

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: P198466

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198466
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-LWR-LW-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
WIDE DISTRIBUTION WITH CLEAR 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: 6812.7 lumens
Efficiency: N/A
Efficacy: 90.4 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B3 - U4 - G2

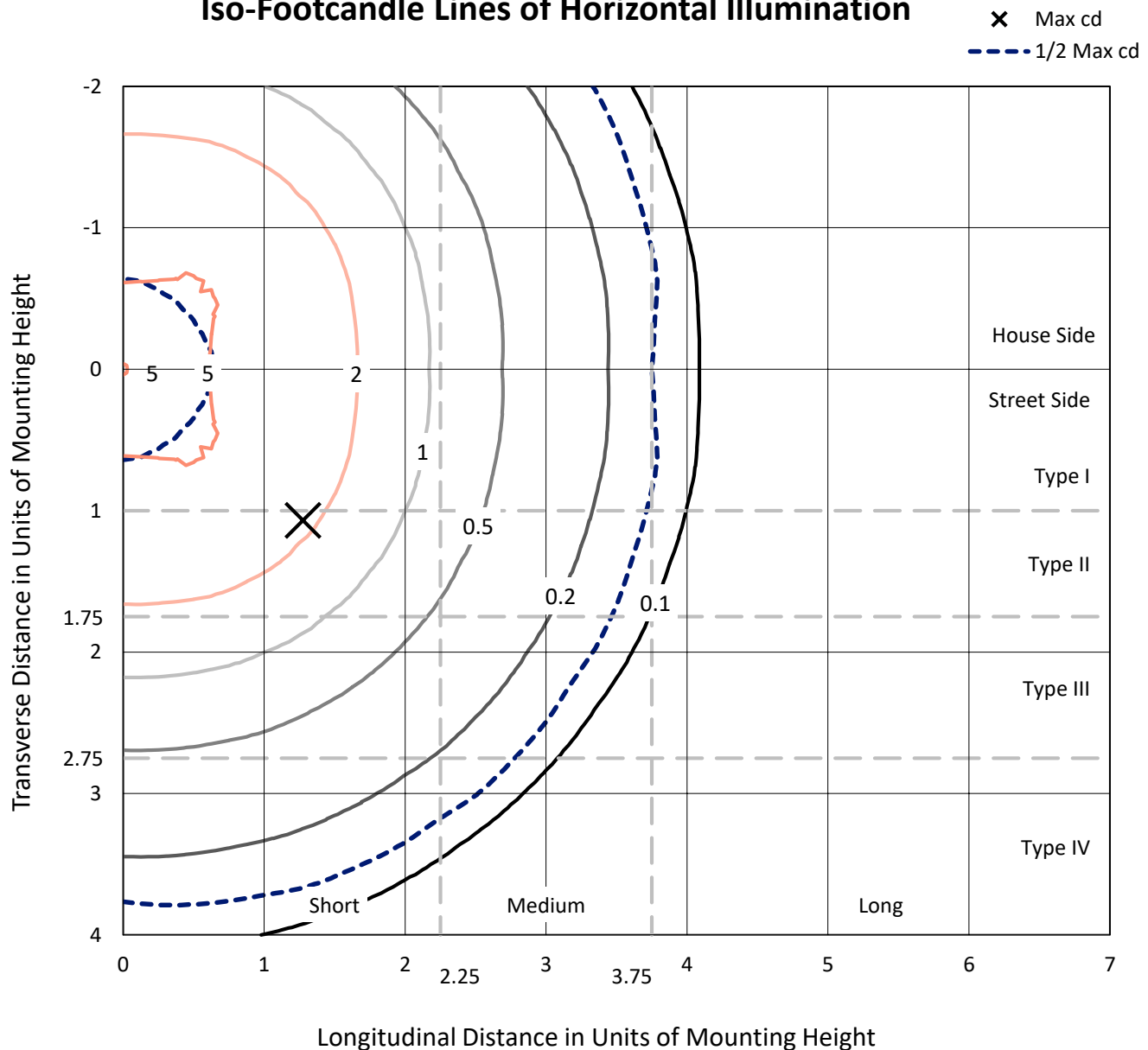
Input Watts (W): 75.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P198466

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

Iso-Footcandle Lines of Horizontal Illumination

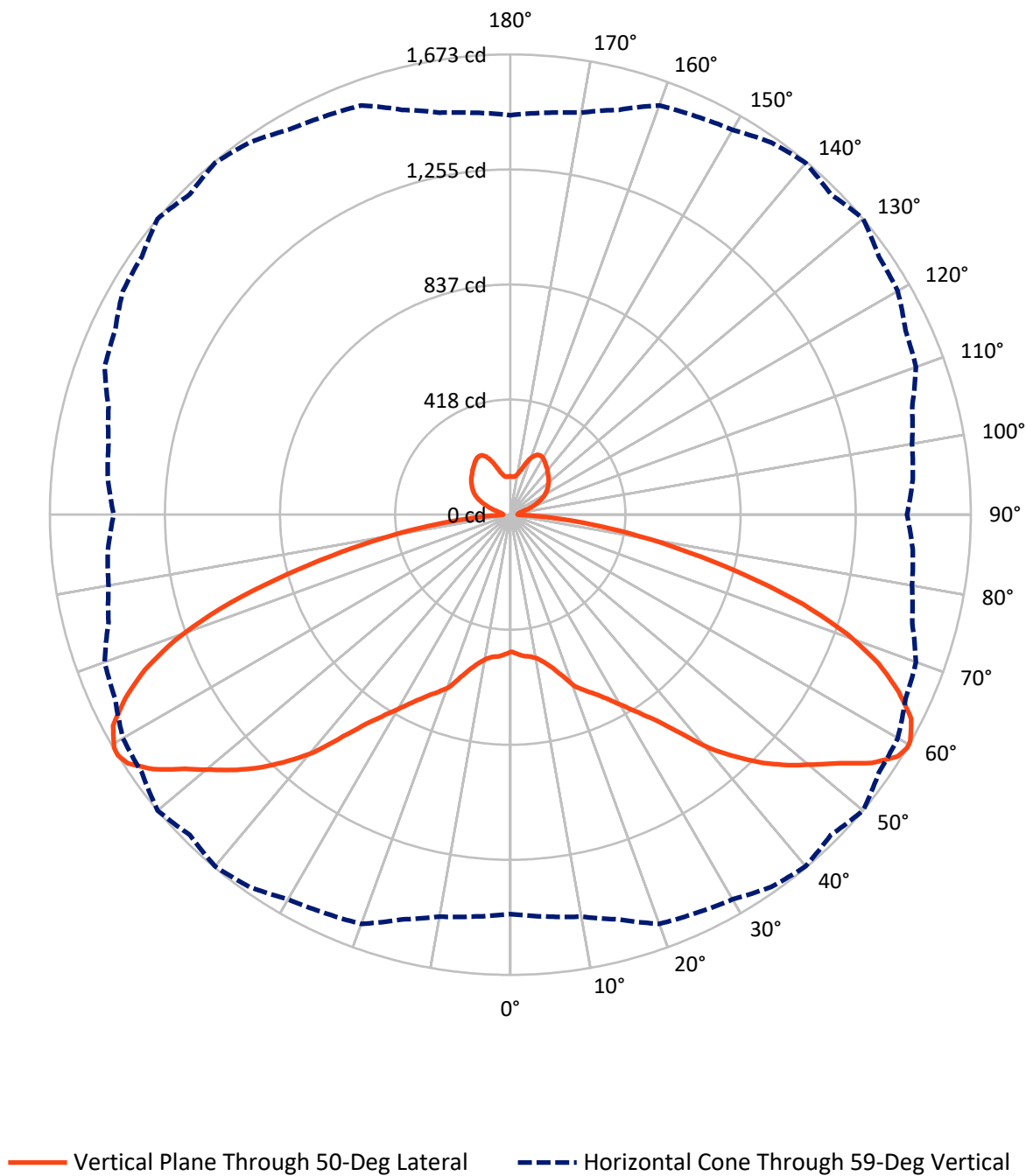


Based on 10 foot mounting height. Maximum calculated value = 5.5 fc
Type V - Short - Semi-Cutoff

REPORT NUMBER: P198466

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

Luminous Intensity Polar Plot



REPORT NUMBER: P198466

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

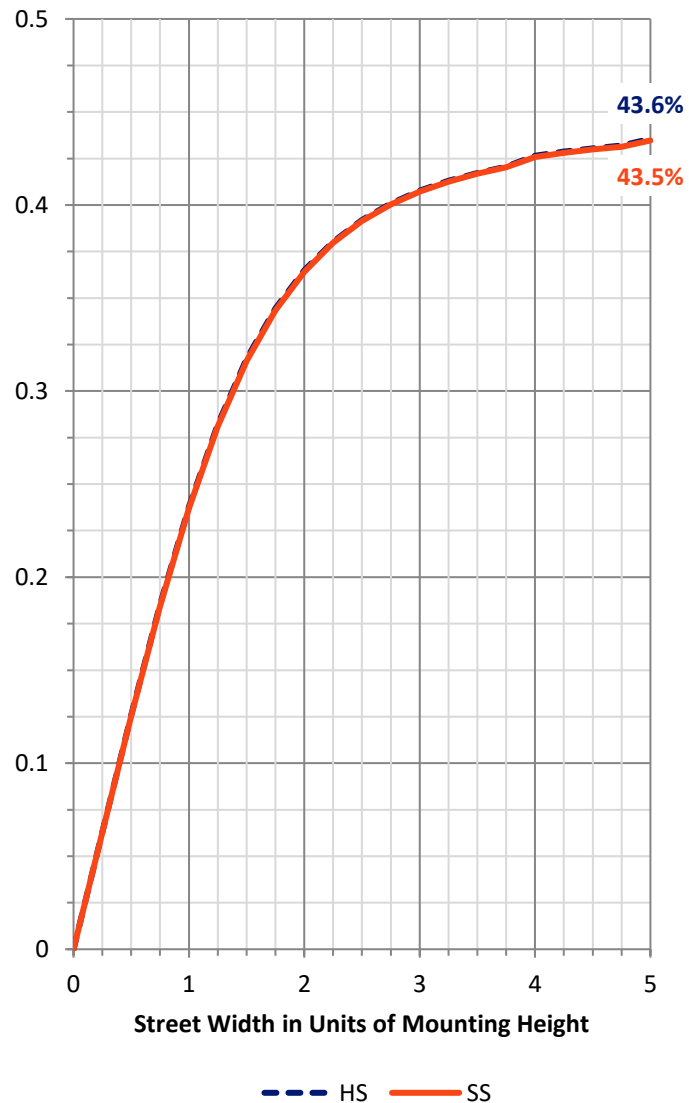
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2994.4	412.0	3406.4
	% Fixture	44.0	6.0	50.0
Street Side	Lumens	2994.4	412.0	3406.4
	% Fixture	44.0	6.0	50.0
Total	Lumens	5988.7	824.0	6812.7
	% Fixture	87.9	12.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.5	0.7
10°-20°	167.1	2.5
20°-30°	336.4	4.9
30°-40°	578.8	8.5
40°-50°	955.6	14.0
50°-60°	1345.6	19.8
60°-70°	1439.5	21.1
70°-80°	914.3	13.4
80°-90°	202.0	3.0
90°-100°	38.3	0.6
100°-110°	59.4	0.9
110°-120°	119.3	1.8
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°	5988.7	87.9
0°-180°	6812.7	100.0

Coefficient of Utilization



REPORT NUMBER: P198466

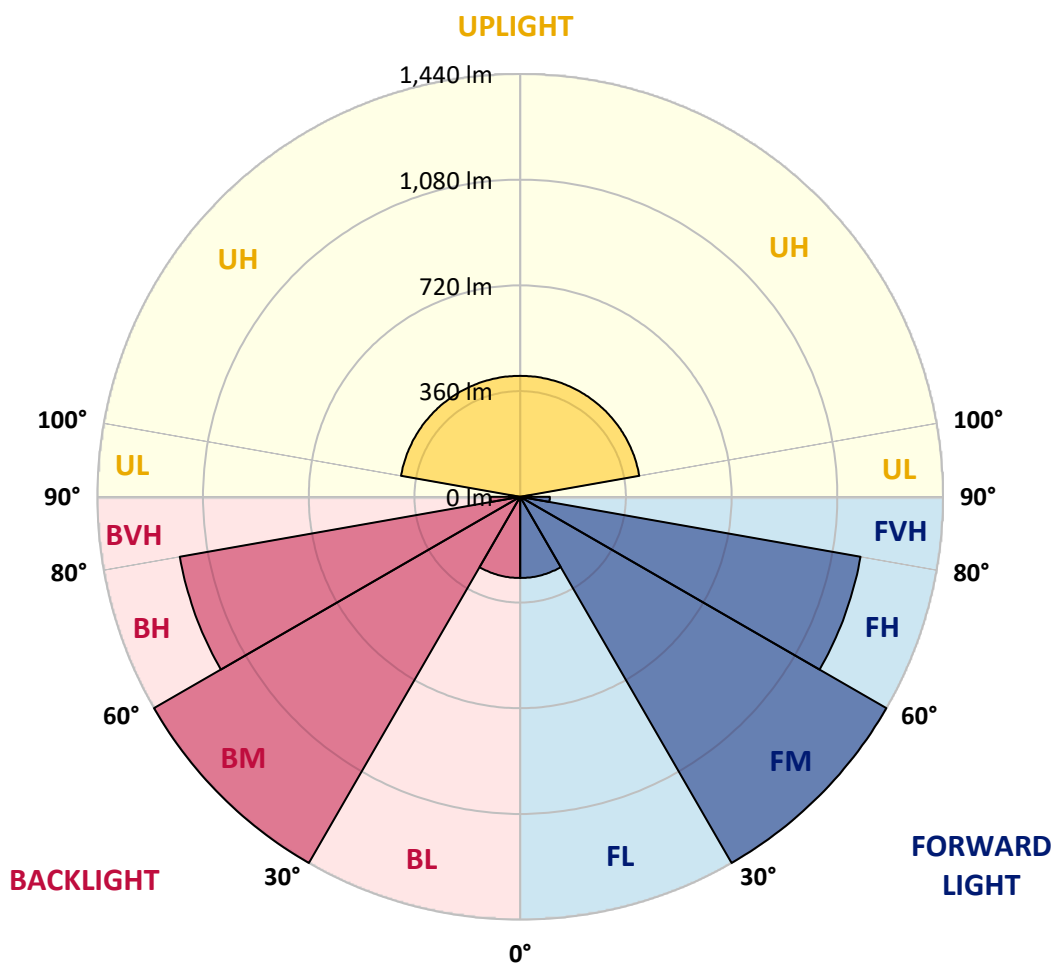
CATALOG NUMBER: TT-C4-LED-E1-WQ-CG-LWR-LW-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	276.5	4.1			
FM	(30°-60°)	1440.0	21.1			
FH	(60°-80°)	1176.9	17.3			G1/1800
FVH	(80°-90°)	101.0	1.5			G2/225
BL	(0°-30°)	276.5	4.1	B1/500		
BM	(30°-60°)	1440.0	21.1	B2/2500		
BH	(60°-80°)	1176.9	17.3	B3/2500		G1/1800
BVH	(80°-90°)	101.0	1.5			G2/225
UL	(90°-100°)	38.3	0.6		U2/50	
UH	(100°-180°)	412.0	6.0		U3/500	

BUG Rating: B3-U4-G2

Type V Short



REPORT NUMBER: P198466

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

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	498.1	498.1	498.1	498.1	498.1	498.1	498.1	498.1	498.1	498.1	498.1
2.5°	508.6	507.3	507.3	507.3	507.3	507.3	507.3	507.3	507.3	507.3	507.3
5°	511.3	511.3	512.6	512.6	513.9	513.9	513.9	515.3	515.3	515.3	516.6
7.5°	516.6	515.3	516.6	516.6	516.6	517.9	517.9	517.9	519.2	520.6	520.6
10°	533.8	532.5	533.8	533.8	533.8	531.2	531.2	532.5	531.2	531.2	531.2
12.5°	553.7	553.7	555.0	556.3	556.3	555.0	553.7	552.4	551.0	551.0	551.0
15°	572.2	573.6	574.9	577.5	578.9	578.9	580.2	581.5	580.2	580.2	578.9
17.5°	601.4	604.0	605.3	606.7	606.7	606.7	609.3	613.3	617.3	619.9	617.3
20°	650.4	651.7	654.4	654.4	653.0	654.4	657.0	658.3	661.0	663.6	665.0
22.5°	683.5	686.1	690.1	690.1	688.8	690.1	692.8	692.8	690.1	691.4	694.1
25°	711.3	712.6	715.3	716.6	717.9	724.6	729.9	728.5	723.2	724.6	723.2
27.5°	744.4	747.1	749.7	749.7	749.7	753.7	759.0	761.6	765.6	764.3	760.3
30°	788.1	792.1	793.4	792.1	794.8	798.7	797.4	800.1	806.7	813.3	805.4
32.5°	822.6	826.6	830.5	835.8	845.1	850.4	847.7	849.1	853.0	858.3	858.3
35°	874.2	880.9	883.5	884.8	894.1	904.7	912.7	919.3	918.0	914.0	920.6
37.5°	952.4	959.0	961.7	967.0	978.9	981.5	993.5	1009.3	1014.6	1009.3	1009.3
40°	1035.8	1042.5	1055.7	1067.6	1086.2	1090.1	1104.7	1111.3	1124.6	1125.9	1118.0
42.5°	1104.7	1112.7	1115.3	1135.2	1160.4	1178.9	1194.8	1196.1	1205.4	1213.3	1204.1
45°	1178.9	1185.5	1189.5	1208.0	1221.3	1243.8	1269.0	1279.6	1283.5	1282.2	1287.5
47.5°	1247.8	1257.0	1261.0	1275.6	1291.5	1310.0	1324.6	1355.1	1361.7	1348.4	1360.4
50°	1290.2	1300.8	1310.0	1341.8	1369.6	1384.2	1396.1	1421.3	1435.9	1423.9	1427.9
52.5°	1356.4	1359.0	1367.0	1380.2	1421.3	1470.3	1483.6	1491.5	1512.7	1519.3	1500.8
55°	1446.5	1455.7	1462.4	1479.6	1496.8	1531.2	1589.5	1600.1	1594.8	1626.6	1593.5
57.5°	1459.7	1476.9	1496.8	1535.2	1569.7	1580.3	1614.7	1655.8	1651.8	1655.8	1658.4
59°	1451.8	1466.3	1483.6	1523.3	1582.9	1597.5	1614.7	1651.8	1669.0	1646.5	1673.0
60°	1454.4	1465.0	1474.3	1506.1	1569.7	1602.8	1613.4	1635.9	1669.0	1638.5	1670.3
62.5°	1443.8	1457.1	1467.7	1486.2	1516.7	1563.0	1604.1	1593.5	1641.2	1617.3	1634.6
65°	1386.9	1401.4	1422.6	1449.1	1484.9	1498.1	1539.2	1561.7	1551.1	1577.6	1549.8
67.5°	1291.5	1304.7	1318.0	1349.8	1389.5	1406.7	1417.3	1458.4	1443.8	1474.3	1442.5
70°	1164.3	1178.9	1197.4	1214.7	1250.4	1265.0	1276.9	1295.5	1300.8	1300.8	1298.1
72.5°	1012.0	1023.9	1035.8	1053.1	1074.3	1087.5	1092.8	1096.8	1118.0	1110.0	1111.3
75°	839.8	851.7	857.0	863.6	878.2	876.9	882.2	879.5	892.8	887.5	884.8
77.5°	657.0	661.0	675.5	675.5	671.6	678.2	671.6	667.6	665.0	667.6	667.6
80°	455.7	467.6	476.9	483.5	486.1	483.5	484.8	479.5	479.5	475.5	476.9
82.5°	280.8	292.7	296.7	303.3	304.7	304.7	304.7	300.7	302.0	298.0	300.7
85°	137.8	137.8	143.1	149.7	151.0	153.7	153.7	153.7	153.7	153.7	155.0
87.5°	34.4	34.4	37.1	41.1	41.1	42.4	43.7	45.0	45.0	46.4	46.4
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	32.0
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

REPORT NUMBER: P198466

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

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

REPORT NUMBER: P198466

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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	498.1	498.1	498.1	498.1	498.1	498.1	498.1	498.1
2.5°	507.3	507.3	507.3	507.3	507.3	507.3	507.3	507.3
5°	516.6	515.3	515.3	513.9	513.9	512.6	512.6	512.6
7.5°	521.9	521.9	520.6	519.2	517.9	517.9	519.2	519.2
10°	532.5	535.1	536.5	536.5	535.1	535.1	533.8	533.8
12.5°	549.7	552.4	555.0	557.7	557.7	556.3	553.7	552.4
15°	576.2	576.2	577.5	578.9	578.9	576.2	570.9	570.9
17.5°	612.0	609.3	605.3	606.7	608.0	606.7	601.4	604.0
20°	661.0	655.7	653.0	650.4	655.7	655.7	647.7	647.7
22.5°	696.7	692.8	686.1	684.8	688.8	691.4	684.8	680.8
25°	727.2	728.5	720.6	716.6	717.9	719.3	710.0	711.3
27.5°	760.3	761.6	757.7	751.1	748.4	752.4	745.8	743.1
30°	800.1	798.7	801.4	793.4	786.8	790.8	790.8	784.2
32.5°	851.7	847.7	849.1	839.8	831.9	830.5	825.2	817.3
35°	921.9	911.3	903.4	898.1	883.5	880.9	880.9	871.6
37.5°	1013.3	997.4	982.9	982.9	960.3	953.7	957.7	945.8
40°	1115.3	1110.0	1087.5	1083.5	1059.7	1043.8	1043.8	1029.2
42.5°	1189.5	1196.1	1169.6	1153.7	1137.8	1112.7	1115.3	1096.8
45°	1270.3	1266.3	1243.8	1216.0	1210.7	1184.2	1186.8	1168.3
47.5°	1347.1	1323.3	1312.7	1284.9	1272.9	1242.5	1251.8	1237.2
50°	1421.3	1394.8	1384.2	1351.1	1335.2	1302.1	1303.4	1276.9
52.5°	1498.1	1474.3	1458.4	1416.0	1388.2	1364.3	1359.0	1347.1
55°	1597.5	1572.3	1533.9	1494.2	1473.0	1438.5	1442.5	1423.9
57.5°	1635.9	1620.0	1578.9	1555.1	1515.3	1480.9	1473.0	1439.8
59°	1634.6	1625.3	1584.2	1568.3	1511.4	1482.2	1467.7	1441.2
60°	1625.3	1622.6	1581.6	1561.7	1502.1	1475.6	1462.4	1445.1
62.5°	1597.5	1596.1	1549.8	1525.9	1476.9	1455.7	1447.8	1425.3
65°	1556.4	1533.9	1498.1	1482.2	1431.9	1416.0	1393.5	1371.0
67.5°	1458.4	1408.1	1402.8	1382.9	1339.2	1319.3	1304.7	1283.5
70°	1296.8	1263.7	1263.7	1238.5	1208.0	1198.8	1178.9	1155.1
72.5°	1095.4	1087.5	1091.5	1062.3	1047.8	1042.5	1025.2	1004.1
75°	875.6	876.9	872.9	866.3	862.3	863.6	845.1	835.8
77.5°	663.6	675.5	672.9	663.6	672.9	671.6	655.7	651.7
80°	472.9	478.2	480.8	475.5	480.8	476.9	463.6	462.3
82.5°	298.0	299.4	302.0	296.7	298.0	296.7	287.4	287.4
85°	152.3	157.6	151.0	145.7	145.7	140.4	137.8	139.1
87.5°	45.0	47.7	42.4	42.4	39.7	37.1	35.8	35.8
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

REPORT NUMBER: P198466

CATALOG NUMBER: TT-C4-LED-E1-WQ-CG-LWR-LW-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)