

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: P198475

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198475
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-C4-LED-E1-WQ-SG-LWR-LW-8030-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
WIDE DISTRIBUTION WITH SOFTENING GLASS LENS AND LumaWatt WIRELESS SENSOR
Light Source: (160) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5353.3 lumens
Efficiency: N/A
Efficacy: 71.0 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



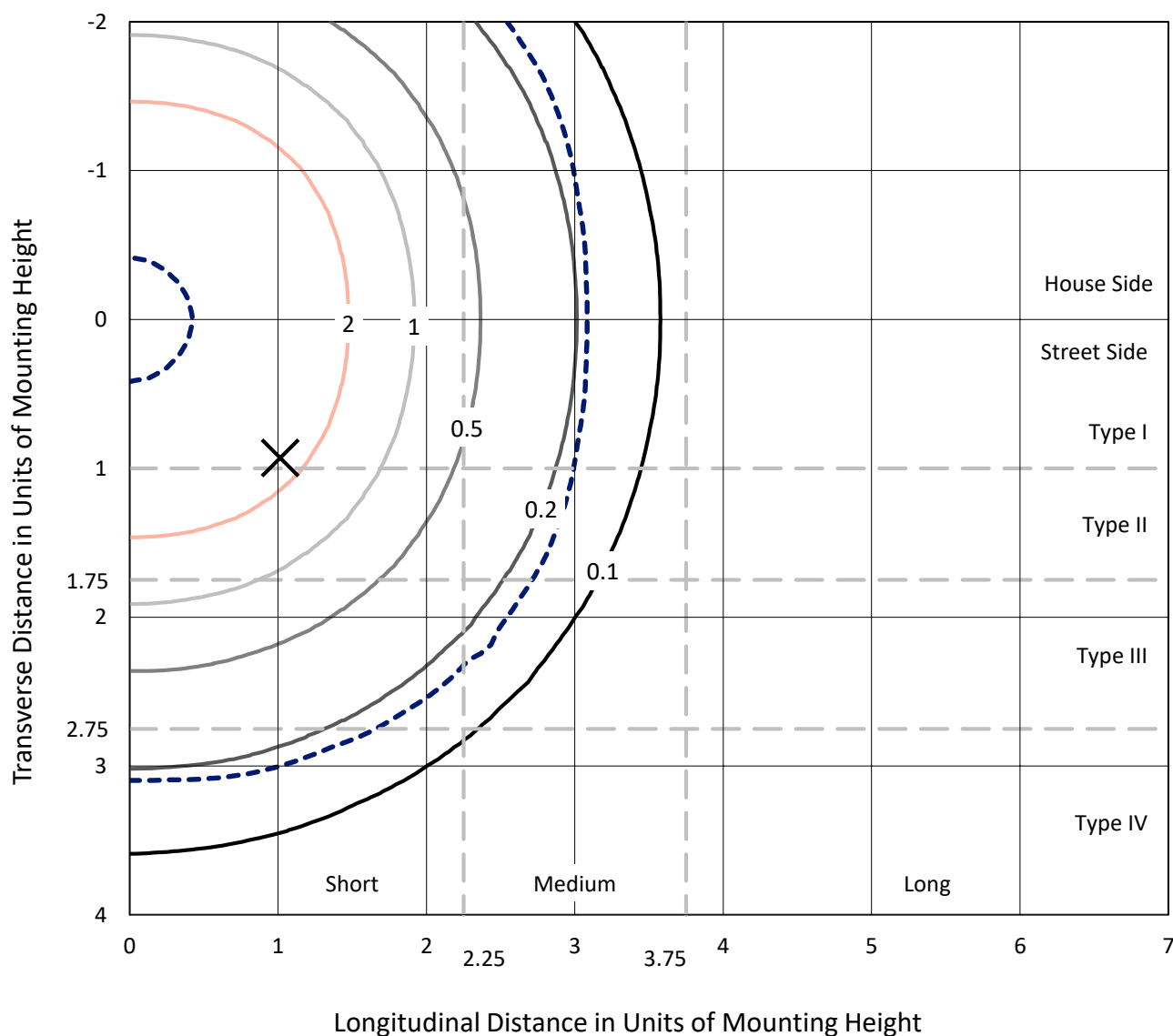
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

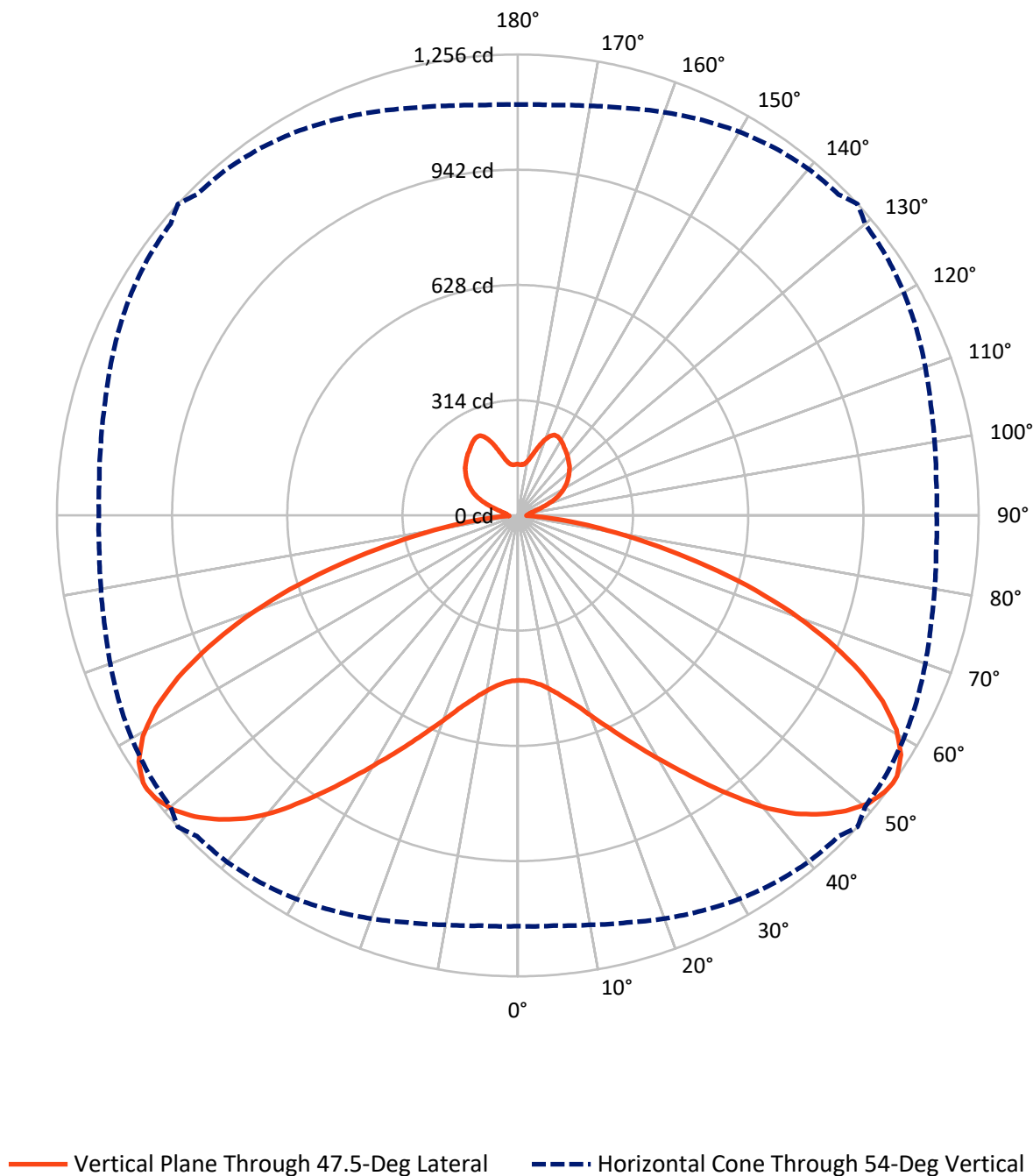


Based on 10 foot mounting height. Maximum calculated value = 5 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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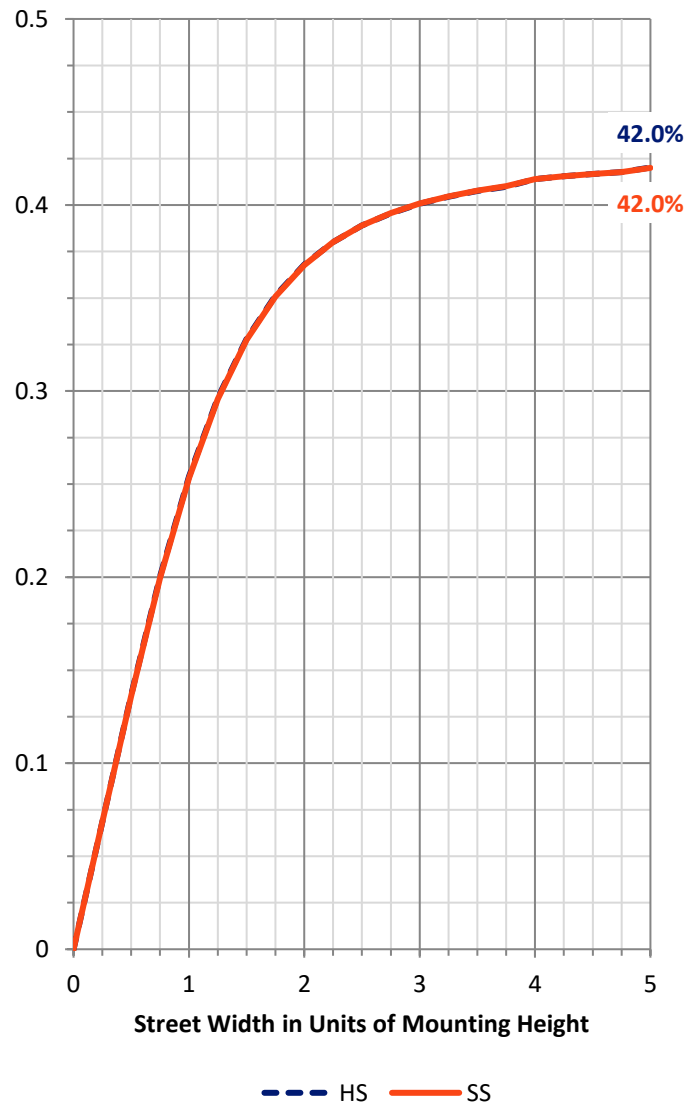
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2264.7	412.0	2676.7
	% Fixture	42.3	7.7	50.0
Street Side	Lumens	2264.7	412.0	2676.7
	% Fixture	42.3	7.7	50.0
Total	Lumens	4529.4	824.0	5353.3
	% Fixture	84.6	15.4	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.4	0.8
10°-20°	150.4	2.8
20°-30°	309.6	5.8
30°-40°	553.7	10.3
40°-50°	849.5	15.9
50°-60°	1047.4	19.6
60°-70°	947.5	17.7
70°-80°	521.7	9.7
80°-90°	105.3	2.0
90°-100°	38.3	0.7
100°-110°	59.4	1.1
110°-120°	119.3	2.2
120°-130°	148.7	2.8
130°-140°	153.2	2.9
140°-150°	136.0	2.5
150°-160°	103.7	1.9
160°-170°	51.8	1.0
170°-180°	13.6	0.3
0°-90°	4529.4	84.6
0°-180°	5353.3	100.0

Coefficient of Utilization



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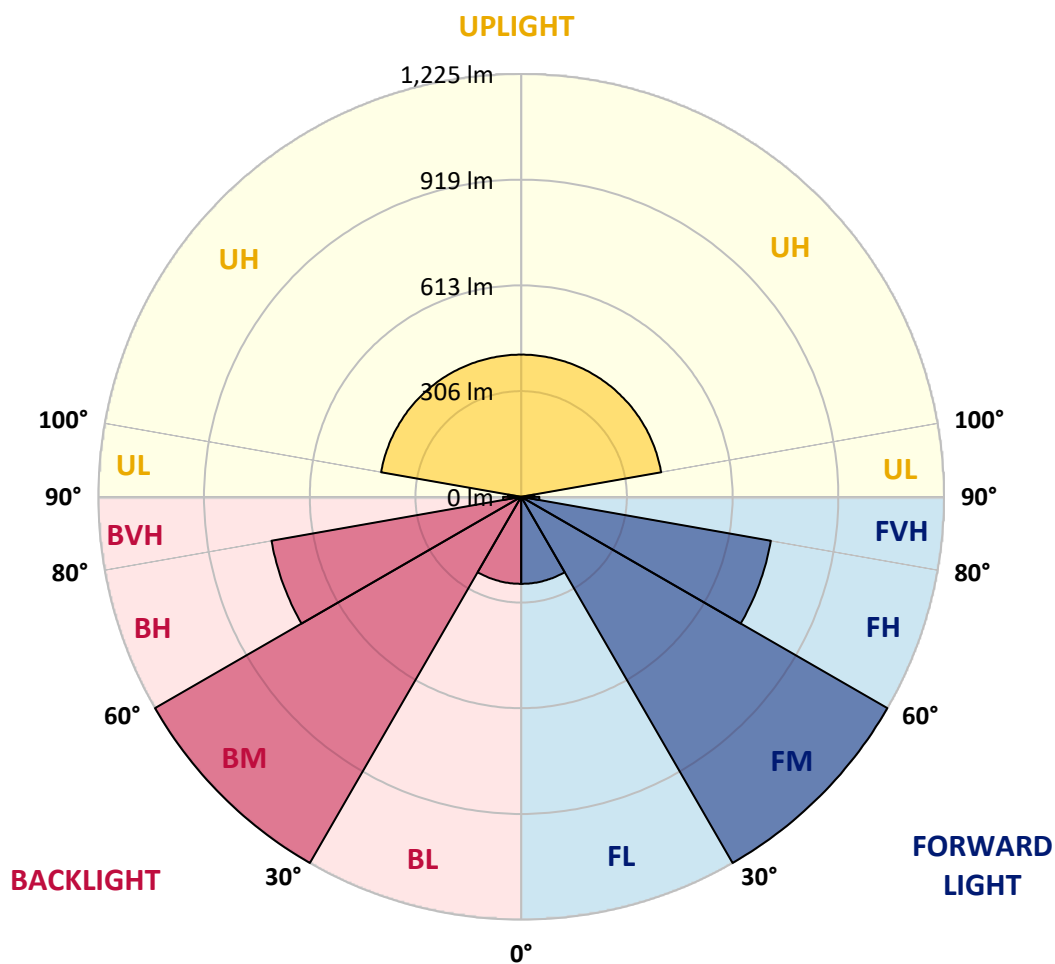
CATALOG NUMBER: TT-C4-LED-E1-WQ-SG-LWR-LW-8030-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	252.2	4.7			
FM	(30°-60°)	1225.3	22.9			
FH	(60°-80°)	734.6	13.7			G1/1800
FVH	(80°-90°)	52.6	1.0			G1/100
BL	(0°-30°)	252.2	4.7	B1/500		
BM	(30°-60°)	1225.3	22.9	B2/2500		
BH	(60°-80°)	734.6	13.7	B2/1000		G1/1800
BVH	(80°-90°)	52.6	1.0			G1/100
UL	(90°-100°)	38.3	0.7		U2/50	
UH	(100°-180°)	412.0	7.7		U3/500	

BUG Rating: B2-U4-G1

Type V Short



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

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	449.3	449.3	449.3	449.3	449.3	449.3	449.3	449.3	449.3	449.3	449.3
2.5°	451.3	451.3	451.3	451.3	451.3	451.3	451.3	451.3	451.3	451.3	451.3
5°	457.1	457.1	457.1	458.1	457.1	457.1	457.1	457.1	457.1	457.1	457.1
7.5°	466.9	466.9	466.9	466.9	466.9	466.9	465.9	465.9	466.9	465.9	466.9
10°	480.6	479.6	479.6	480.6	480.6	479.6	480.6	480.6	480.6	480.6	481.5
12.5°	498.1	498.1	499.1	499.1	499.1	500.1	500.1	499.1	500.1	500.1	500.1
15°	521.6	521.6	521.6	521.6	522.6	523.5	522.6	522.6	521.6	521.6	523.5
17.5°	548.9	548.9	548.9	548.9	550.9	550.9	549.9	550.9	551.9	551.9	550.9
20°	582.1	581.2	580.2	581.2	583.1	583.1	584.1	585.1	585.1	585.1	587.0
22.5°	617.3	616.3	618.3	619.3	620.2	621.2	621.2	622.2	624.1	623.2	626.1
25°	656.4	655.4	656.4	658.3	662.2	662.2	663.2	665.2	665.2	664.2	671.0
27.5°	700.3	700.3	701.3	705.2	706.2	707.2	710.1	712.0	715.0	715.0	720.8
30°	748.2	747.2	749.2	753.1	756.0	758.9	762.8	767.7	768.7	769.7	775.5
32.5°	797.0	797.0	799.0	805.8	810.7	815.6	821.4	826.3	828.3	828.3	837.1
35°	848.8	849.8	854.7	859.5	869.3	875.2	881.0	887.9	891.8	893.7	905.4
37.5°	903.5	906.4	910.3	917.2	926.9	936.7	945.5	956.2	962.1	964.0	976.7
40°	955.3	959.2	965.0	974.8	984.6	998.2	1009.0	1019.7	1026.6	1030.5	1050.0
42.5°	1006.0	1008.0	1014.8	1025.6	1038.3	1051.0	1065.6	1077.4	1084.2	1090.0	1111.5
45°	1046.1	1048.0	1056.8	1069.5	1084.2	1099.8	1114.5	1128.1	1135.0	1139.9	1161.4
47.5°	1079.3	1083.2	1093.0	1105.7	1120.3	1138.9	1155.5	1169.2	1178.0	1180.9	1203.4
50°	1103.7	1109.6	1118.4	1133.0	1150.6	1169.2	1186.7	1201.4	1211.2	1215.1	1235.6
52.5°	1117.4	1122.3	1132.0	1146.7	1167.2	1185.8	1204.3	1219.0	1229.7	1233.6	1252.2
54°	1119.4	1122.3	1133.0	1148.7	1169.2	1188.7	1207.3	1221.9	1232.7	1236.6	1256.1
55°	1117.4	1119.4	1131.1	1145.7	1167.2	1186.7	1205.3	1220.0	1231.7	1235.6	1254.1
57.5°	1097.9	1100.8	1110.6	1126.2	1145.7	1168.2	1185.8	1200.4	1212.1	1214.1	1231.7
60°	1057.8	1061.7	1070.5	1087.1	1106.7	1126.2	1143.8	1156.5	1167.2	1173.1	1185.8
62.5°	1000.2	1002.1	1010.9	1025.6	1043.2	1063.7	1077.4	1090.0	1099.8	1105.7	1116.4
65°	918.1	926.9	933.8	945.5	959.2	975.8	993.4	1003.1	1008.0	1017.8	1025.6
67.5°	826.3	832.2	839.0	849.8	858.6	869.3	885.9	894.7	900.6	907.4	914.2
70°	723.8	721.8	729.6	735.5	745.3	752.1	762.8	767.7	774.6	778.5	790.2
72.5°	601.7	604.6	611.4	618.3	621.2	623.2	632.0	634.9	640.7	638.8	653.4
75°	491.3	486.4	488.4	489.4	491.3	489.4	495.2	498.1	501.1	498.1	506.0
77.5°	371.2	365.3	367.3	366.3	366.3	364.3	363.3	363.3	364.3	362.4	367.3
80°	255.9	253.0	254.0	255.9	251.0	252.0	246.1	246.1	246.1	246.1	248.1
82.5°	158.2	154.3	153.3	154.3	154.3	151.4	152.4	148.5	147.5	146.5	155.3
85°	77.2	75.2	77.2	75.2	74.2	74.2	72.3	73.3	71.3	70.3	76.2
87.5°	20.5	19.5	19.5	19.5	18.6	19.5	19.5	19.5	19.5	20.5	23.4
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	32.5
100°	45.0	45.0	45.0	44.0	42.0	40.0	39.0	38.0	36.0	36.0	35.5
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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CATALOG NUMBER: TT-C4-LED-E1-WQ-SG-LWR-LW-8030-UPL

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
110°	86.0	86.0	87.0	89.0	86.0	85.0	85.0	86.0	86.0	87.0	86.5
112.5°	101.0	102.0	104.0	108.0	106.0	107.0	107.0	110.0	108.0	107.0	105.0
115°	121.0	122.0	123.0	128.0	126.0	128.0	127.0	129.0	126.0	124.0	122.0
117.5°	140.0	141.0	141.0	144.0	141.0	141.0	140.0	141.0	138.0	136.0	135.5
120°	152.0	153.0	154.0	155.0	151.0	149.0	147.0	149.0	147.0	147.0	147.5
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	167.5
127.5°	177.0	177.0	179.0	181.0	177.0	171.0	170.0	176.0	177.0	178.0	176.5
130°	187.0	188.0	190.0	191.0	185.0	179.0	179.0	186.0	187.0	186.0	184.5
132.5°	198.0	199.0	200.0	201.0	193.0	186.0	187.0	193.0	195.0	195.0	193.0
135°	210.0	210.0	211.0	209.0	199.0	192.0	193.0	199.0	202.0	201.0	199.0
137.5°	221.0	219.0	217.0	213.0	203.0	197.0	198.0	205.0	207.0	208.0	205.5
140°	229.0	226.0	222.0	216.0	205.0	200.0	201.0	207.0	210.0	213.0	212.5
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	224.0
147.5°	230.0	227.0	223.0	219.0	210.0	207.0	209.0	216.0	220.0	229.0	231.0
150°	224.0	221.0	219.0	220.0	215.0	214.0	216.0	222.0	227.0	235.0	237.0
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	241.0
157.5°	203.0	203.0	207.0	216.0	220.0	224.0	229.0	234.0	232.0	235.0	232.5
160°	199.0	198.0	203.0	210.0	212.0	213.0	216.0	219.0	216.0	219.0	217.5
162.5°	185.0	184.0	188.0	193.0	194.0	193.0	196.0	198.0	195.0	198.0	197.0
165°	169.0	167.0	169.0	173.0	173.0	173.0	175.0	176.0	174.0	177.0	176.0
167.5°	154.0	152.0	153.0	156.0	156.0	155.0	157.0	159.0	157.0	159.0	158.5
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	140.5
175°	136.0	134.0	135.0	137.0	137.0	137.0	138.0	139.0	138.0	139.0	138.5
177.5°	137.0	136.0	136.0	139.0	138.0	138.0	139.0	140.0	139.0	139.0	138.5
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°
0°	449.3	449.3	449.3	449.3	449.3	449.3	449.3	449.3	449.3
2.5°	451.3	451.3	451.3	451.3	451.3	451.3	451.3	451.3	450.3
5°	457.1	457.1	457.1	457.1	457.1	457.1	457.1	457.1	457.1
7.5°	466.9	466.9	465.9	465.9	465.9	465.9	465.9	465.9	465.9
10°	480.6	481.5	479.6	479.6	480.6	479.6	479.6	478.6	478.6
12.5°	500.1	499.1	500.1	500.1	499.1	498.1	497.2	496.2	497.2
15°	522.6	521.6	521.6	521.6	520.6	520.6	519.6	520.6	519.6
17.5°	549.9	549.9	550.9	548.0	548.9	547.0	547.0	547.0	546.0
20°	585.1	584.1	583.1	580.2	581.2	579.2	578.2	577.3	576.3
22.5°	623.2	621.2	620.2	617.3	618.3	616.3	613.4	611.4	611.4
25°	665.2	663.2	661.3	660.3	659.3	655.4	653.4	650.5	652.5
27.5°	715.0	711.1	708.1	704.2	705.2	700.3	698.4	696.4	696.4
30°	768.7	765.8	760.9	758.0	757.0	752.1	748.2	746.2	745.3
32.5°	827.3	825.4	822.4	817.5	815.6	807.8	804.8	801.9	800.9
35°	896.7	891.8	888.8	882.0	875.2	870.3	863.4	861.5	859.5
37.5°	961.1	961.1	956.2	948.4	938.7	931.8	926.0	922.0	919.1
40°	1029.5	1027.5	1019.7	1012.9	1003.1	993.4	982.6	978.7	976.7
42.5°	1090.0	1086.1	1078.3	1069.5	1059.8	1048.0	1036.3	1030.5	1029.5
45°	1140.8	1136.0	1128.1	1116.4	1103.7	1092.0	1081.3	1075.4	1072.5
47.5°	1181.9	1176.0	1166.2	1155.5	1140.8	1127.2	1116.4	1110.6	1106.7
50°	1212.1	1207.3	1196.5	1182.8	1168.2	1152.6	1141.8	1135.0	1132.0
52.5°	1231.7	1224.8	1213.1	1198.5	1181.9	1166.2	1153.5	1145.7	1142.8
54°	1235.6	1227.8	1215.1	1199.4	1181.9	1165.3	1153.5	1144.7	1141.8
55°	1233.6	1225.8	1212.1	1197.5	1178.9	1162.3	1149.6	1140.8	1137.9
57.5°	1213.1	1204.3	1191.6	1176.0	1156.5	1139.9	1128.1	1118.4	1115.4
60°	1169.2	1161.4	1146.7	1133.0	1113.5	1096.9	1084.2	1074.4	1071.5
62.5°	1101.8	1094.9	1082.2	1068.6	1048.0	1033.4	1020.7	1014.8	1007.0
65°	1011.9	1007.0	994.3	977.7	963.1	948.4	935.7	931.8	926.9
67.5°	904.5	897.6	892.7	876.1	864.4	850.7	838.0	830.2	828.3
70°	777.5	774.6	769.7	754.0	747.2	735.5	726.7	719.9	717.9
72.5°	640.7	637.8	636.8	629.0	620.2	609.5	605.6	599.7	598.7
75°	498.1	496.2	498.1	492.3	489.4	486.4	484.5	484.5	481.5
77.5°	360.4	363.3	364.3	364.3	366.3	366.3	368.2	365.3	362.4
80°	245.2	248.1	247.1	249.1	248.1	254.9	250.0	254.0	250.0
82.5°	147.5	151.4	151.4	151.4	155.3	154.3	154.3	156.3	155.3
85°	72.3	73.3	72.3	71.3	76.2	75.2	75.2	74.2	75.2
87.5°	21.5	19.5	20.5	18.6	20.5	17.6	19.5	19.5	20.5
90°	26.0	28.0	30.0	32.0	33.0	34.0	34.0	34.0	34.0
92.5°	27.0	28.0	30.0	32.0	33.0	35.0	36.0	36.0	36.0
95°	30.0	30.0	32.0	34.0	35.0	37.0	38.0	39.0	38.0
97.5°	32.0	33.0	34.0	34.0	35.0	36.0	36.0	36.0	36.0
100°	35.0	36.0	37.0	38.0	38.0	38.0	38.0	37.0	37.0
102.5°	42.0	43.0	44.0	44.0	42.0	42.0	41.0	41.0	41.0
105°	52.0	54.0	54.0	53.0	51.0	49.0	48.0	48.0	49.0
107.5°	68.0	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-SG-LWR-LW-8030-UPL

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°
110°	86.0	84.0	83.0	84.0	81.0	78.0	76.0	74.0	75.0
112.5°	103.0	102.0	102.0	105.0	103.0	100.0	98.0	95.0	94.0
115°	120.0	121.0	123.0	125.0	124.0	123.0	121.0	116.0	113.0
117.5°	135.0	138.0	140.0	141.0	139.0	139.0	139.0	133.0	129.0
120°	148.0	150.0	151.0	153.0	148.0	148.0	148.0	145.0	142.0
122.5°	158.0	159.0	160.0	162.0	156.0	155.0	156.0	153.0	150.0
125°	167.0	167.0	167.0	168.0	164.0	163.0	164.0	160.0	158.0
127.5°	175.0	176.0	175.0	175.0	173.0	173.0	173.0	166.0	163.0
130°	183.0	183.0	182.0	183.0	181.0	184.0	181.0	171.0	169.0
132.5°	191.0	190.0	189.0	192.0	189.0	192.0	190.0	179.0	176.0
135°	197.0	196.0	197.0	201.0	199.0	199.0	195.0	185.0	184.0
137.5°	203.0	203.0	205.0	210.0	207.0	204.0	198.0	191.0	190.0
140°	212.0	212.0	214.0	217.0	214.0	209.0	202.0	195.0	195.0
142.5°	218.0	220.0	222.0	223.0	217.0	211.0	204.0	198.0	198.0
145°	225.0	230.0	230.0	227.0	217.0	211.0	205.0	201.0	202.0
147.5°	233.0	239.0	236.0	229.0	218.0	212.0	207.0	204.0	206.0
150°	239.0	242.0	240.0	232.0	220.0	214.0	211.0	210.0	211.0
152.5°	241.0	242.0	241.0	235.0	223.0	219.0	217.0	215.0	216.0
155°	239.0	238.0	237.0	234.0	227.0	224.0	223.0	220.0	219.0
157.5°	230.0	228.0	229.0	229.0	226.0	226.0	225.0	222.0	219.0
160°	216.0	215.0	217.0	219.0	219.0	221.0	222.0	218.0	215.0
162.5°	196.0	196.0	199.0	200.0	201.0	204.0	208.0	207.0	207.0
165°	175.0	176.0	179.0	181.0	181.0	185.0	189.0	190.0	192.0
167.5°	158.0	160.0	163.0	165.0	164.0	168.0	171.0	172.0	174.0
170°	147.0	148.0	150.0	152.0	152.0	155.0	158.0	159.0	160.0
172.5°	140.0	141.0	144.0	145.0	144.0	146.0	149.0	149.0	151.0
175°	138.0	138.0	140.0	141.0	140.0	141.0	143.0	143.0	144.0
177.5°	138.0	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	140.0

(END OF REPORT)