

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: P198476

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198476
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-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
WIDE DISTRIBUTION WITH SOFTENING GLASS LENS AND LumaWatt WIRELESS SENSOR
Light Source: (160) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6828.3 lumens
Efficiency: N/A
Efficacy: 90.6 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

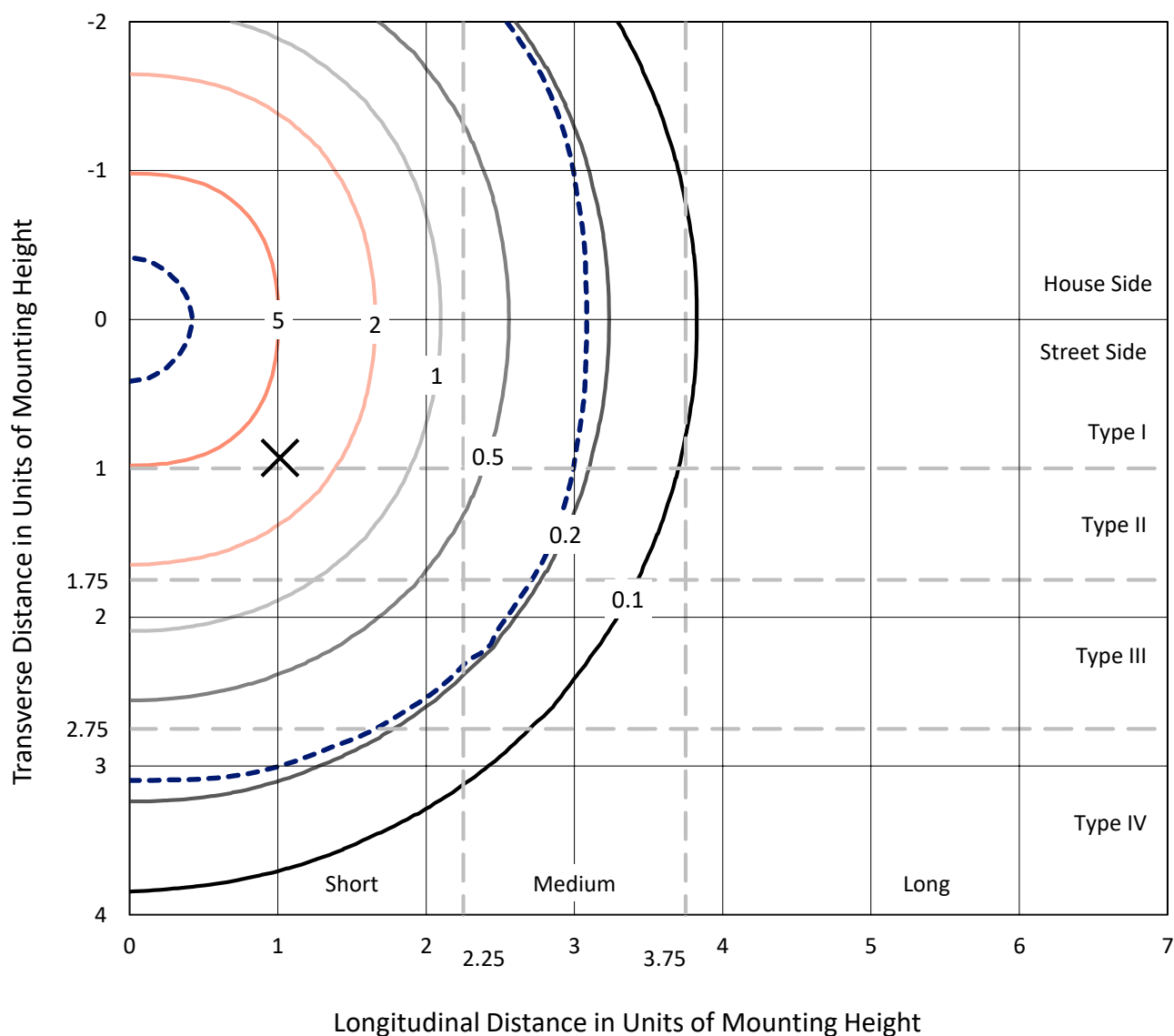


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

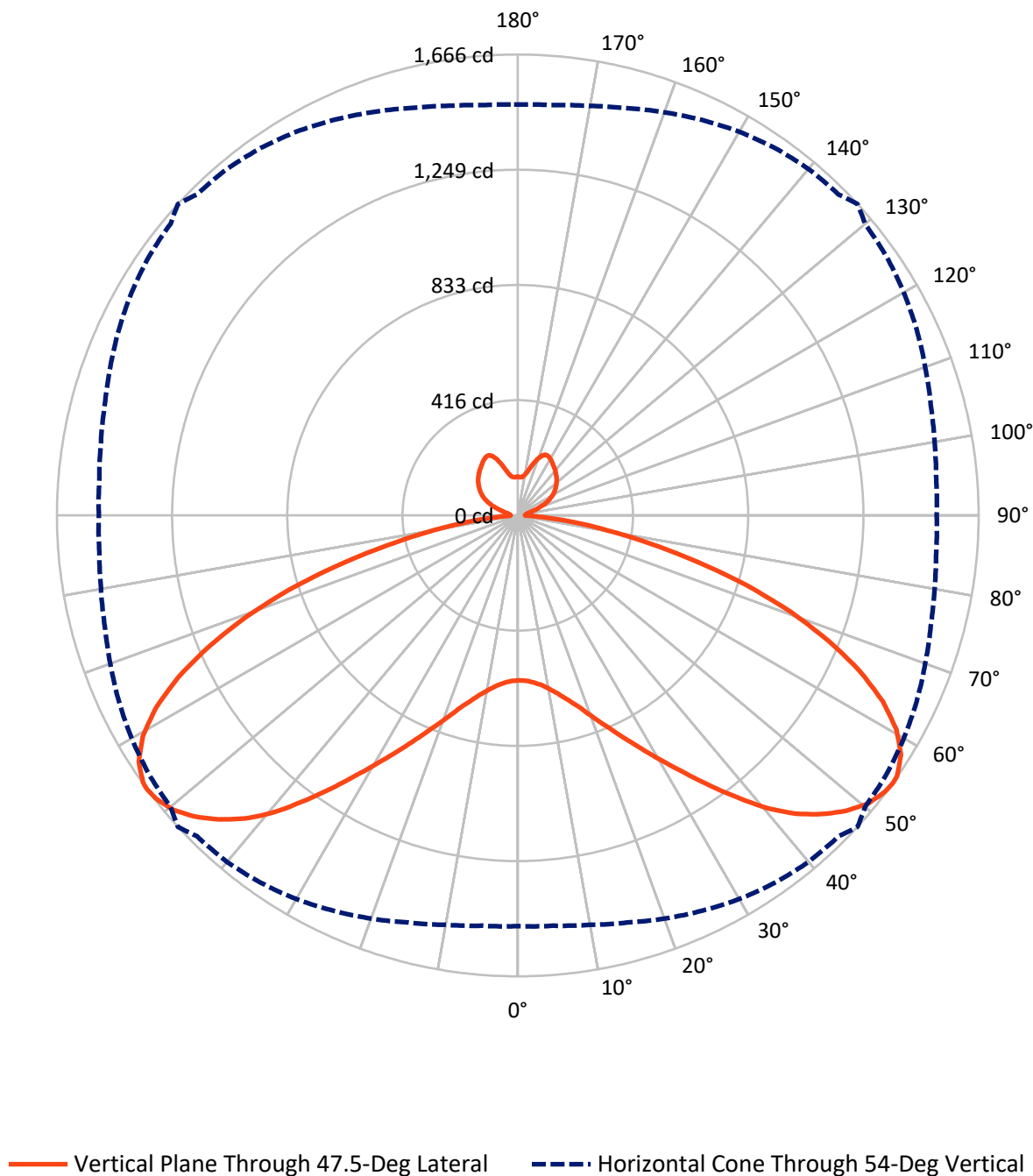


Based on 10 foot mounting height. Maximum calculated value = 6.6 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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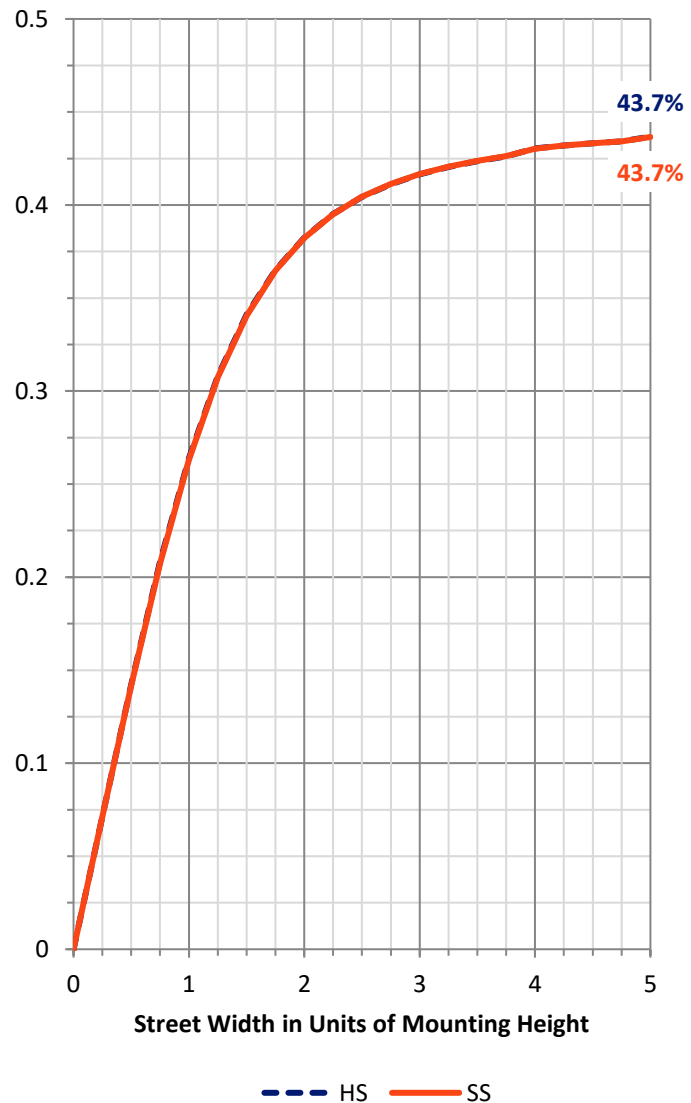
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3002.1	412.0	3414.1
	% Fixture	44.0	6.0	50.0
Street Side	Lumens	3002.1	412.0	3414.1
	% Fixture	44.0	6.0	50.0
Total	Lumens	6004.3	824.0	6828.3
	% Fixture	87.9	12.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.8	0.9
10°-20°	199.4	2.9
20°-30°	410.5	6.0
30°-40°	734.1	10.8
40°-50°	1126.4	16.5
50°-60°	1388.7	20.3
60°-70°	1256.4	18.4
70°-80°	691.8	10.1
80°-90°	138.2	2.0
90°-100°	38.3	0.6
100°-110°	59.4	0.9
110°-120°	119.3	1.7
120°-130°	148.7	2.2
130°-140°	153.2	2.2
140°-150°	136.0	2.0
150°-160°	103.7	1.5
160°-170°	51.8	0.8
170°-180°	13.6	0.2
0°-90°	6004.3	87.9
0°-180°	6828.3	100.0

Coefficient of Utilization



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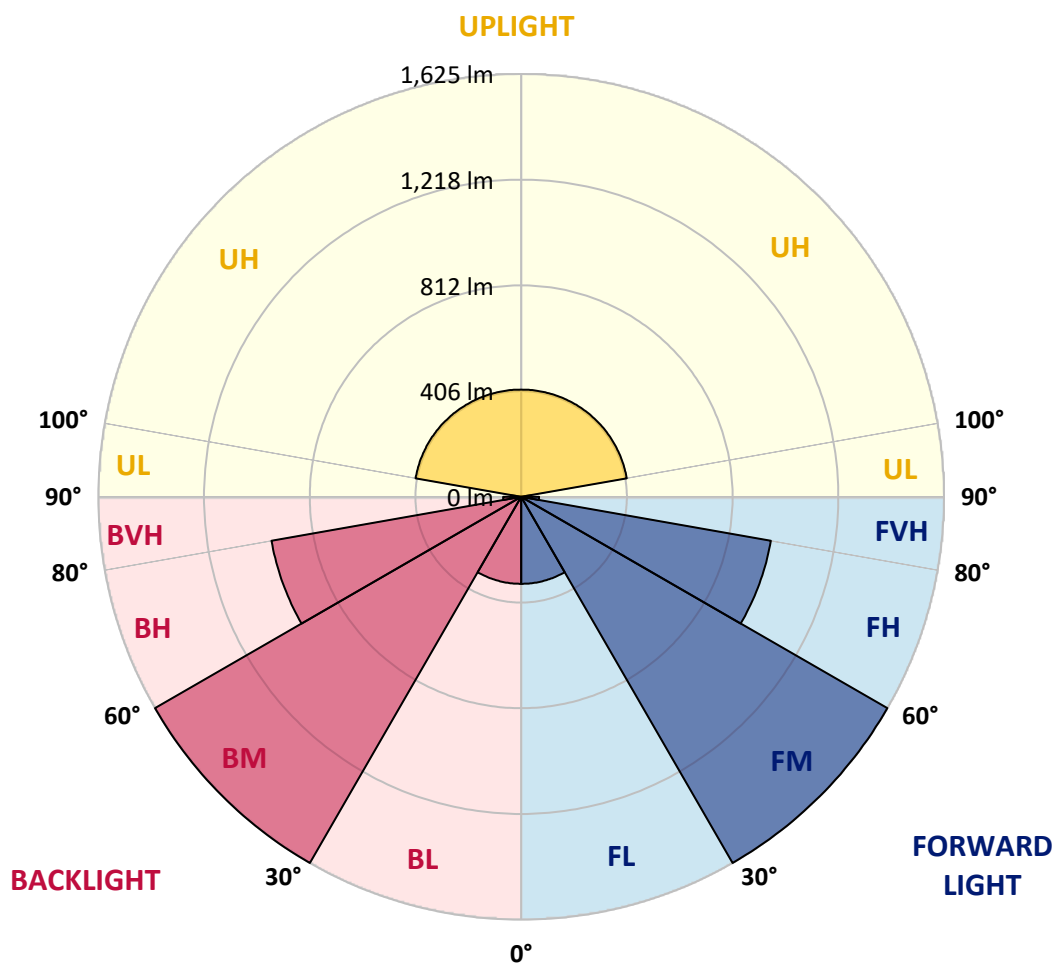
CATALOG NUMBER: TT-C4-LED-E1-WQ-SG-LWR-LW-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	334.4	4.9			
FM	(30°-60°)	1624.6	23.8			
FH	(60°-80°)	974.1	14.3			G1/1800
FVH	(80°-90°)	69.1	1.0			G1/100
BL	(0°-30°)	334.4	4.9	B1/500		
BM	(30°-60°)	1624.6	23.8	B2/2500		
BH	(60°-80°)	974.1	14.3	B2/1000		G1/1800
BVH	(80°-90°)	69.1	1.0			G1/100
UL	(90°-100°)	38.3	0.6		U2/50	
UH	(100°-180°)	412.0	6.0		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°	47.5°
0°	595.8	595.8	595.8	595.8	595.8	595.8	595.8	595.8	595.8	595.8	595.8
2.5°	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3
5°	606.1	606.1	606.1	607.4	606.1	606.1	606.1	606.1	606.1	606.1	606.1
7.5°	619.1	619.1	619.1	619.1	619.1	619.1	617.8	617.8	619.1	617.8	619.1
10°	637.2	635.9	635.9	637.2	637.2	635.9	637.2	637.2	637.2	637.2	638.5
12.5°	660.5	660.5	661.8	661.8	661.8	663.1	663.1	661.8	663.1	663.1	663.1
15°	691.6	691.6	691.6	691.6	692.9	694.2	692.9	692.9	691.6	691.6	694.2
17.5°	727.9	727.9	727.9	727.9	730.4	730.4	729.1	730.4	731.7	731.7	730.4
20°	771.9	770.6	769.3	770.6	773.2	773.2	774.5	775.8	775.8	775.8	778.4
22.5°	818.5	817.2	819.8	821.1	822.4	823.7	823.7	825.0	827.6	826.3	830.2
25°	870.3	869.0	870.3	872.9	878.1	878.1	879.4	882.0	882.0	880.7	889.7
27.5°	928.6	928.6	929.9	935.1	936.4	937.7	941.5	944.1	948.0	948.0	955.8
30°	992.1	990.8	993.4	998.5	1002.4	1006.3	1011.5	1018.0	1019.3	1020.6	1028.3
32.5°	1056.8	1056.8	1059.4	1068.5	1074.9	1081.4	1089.2	1095.7	1098.3	1098.3	1109.9
35°	1125.5	1126.7	1133.2	1139.7	1152.7	1160.4	1168.2	1177.3	1182.4	1185.0	1200.6
37.5°	1198.0	1201.9	1207.0	1216.1	1229.1	1242.0	1253.7	1267.9	1275.7	1278.3	1295.1
40°	1266.6	1271.8	1279.6	1292.5	1305.5	1323.6	1337.9	1352.1	1361.2	1366.3	1392.2
42.5°	1334.0	1336.6	1345.6	1359.9	1376.7	1393.5	1413.0	1428.5	1437.6	1445.3	1473.8
45°	1387.1	1389.7	1401.3	1418.2	1437.6	1458.3	1477.7	1495.9	1504.9	1511.4	1539.9
47.5°	1431.1	1436.3	1449.2	1466.1	1485.5	1510.1	1532.1	1550.3	1561.9	1565.8	1595.6
50°	1463.5	1471.3	1482.9	1502.3	1525.6	1550.3	1573.6	1593.0	1605.9	1611.1	1638.3
52.5°	1481.6	1488.1	1501.0	1520.5	1547.7	1572.3	1596.9	1616.3	1630.5	1635.7	1660.3
54°	1484.2	1488.1	1502.3	1523.1	1550.3	1576.2	1600.8	1620.2	1634.4	1639.6	1665.5
55°	1481.6	1484.2	1499.7	1519.2	1547.7	1573.6	1598.2	1617.6	1633.1	1638.3	1662.9
57.5°	1455.7	1459.6	1472.5	1493.3	1519.2	1549.0	1572.3	1591.7	1607.2	1609.8	1633.1
60°	1402.6	1407.8	1419.4	1441.5	1467.4	1493.3	1516.6	1533.4	1547.7	1555.4	1572.3
62.5°	1326.2	1328.8	1340.4	1359.9	1383.2	1410.4	1428.5	1445.3	1458.3	1466.1	1480.3
65°	1217.4	1229.1	1238.1	1253.7	1271.8	1293.8	1317.1	1330.1	1336.6	1349.5	1359.9
67.5°	1095.7	1103.4	1112.5	1126.7	1138.4	1152.7	1174.7	1186.3	1194.1	1203.2	1212.2
70°	959.7	957.1	967.5	975.2	988.2	997.2	1011.5	1018.0	1027.0	1032.2	1047.7
72.5°	797.8	801.7	810.7	819.8	823.7	826.3	837.9	841.8	849.6	847.0	866.4
75°	651.4	645.0	647.6	648.9	651.4	648.9	656.6	660.5	664.4	660.5	670.9
77.5°	492.1	484.4	487.0	485.7	485.7	483.1	481.8	481.8	483.1	480.5	487.0
80°	339.3	335.4	336.7	339.3	332.8	334.1	326.4	326.4	326.4	326.4	329.0
82.5°	209.8	204.6	203.3	204.6	204.6	200.7	202.0	196.9	195.6	194.3	205.9
85°	102.3	99.7	102.3	99.7	98.4	98.4	95.8	97.1	94.5	93.2	101.0
87.5°	27.2	25.9	25.9	25.9	24.6	25.9	25.9	25.9	25.9	27.2	31.1
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-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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CATALOG NUMBER: TT-C4-LED-E1-WQ-SG-LWR-LW-UPL

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°
0°	595.8	595.8	595.8	595.8	595.8	595.8	595.8	595.8	595.8
2.5°	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	597.0
5°	606.1	606.1	606.1	606.1	606.1	606.1	606.1	606.1	606.1
7.5°	619.1	619.1	617.8	617.8	617.8	617.8	617.8	617.8	617.8
10°	637.2	638.5	635.9	635.9	637.2	635.9	635.9	634.6	634.6
12.5°	663.1	661.8	663.1	663.1	661.8	660.5	659.2	657.9	659.2
15°	692.9	691.6	691.6	691.6	690.3	690.3	689.0	690.3	689.0
17.5°	729.1	729.1	730.4	726.6	727.9	725.3	725.3	725.3	724.0
20°	775.8	774.5	773.2	769.3	770.6	768.0	766.7	765.4	764.1
22.5°	826.3	823.7	822.4	818.5	819.8	817.2	813.3	810.7	810.7
25°	882.0	879.4	876.8	875.5	874.2	869.0	866.4	862.5	865.1
27.5°	948.0	942.8	939.0	933.8	935.1	928.6	926.0	923.4	923.4
30°	1019.3	1015.4	1008.9	1005.0	1003.7	997.2	992.1	989.5	988.2
32.5°	1097.0	1094.4	1090.5	1084.0	1081.4	1071.1	1067.2	1063.3	1062.0
35°	1188.9	1182.4	1178.6	1169.5	1160.4	1153.9	1144.9	1142.3	1139.7
37.5°	1274.4	1274.4	1267.9	1257.6	1244.6	1235.5	1227.8	1222.6	1218.7
40°	1365.1	1362.5	1352.1	1343.0	1330.1	1317.1	1302.9	1297.7	1295.1
42.5°	1445.3	1440.2	1429.8	1418.2	1405.2	1389.7	1374.1	1366.3	1365.1
45°	1512.7	1506.2	1495.9	1480.3	1463.5	1447.9	1433.7	1425.9	1422.0
47.5°	1567.1	1559.3	1546.4	1532.1	1512.7	1494.6	1480.3	1472.5	1467.4
50°	1607.2	1600.8	1586.5	1568.4	1549.0	1528.2	1514.0	1504.9	1501.0
52.5°	1633.1	1624.1	1608.5	1589.1	1567.1	1546.4	1529.5	1519.2	1515.3
54°	1638.3	1628.0	1611.1	1590.4	1567.1	1545.1	1529.5	1517.9	1514.0
55°	1635.7	1625.4	1607.2	1587.8	1563.2	1541.2	1524.3	1512.7	1508.8
57.5°	1608.5	1596.9	1580.0	1559.3	1533.4	1511.4	1495.9	1482.9	1479.0
60°	1550.3	1539.9	1520.5	1502.3	1476.4	1454.4	1437.6	1424.6	1420.7
62.5°	1460.9	1451.8	1435.0	1416.9	1389.7	1370.2	1353.4	1345.6	1335.3
65°	1341.7	1335.3	1318.4	1296.4	1277.0	1257.6	1240.7	1235.5	1229.1
67.5°	1199.3	1190.2	1183.7	1161.7	1146.2	1128.0	1111.2	1100.8	1098.3
70°	1030.9	1027.0	1020.6	999.8	990.8	975.2	963.6	954.5	951.9
72.5°	849.6	845.7	844.4	834.1	822.4	808.2	803.0	795.2	793.9
75°	660.5	657.9	660.5	652.7	648.9	645.0	642.4	642.4	638.5
77.5°	477.9	481.8	483.1	483.1	485.7	485.7	488.3	484.4	480.5
80°	325.1	329.0	327.7	330.3	329.0	338.0	331.5	336.7	331.5
82.5°	195.6	200.7	200.7	200.7	205.9	204.6	204.6	207.2	205.9
85°	95.8	97.1	95.8	94.5	101.0	99.7	99.7	98.4	99.7
87.5°	28.5	25.9	27.2	24.6	27.2	23.3	25.9	25.9	27.2
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-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)