

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: P198474

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198474
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-SG-8030-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
WIDE DISTRIBUTION WITH SOFTENING GLASS LENS
Light Source: (160) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5712.3 lumens
Efficiency: N/A
Efficacy: 75.8 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B2 - U4 - G1

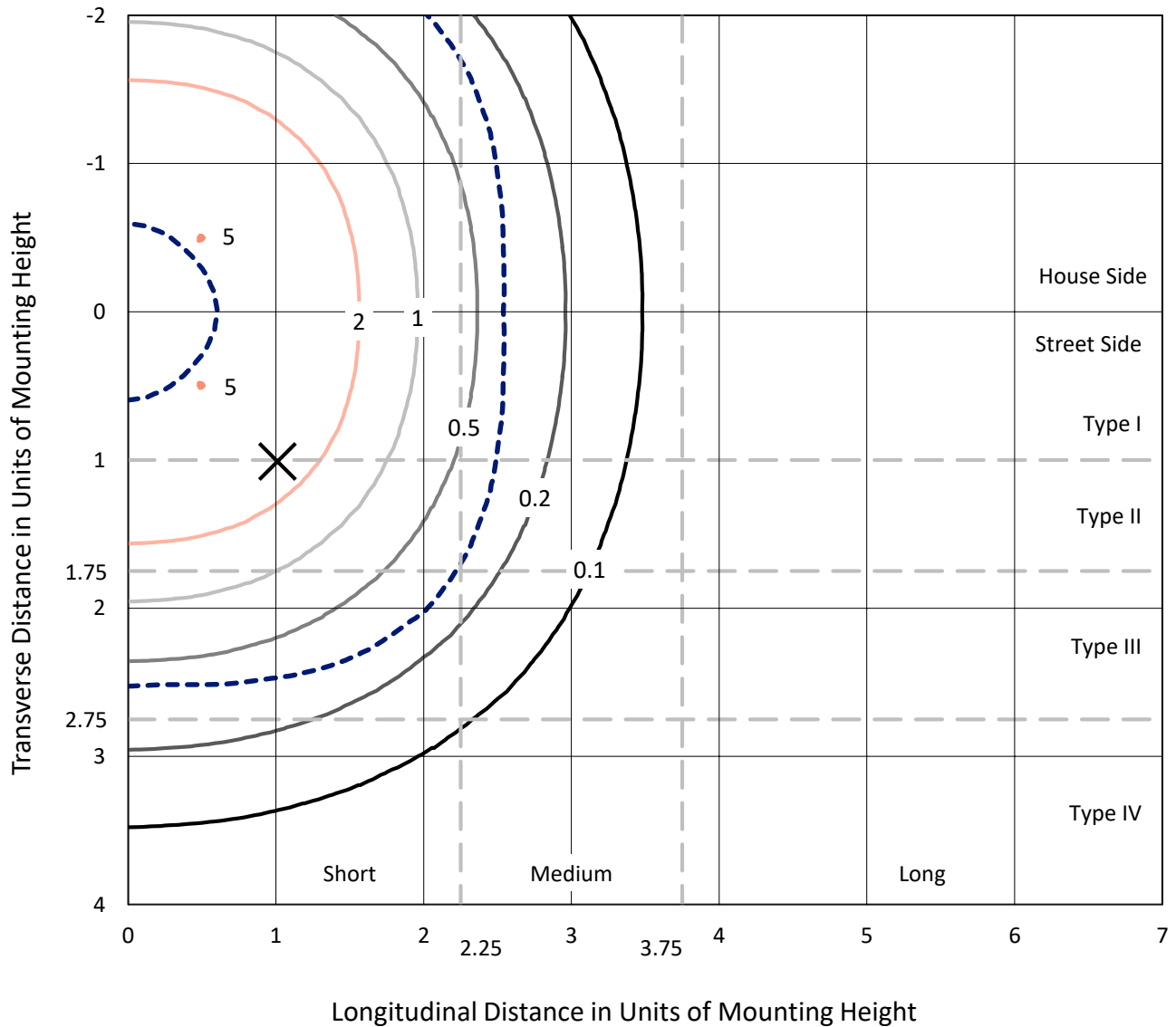
Input Watts (W): 75.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

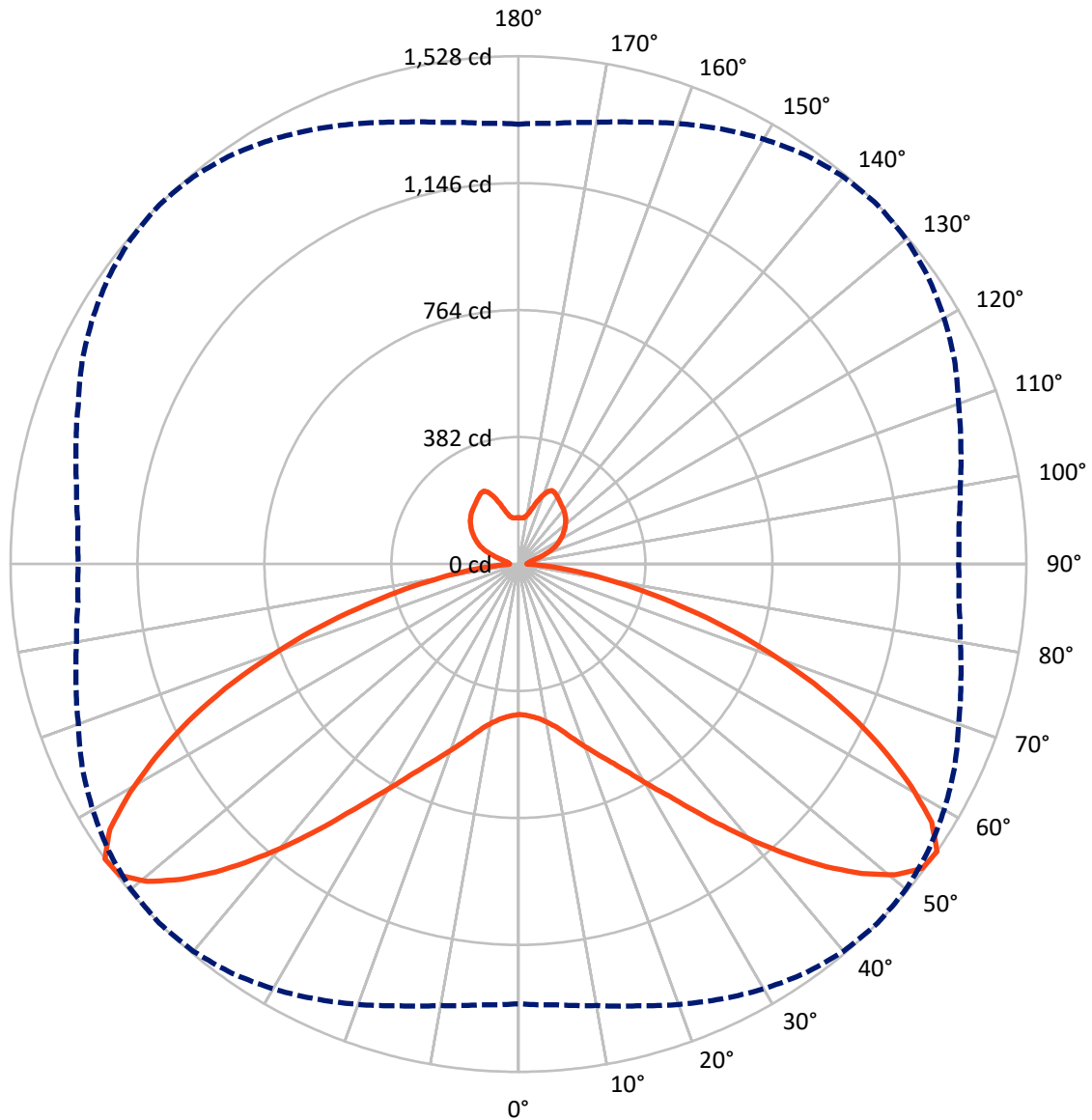
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

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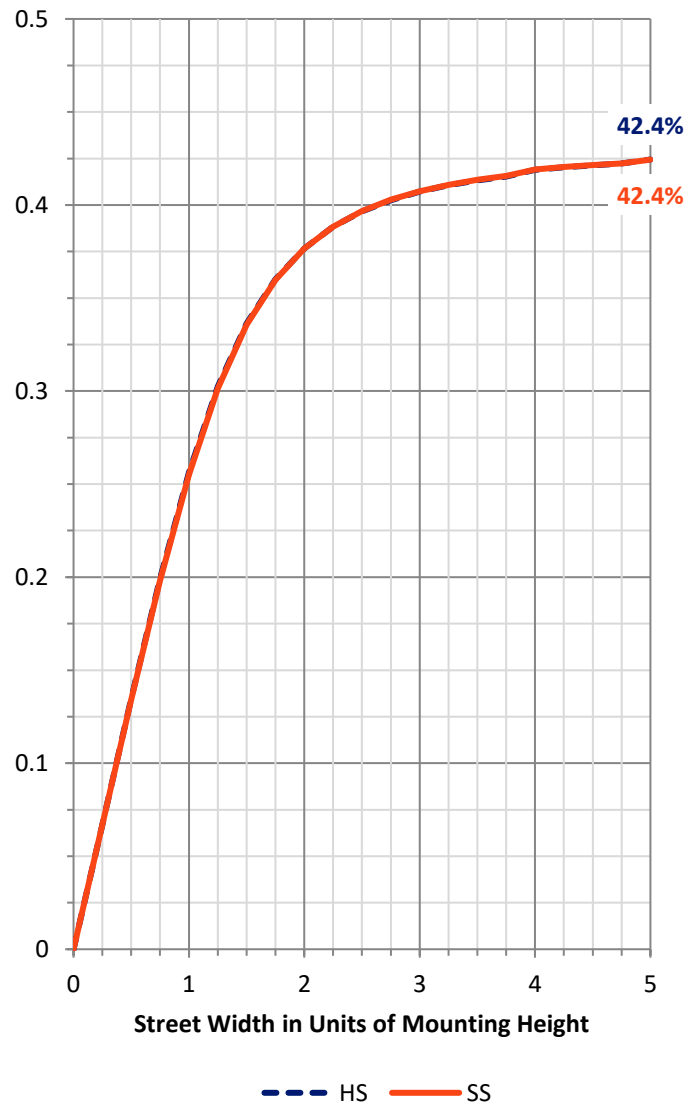
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2444.2	412.0	2856.1
	% Fixture	42.8	7.2	50.0
Street Side	Lumens	2444.2	412.0	2856.1
	% Fixture	42.8	7.2	50.0
Total	Lumens	4888.3	824.0	5712.3
	% Fixture	85.6	14.4	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.7	0.8
10°-20°	151.6	2.7
20°-30°	308.7	5.4
30°-40°	563.8	9.9
40°-50°	957.3	16.8
50°-60°	1246.7	21.8
60°-70°	1008.3	17.7
70°-80°	495.5	8.7
80°-90°	111.6	2.0
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°	4888.3	85.6
0°-180°	5712.3	100.0



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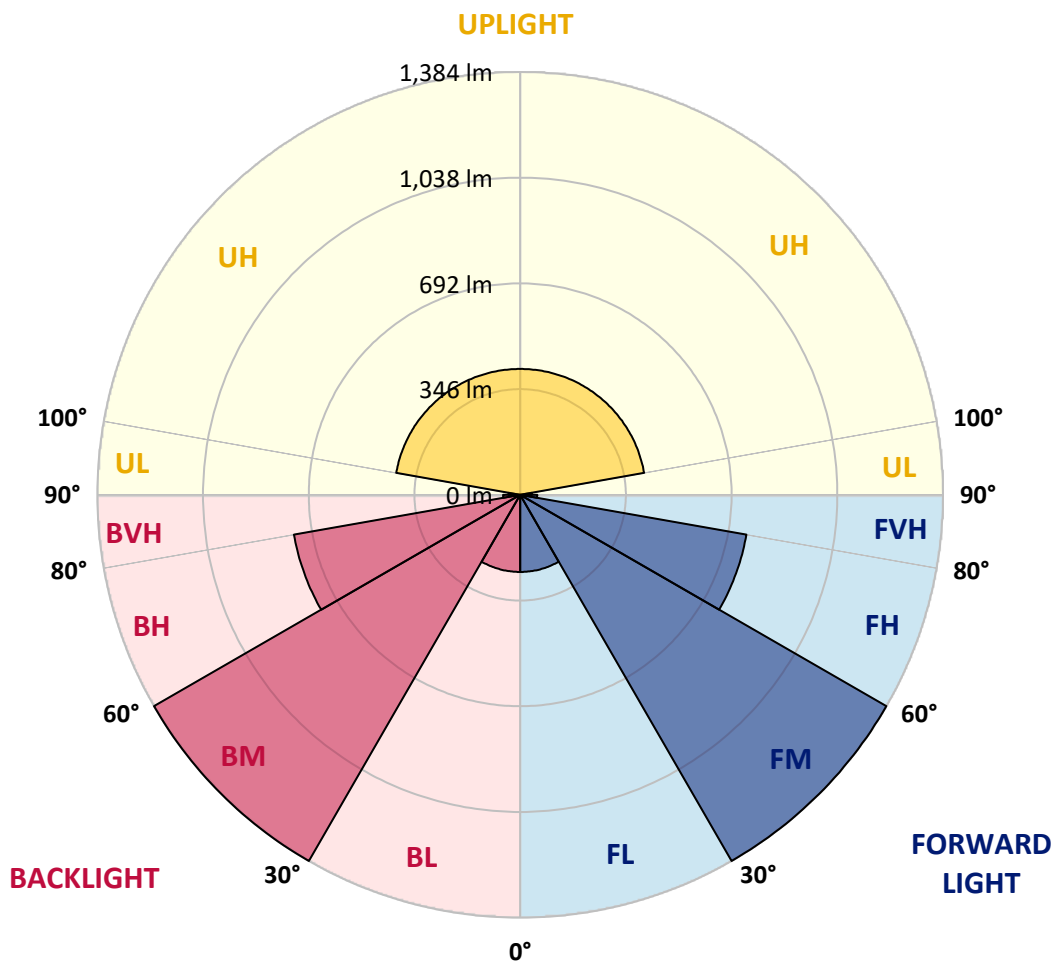
CATALOG NUMBER: TT-C4-LED-E1-WQ-SG-8030-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	252.5	4.4			
FM	(30°-60°)	1383.9	24.2			
FH	(60°-80°)	751.9	13.2			G1/1800
FVH	(80°-90°)	55.8	1.0			G1/100
BL	(0°-30°)	252.5	4.4	B1/500		
BM	(30°-60°)	1383.9	24.2	B2/2500		
BH	(60°-80°)	751.9	13.2	B2/1000		G1/1800
BVH	(80°-90°)	55.8	1.0			G1/100
UL	(90°-100°)	38.3	0.7		U2/50	
UH	(100°-180°)	412.0	7.2		U3/500	

BUG Rating: B2-U4-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5
2.5°	454.5	454.5	454.5	454.5	454.5	454.5	455.5	455.5	455.5	455.5	455.5
5°	460.5	460.5	460.5	461.5	461.5	461.5	461.5	461.5	461.5	461.5	461.5
7.5°	469.5	468.5	469.5	469.5	469.5	470.5	470.5	469.5	470.5	470.5	470.5
10°	482.5	481.5	482.5	482.5	482.5	483.5	483.5	483.5	483.5	484.5	484.5
12.5°	501.5	500.5	501.5	502.5	501.5	502.5	502.5	502.5	502.5	502.5	502.5
15°	525.5	524.5	525.5	526.5	525.5	527.5	527.5	526.5	526.5	527.5	527.5
17.5°	554.4	552.4	553.4	554.4	554.4	556.4	556.4	555.4	556.4	557.4	556.4
20°	584.4	582.4	583.4	586.4	586.4	587.4	589.4	588.4	589.4	590.4	589.4
22.5°	617.4	616.4	617.4	620.4	620.4	621.4	624.4	624.4	624.4	625.4	624.4
25°	653.3	652.3	653.3	656.3	656.3	658.3	662.3	662.3	663.3	664.3	663.3
27.5°	695.3	694.3	696.3	699.3	700.3	703.3	708.3	709.3	710.3	711.3	709.3
30°	744.2	742.2	745.2	750.2	752.2	756.2	762.2	764.2	765.2	768.2	766.2
32.5°	800.2	798.2	802.2	808.2	811.2	817.2	825.2	827.2	830.2	832.2	829.2
35°	866.1	865.1	869.1	878.1	883.1	890.1	901.1	904.1	906.1	910.1	906.1
37.5°	939.0	938.0	945.0	955.0	964.0	975.0	987.0	992.0	995.0	1000.0	995.0
40°	1020.0	1019.0	1028.0	1039.9	1050.9	1064.9	1079.9	1086.9	1092.9	1097.9	1091.9
42.5°	1102.9	1102.9	1113.9	1126.9	1142.8	1159.8	1176.8	1184.8	1194.8	1197.8	1190.8
45°	1182.8	1183.8	1194.8	1210.8	1233.7	1255.7	1274.7	1284.7	1295.7	1298.7	1289.7
47.5°	1258.7	1259.7	1269.7	1290.7	1316.7	1341.6	1364.6	1378.6	1389.6	1390.6	1383.6
50°	1320.7	1324.7	1337.6	1356.6	1383.6	1409.6	1437.5	1455.5	1466.5	1469.5	1462.5
52.5°	1344.6	1351.6	1366.6	1390.6	1421.6	1448.5	1479.5	1502.5	1515.5	1520.5	1514.5
55°	1322.7	1330.7	1348.6	1375.6	1409.6	1443.5	1475.5	1502.5	1520.5	1527.5	1521.5
57.5°	1273.7	1274.7	1292.7	1319.7	1350.6	1385.6	1416.6	1441.5	1458.5	1465.5	1464.5
60°	1188.8	1188.8	1205.8	1231.8	1255.7	1291.7	1317.7	1336.6	1348.6	1356.6	1354.6
62.5°	1074.9	1074.9	1089.9	1116.9	1140.8	1171.8	1196.8	1216.8	1224.8	1233.7	1235.7
65°	948.0	948.0	962.0	989.0	1011.0	1038.9	1062.9	1081.9	1089.9	1100.9	1098.9
67.5°	813.2	812.2	825.2	848.1	869.1	895.1	918.1	936.1	945.0	958.0	949.0
70°	674.3	674.3	685.3	703.3	718.3	744.2	766.2	784.2	791.2	802.2	797.2
72.5°	542.5	541.5	550.4	564.4	576.4	599.4	612.4	632.4	638.4	653.3	645.3
75°	423.6	421.6	428.6	438.6	446.5	461.5	471.5	487.5	492.5	502.5	498.5
77.5°	318.7	317.7	320.7	327.7	333.7	345.6	349.6	357.6	361.6	371.6	363.6
80°	228.8	225.8	228.8	232.8	234.8	243.8	244.8	247.7	249.7	256.7	248.7
82.5°	153.8	149.8	151.8	154.8	154.8	159.8	160.8	159.8	163.8	165.8	161.8
85°	87.9	84.9	85.9	87.9	86.9	89.9	89.9	88.9	91.9	91.9	89.9
87.5°	29.0	27.0	28.0	29.0	29.0	30.0	31.0	30.0	32.0	32.0	30.0
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
110°	86.0	86.0	87.0	89.0	86.0	85.0	85.0	86.0	86.0	87.0	86.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
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°	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5
2.5°	455.5	455.5	455.5	455.5	455.5	455.5	455.5	455.5
5°	461.5	461.5	461.5	461.5	461.5	460.5	460.5	460.5
7.5°	470.5	470.5	470.5	470.5	470.5	469.5	469.5	469.5
10°	484.5	483.5	483.5	483.5	483.5	482.5	483.5	482.5
12.5°	502.5	503.5	503.5	502.5	503.5	501.5	501.5	501.5
15°	527.5	526.5	526.5	526.5	526.5	525.5	525.5	525.5
17.5°	555.4	555.4	554.4	554.4	553.4	552.4	552.4	552.4
20°	588.4	587.4	586.4	585.4	584.4	582.4	581.4	581.4
22.5°	622.4	621.4	620.4	619.4	618.4	616.4	614.4	614.4
25°	660.3	658.3	657.3	655.3	653.3	651.3	650.3	649.3
27.5°	706.3	704.3	701.3	698.3	694.3	693.3	691.3	691.3
30°	761.2	758.2	754.2	749.2	745.2	741.2	739.3	738.3
32.5°	825.2	821.2	814.2	808.2	801.2	797.2	794.2	792.2
35°	900.1	894.1	886.1	877.1	868.1	861.1	856.1	856.1
37.5°	988.0	979.0	967.0	956.0	943.0	935.1	929.1	925.1
40°	1083.9	1070.9	1055.9	1041.9	1027.0	1016.0	1007.0	1008.0
42.5°	1178.8	1167.8	1149.8	1132.9	1113.9	1098.9	1087.9	1086.9
45°	1278.7	1264.7	1242.7	1220.8	1198.8	1180.8	1167.8	1165.8
47.5°	1371.6	1356.6	1330.7	1303.7	1279.7	1259.7	1245.7	1243.7
50°	1447.5	1429.6	1402.6	1373.6	1347.6	1325.7	1310.7	1306.7
52.5°	1496.5	1476.5	1447.5	1412.6	1384.6	1359.6	1341.6	1336.6
55°	1504.5	1478.5	1447.5	1408.6	1377.6	1349.6	1329.7	1323.7
57.5°	1449.5	1421.6	1393.6	1359.6	1328.7	1298.7	1282.7	1274.7
60°	1342.6	1320.7	1297.7	1266.7	1241.7	1213.8	1200.8	1196.8
62.5°	1219.8	1200.8	1179.8	1147.8	1126.9	1101.9	1089.9	1084.9
65°	1087.9	1065.9	1045.9	1020.0	997.0	976.0	959.0	957.0
67.5°	942.0	919.1	902.1	879.1	856.1	836.2	825.2	819.2
70°	788.2	769.2	752.2	727.3	712.3	693.3	685.3	679.3
72.5°	635.4	624.4	603.4	587.4	570.4	555.4	550.4	544.4
75°	491.5	478.5	462.5	452.5	439.6	431.6	427.6	423.6
77.5°	360.6	349.6	340.7	336.7	330.7	322.7	319.7	316.7
80°	249.7	244.8	238.8	237.8	233.8	227.8	226.8	225.8
82.5°	161.8	158.8	156.8	156.8	154.8	150.8	149.8	149.8
85°	89.9	88.9	89.9	88.9	86.9	84.9	84.9	84.9
87.5°	30.0	30.0	31.0	32.0	29.0	29.0	28.0	28.0
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
110°	84.0	83.0	84.0	81.0	78.0	76.0	74.0	75.0



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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
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)