463.5	464.5	462.5	459.5	459.5
20°	507.5	503.5	501.5	498.5	501.5	501.5	495.5	492.5
22.5°	536.5	532.5	527.5	524.5	528.5	531.5	524.5	520.5
25°	561.4	562.4	554.4	550.4	551.4	553.4	544.4	543.4
27.5°	587.4	589.4	585.4	578.4	576.4	580.4	573.4	571.4
30°	619.4	618.4	620.4	611.4	607.4	610.4	609.4	604.4
32.5°	661.3	656.3	658.3	650.3	642.3	642.3	636.4	630.4
35°	719.3	708.3	703.3	698.3	683.3	684.3	679.3	674.3
37.5°	795.2	778.2	764.2	767.2	745.2	743.2	740.2	733.3
40°	882.1	874.1	858.1	849.1	826.2	815.2	811.2	798.2
42.5°	947.0	949.0	925.1	909.1	891.1	872.1	870.1	857.1
45°	1017.0	1010.0	988.0	962.0	954.0	931.1	928.1	915.1
47.5°	1086.9	1062.9	1049.9	1023.0	1010.0	981.0	983.0	971.0
50°	1152.8	1124.9	1112.9	1080.9	1060.9	1032.0	1025.0	1005.0
52.5°	1222.8	1196.8	1177.8	1136.8	1107.9	1085.9	1073.9	1065.9
55°	1316.7	1290.7	1247.7	1209.8	1185.8	1149.8	1145.8	1131.9
57.5°	1360.6	1341.6	1294.7	1267.7	1224.8	1187.8	1175.8	1147.8
60°	1365.6	1357.6	1307.7	1281.7	1218.8	1188.8	1173.8	1156.8
61°	1364.6	1354.6	1306.7	1274.7	1214.8	1184.8	1172.8	1157.8
62.5°	1360.6	1348.6	1295.7	1262.7	1206.8	1177.8	1167.8	1145.8
65°	1347.6	1314.7	1268.7	1238.7	1177.8	1151.8	1127.9	1105.9
67.5°	1290.7	1228.8	1209.8	1171.8	1109.9	1080.9	1058.9	1039.9
70°	1168.8	1127.9	1107.9	1060.9	1011.0	987.0	962.0	938.0
72.5°	1026.0	999.0	982.0	925.1	888.1	864.1	841.1	818.2
75°	866.1	846.1	815.2	772.2	739.3	715.3	694.3	683.3
77.5°	680.3	667.3	643.3	600.4	582.4	561.4	540.5	523.5
80°	489.5	479.5	460.5	429.6	414.6	393.6	378.6	364.6
82.5°	304.7	296.7	285.7	262.7	256.7	243.8	229.8	219.8
85°	145.9	140.9	136.9	121.9	120.9	109.9	104.9	98.9
87.5°	38.0	37.0	35.0	30.0	29.0	26.0	24.0	21.0
90°	28.0	30.0	32.0	33.0	34.0	34.0	34.0	34.0
92.5°	28.0	30.0	32.0	33.0	35.0	36.0	36.0	36.0
95°	30.0	32.0	34.0	35.0	37.0	38.0	39.0	38.0
97.5°	33.0	34.0	34.0	35.0	36.0	36.0	36.0	36.0
100°	36.0	37.0	38.0	38.0	38.0	38.0	37.0	37.0
102.5°	43.0	44.0	44.0	42.0	42.0	41.0	41.0	41.0
105°	54.0	54.0	53.0	51.0	49.0	48.0	48.0	49.0
107.5°	68.0	68.0	66.0	63.0	60.0	59.0	59.0	60.0

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CATALOG NUMBER: TT-C4-LED-E1-WQ-CG-8030-UPL

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
110°	84.0	83.0	84.0	81.0	78.0	76.0	74.0	75.0
112.5°	102.0	102.0	105.0	103.0	100.0	98.0	95.0	94.0
115°	121.0	123.0	125.0	124.0	123.0	121.0	116.0	113.0
117.5°	138.0	140.0	141.0	139.0	139.0	139.0	133.0	129.0
120°	150.0	151.0	153.0	148.0	148.0	148.0	145.0	142.0
122.5°	159.0	160.0	162.0	156.0	155.0	156.0	153.0	150.0
125°	167.0	167.0	168.0	164.0	163.0	164.0	160.0	158.0
127.5°	176.0	175.0	175.0	173.0	173.0	173.0	166.0	163.0
130°	183.0	182.0	183.0	181.0	184.0	181.0	171.0	169.0
132.5°	190.0	189.0	192.0	189.0	192.0	190.0	179.0	176.0
135°	196.0	197.0	201.0	199.0	199.0	195.0	185.0	184.0
137.5°	203.0	205.0	210.0	207.0	204.0	198.0	191.0	190.0
140°	212.0	214.0	217.0	214.0	209.0	202.0	195.0	195.0
142.5°	220.0	222.0	223.0	217.0	211.0	204.0	198.0	198.0
145°	230.0	230.0	227.0	217.0	211.0	205.0	201.0	202.0
147.5°	239.0	236.0	229.0	218.0	212.0	207.0	204.0	206.0
150°	242.0	240.0	232.0	220.0	214.0	211.0	210.0	211.0
152.5°	242.0	241.0	235.0	223.0	219.0	217.0	215.0	216.0
155°	238.0	237.0	234.0	227.0	224.0	223.0	220.0	219.0
157.5°	228.0	229.0	229.0	226.0	226.0	225.0	222.0	219.0
160°	215.0	217.0	219.0	219.0	221.0	222.0	218.0	215.0
162.5°	196.0	199.0	200.0	201.0	204.0	208.0	207.0	207.0
165°	176.0	179.0	181.0	181.0	185.0	189.0	190.0	192.0
167.5°	160.0	163.0	165.0	164.0	168.0	171.0	172.0	174.0
170°	148.0	150.0	152.0	152.0	155.0	158.0	159.0	160.0
172.5°	141.0	144.0	145.0	144.0	146.0	149.0	149.0	151.0
175°	138.0	140.0	141.0	140.0	141.0	143.0	143.0	144.0
177.5°	138.0	140.0	140.0	138.0	140.0	141.0	141.0	141.0
180°	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0

(END OF REPORT)