

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: P198363

Luminaire Tested: **TT-C3-LED-E1-CQ-LWR-LW-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198363
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-C3-LED-E1-CQ-LWR-LW-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
CONCENTRATED DISTRIBUTION WITH LumaWatt WIRELESS SENSOR
Light Source: (168) 4000K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6646.5 lumens
Efficiency: N/A
Efficacy: 106.5 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): 62.4
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

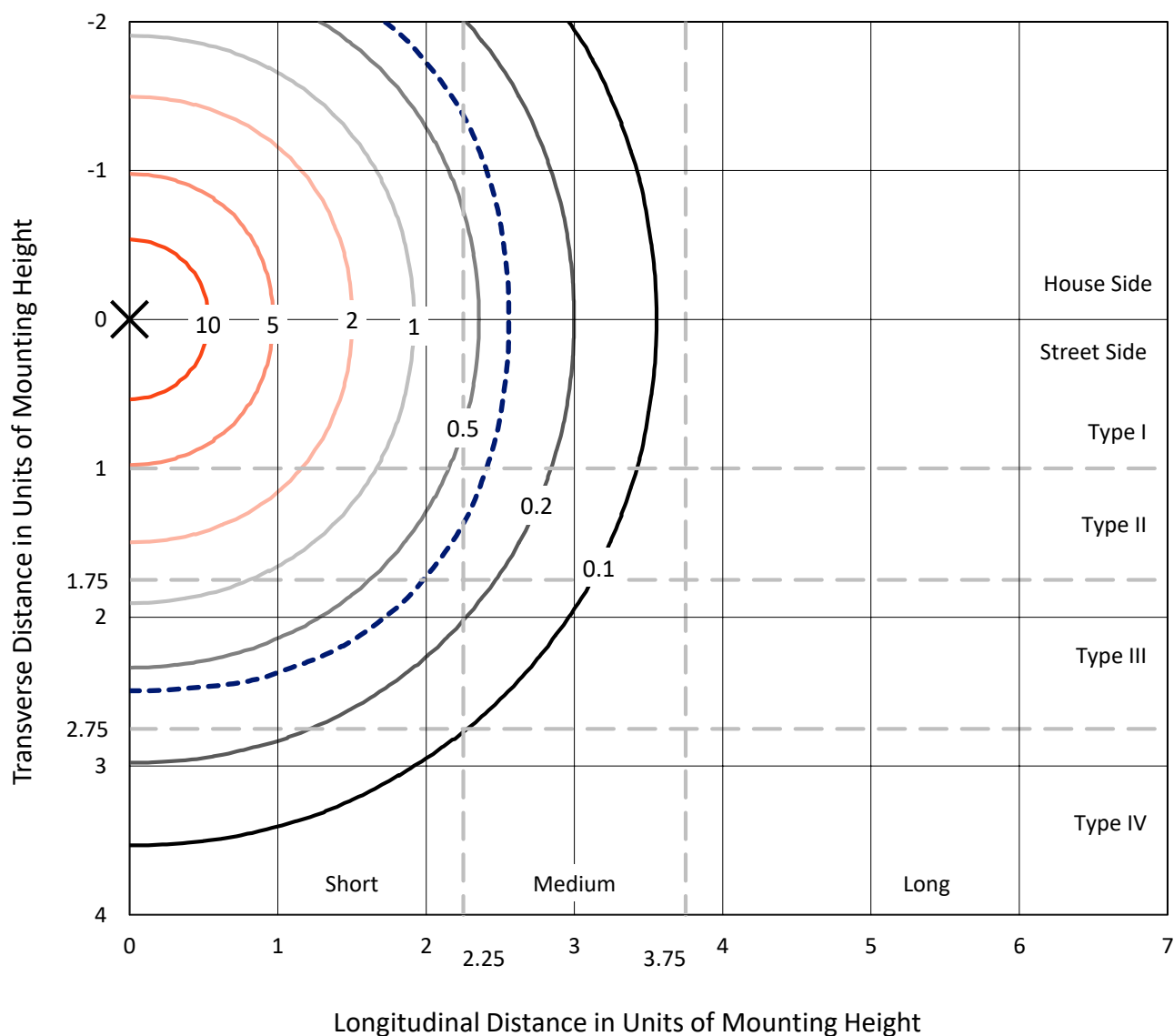


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

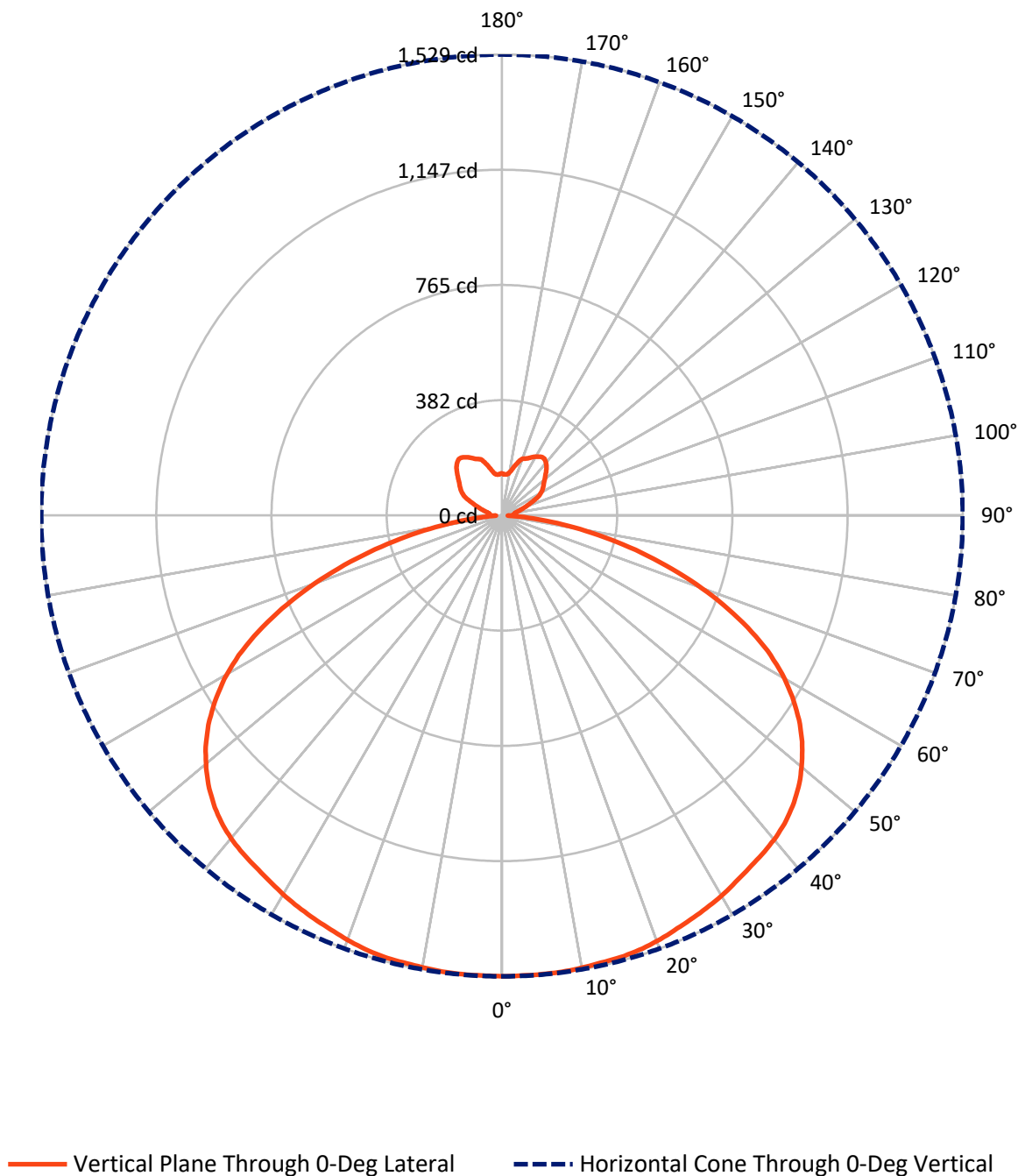


Based on 10 foot mounting height. Maximum calculated value = 15.3 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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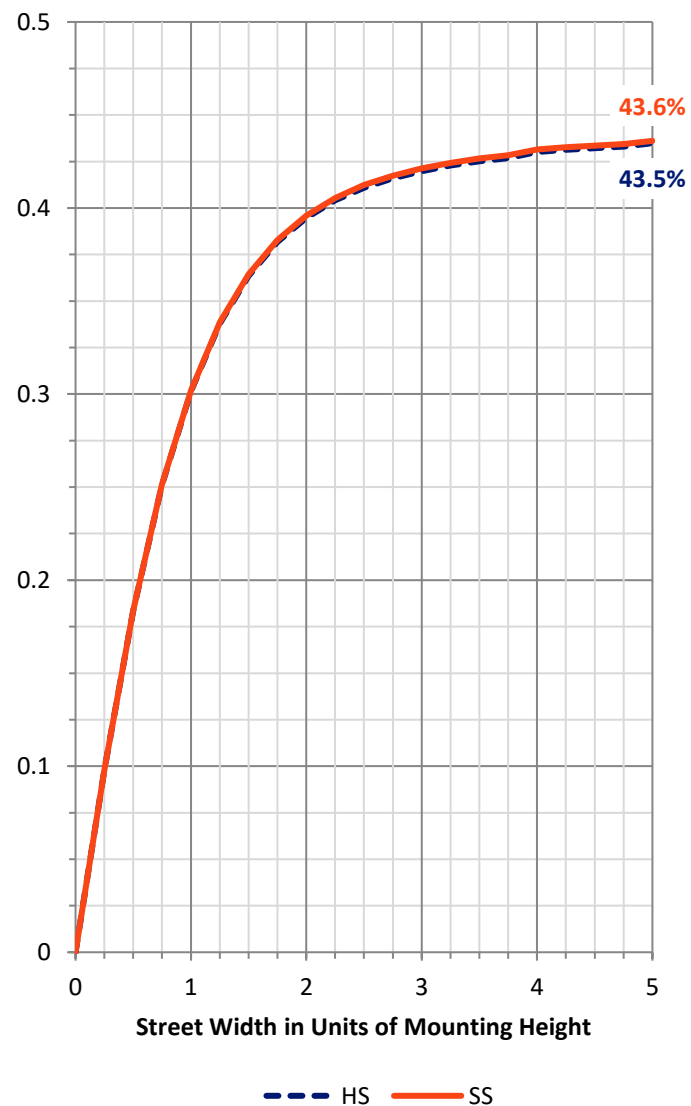
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2911.3	412.0	3323.3
	% Fixture	43.8	6.2	50.0
Street Side	Lumens	2911.3	412.0	3323.3
	% Fixture	43.8	6.2	50.0
Total	Lumens	5822.6	824.0	6646.5
	% Fixture	87.6	12.4	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.7	2.2
10°-20°	429.1	6.5
20°-30°	683.4	10.3
30°-40°	895.9	13.5
40°-50°	1056.7	15.9
50°-60°	1094.4	16.5
60°-70°	915.2	13.8
70°-80°	498.9	7.5
80°-90°	103.4	1.6
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	2.3
140°-150°	136.0	2.0
150°-160°	103.7	1.6
160°-170°	51.8	0.8
170°-180°	13.6	0.2
0°-90°	5822.6	87.6
0°-180°	6646.5	100.0

Coefficient of Utilization



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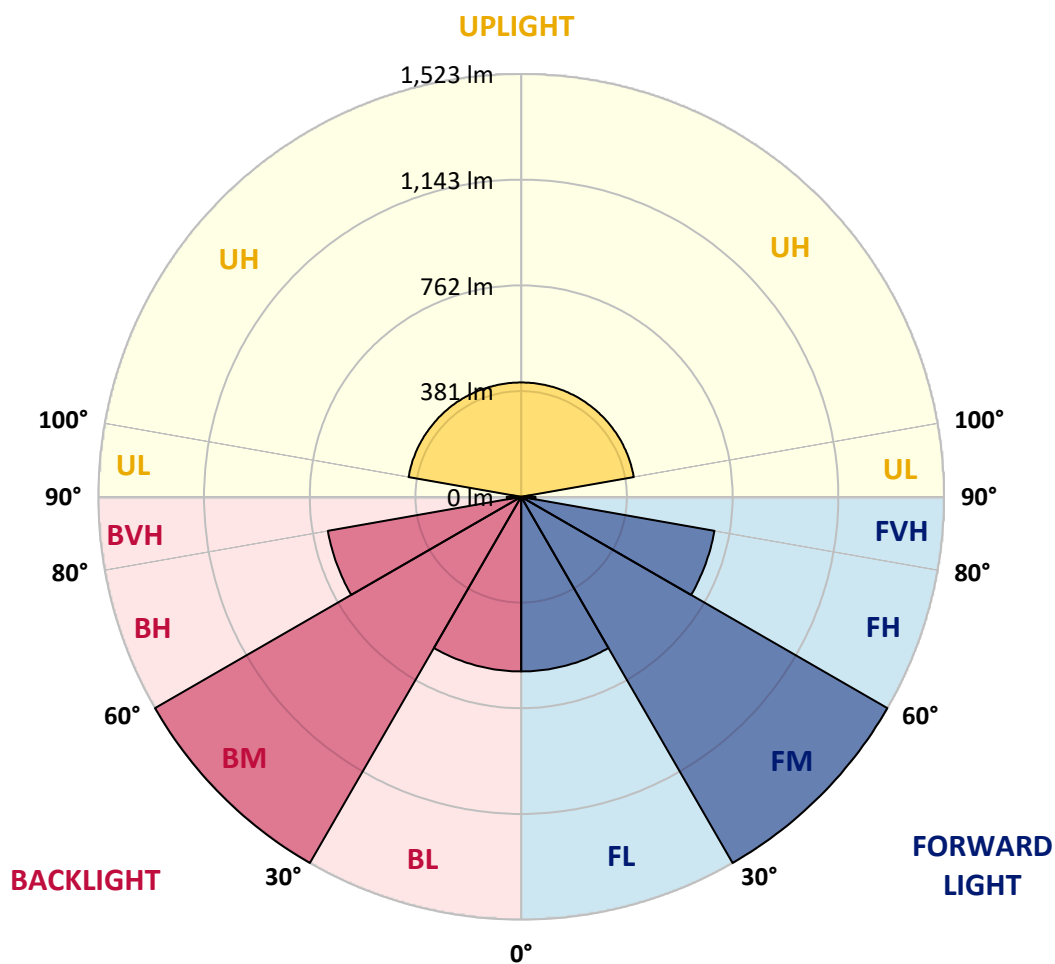
CATALOG NUMBER: TT-C3-LED-E1-CQ-LWR-LW-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	629.1	9.5			
FM	(30°-60°)	1523.5	22.9			
FH	(60°-80°)	707.0	10.6			G1/1800
FVH	(80°-90°)	51.7	0.8			G1/100
BL	(0°-30°)	629.1	9.5	B2/1000		
BM	(30°-60°)	1523.5	22.9	B2/2500		
BH	(60°-80°)	707.0	10.6	B2/1000		G1/1800
BVH	(80°-90°)	51.7	0.8			G1/100
UL	(90°-100°)	38.3	0.6		U2/50	
UH	(100°-180°)	412.0	6.2		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°	1529.0	1529.0	1529.0	1529.0	1529.0	1529.0	1529.0	1529.0	1529.0	1529.0	1529.0
2.5°	1527.8	1529.0	1529.0	1529.0	1529.0	1529.0	1529.0	1529.0	1527.8	1529.0	1529.0
5°	1527.8	1527.8	1527.8	1527.8	1529.0	1527.8	1527.8	1527.8	1527.8	1527.8	1527.8
7.5°	1526.6	1525.4	1525.4	1525.4	1525.4	1525.4	1526.6	1526.6	1526.6	1526.6	1526.6
10°	1522.9	1522.9	1522.9	1522.9	1522.9	1522.9	1522.9	1522.9	1522.9	1522.9	1522.9
12.5°	1519.2	1519.2	1519.2	1519.2	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1519.2
15°	1516.8	1516.8	1516.8	1516.8	1516.8	1516.8	1516.8	1516.8	1516.8	1516.8	1516.8
17.5°	1510.7	1510.7	1510.7	1510.7	1511.9	1511.9	1511.9	1511.9	1511.9	1511.9	1511.9
20°	1500.9	1500.9	1500.9	1500.9	1500.9	1502.1	1503.3	1503.3	1503.3	1503.3	1503.3
22.5°	1488.6	1488.6	1489.9	1489.9	1491.1	1491.1	1492.3	1492.3	1492.3	1492.3	1492.3
25°	1477.6	1477.6	1477.6	1478.8	1478.8	1478.8	1480.1	1481.3	1481.3	1481.3	1480.1
27.5°	1466.6	1466.6	1466.6	1467.8	1467.8	1467.8	1469.1	1469.1	1470.3	1469.1	1469.1
30°	1454.4	1453.1	1453.1	1454.4	1455.6	1455.6	1456.8	1456.8	1456.8	1456.8	1455.6
32.5°	1439.7	1439.7	1440.9	1442.1	1442.1	1443.3	1444.6	1444.6	1444.6	1445.8	1443.3
35°	1426.2	1427.4	1427.4	1428.7	1431.1	1432.3	1433.5	1434.8	1434.8	1434.8	1432.3
37.5°	1415.2	1416.4	1417.6	1420.1	1422.5	1425.0	1427.4	1429.9	1428.7	1428.7	1425.0
40°	1401.7	1402.9	1405.4	1407.8	1412.7	1415.2	1418.9	1421.3	1422.5	1421.3	1417.6
42.5°	1383.4	1384.6	1387.0	1390.7	1396.8	1401.7	1405.4	1409.1	1410.3	1409.1	1405.4
45°	1358.9	1360.1	1362.5	1367.4	1374.8	1379.7	1385.8	1389.5	1391.9	1391.9	1388.3
47.5°	1328.3	1329.5	1333.2	1338.1	1345.4	1351.5	1358.9	1363.8	1366.2	1368.7	1365.0
50°	1290.3	1291.5	1296.4	1302.6	1308.7	1317.2	1325.8	1333.2	1336.8	1338.1	1336.8
52.5°	1247.5	1248.7	1253.6	1259.7	1268.3	1278.1	1287.9	1296.4	1301.3	1303.8	1301.3
55°	1196.1	1198.5	1202.2	1210.7	1220.5	1229.1	1241.3	1251.1	1257.3	1258.5	1257.3
57.5°	1136.1	1139.7	1143.4	1153.2	1163.0	1175.2	1185.0	1194.8	1202.2	1203.4	1203.4
60°	1068.7	1071.2	1074.9	1084.6	1095.7	1104.2	1117.7	1127.5	1133.6	1133.6	1134.8
62.5°	989.2	991.6	997.7	1005.1	1017.3	1025.9	1036.9	1046.7	1052.8	1055.3	1054.0
65°	896.1	898.6	902.2	912.0	921.8	931.6	942.6	951.2	957.3	958.6	957.3
67.5°	793.3	795.7	798.2	810.4	820.2	823.9	837.4	844.7	848.4	849.6	849.6
70°	684.3	685.6	689.2	695.4	706.4	710.0	718.6	724.7	727.2	732.1	728.4
72.5°	570.5	572.9	581.5	582.7	591.3	596.2	598.6	598.6	604.8	604.8	606.0
75°	457.9	459.1	462.8	464.0	470.1	470.1	468.9	471.3	476.2	476.2	477.4
77.5°	346.5	346.5	352.6	347.7	350.1	345.2	347.7	345.2	348.9	347.7	348.9
80°	242.4	242.4	246.1	241.2	242.4	237.5	238.7	237.5	237.5	238.7	238.7
82.5°	149.4	150.6	153.0	149.4	149.4	145.7	146.9	148.1	148.1	146.9	145.7
85°	73.5	73.5	75.9	74.7	73.5	71.0	72.2	73.5	73.5	72.2	72.2
87.5°	19.6	19.6	20.8	20.8	19.6	18.4	19.6	20.8	20.8	20.8	19.6
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°	1529.0	1529.0	1529.0	1529.0	1529.0	1529.0	1529.0	1529.0
2.5°	1527.8	1527.8	1529.0	1527.8	1529.0	1527.8	1529.0	1529.0
5°	1527.8	1527.8	1527.8	1527.8	1527.8	1527.8	1527.8	1527.8
7.5°	1525.4	1526.6	1525.4	1525.4	1525.4	1526.6	1525.4	1526.6
10°	1522.9	1522.9	1522.9	1522.9	1522.9	1522.9	1522.9	1522.9
12.5°	1519.2	1519.2	1519.2	1519.2	1519.2	1519.2	1519.2	1518.0
15°	1516.8	1515.6	1515.6	1515.6	1514.3	1514.3	1514.3	1514.3
17.5°	1511.9	1510.7	1509.5	1509.5	1509.5	1509.5	1508.2	1508.2
20°	1503.3	1502.1	1500.9	1500.9	1499.7	1499.7	1498.4	1498.4
22.5°	1491.1	1491.1	1489.9	1488.6	1488.6	1487.4	1487.4	1486.2
25°	1480.1	1478.8	1477.6	1476.4	1475.2	1475.2	1473.9	1472.7
27.5°	1467.8	1465.4	1464.2	1462.9	1461.7	1460.5	1459.3	1458.0
30°	1454.4	1451.9	1449.5	1448.2	1445.8	1443.3	1442.1	1440.9
32.5°	1440.9	1438.4	1434.8	1431.1	1428.7	1426.2	1423.8	1422.5
35°	1429.9	1425.0	1421.3	1416.4	1412.7	1409.1	1407.8	1406.6
37.5°	1421.3	1416.4	1410.3	1405.4	1401.7	1396.8	1394.4	1391.9
40°	1412.7	1406.6	1399.3	1393.2	1388.3	1382.1	1379.7	1377.2
42.5°	1400.5	1393.2	1385.8	1378.5	1371.1	1365.0	1361.3	1358.9
45°	1383.4	1376.0	1367.4	1357.6	1350.3	1343.0	1339.3	1336.8
47.5°	1360.1	1352.8	1343.0	1334.4	1325.8	1318.5	1313.6	1311.1
50°	1331.9	1324.6	1314.8	1305.0	1296.4	1287.9	1284.2	1280.5
52.5°	1296.4	1290.3	1279.3	1272.0	1262.2	1253.6	1249.9	1247.5
55°	1252.4	1246.2	1235.2	1227.9	1218.1	1210.7	1205.8	1202.2
57.5°	1198.5	1193.6	1181.4	1174.0	1164.2	1156.9	1153.2	1150.8
60°	1132.4	1127.5	1115.3	1107.9	1099.3	1090.8	1088.3	1085.9
62.5°	1050.4	1047.9	1038.1	1029.6	1021.0	1012.4	1010.0	1008.7
65°	954.9	952.4	943.9	936.5	929.2	921.8	919.4	916.9
67.5°	845.9	844.7	837.4	831.2	826.3	819.0	817.8	815.3
70°	729.6	727.2	721.1	716.2	712.5	706.4	705.1	702.7
72.5°	608.4	607.2	603.5	597.4	597.4	588.8	587.6	586.4
75°	475.0	481.1	476.2	473.8	473.8	468.9	468.9	467.6
77.5°	347.7	353.8	357.5	352.6	357.5	352.6	352.6	351.3
80°	237.5	242.4	246.1	242.4	248.5	244.8	244.8	249.7
82.5°	144.5	149.4	151.8	150.6	154.3	153.0	151.8	155.5
85°	71.0	73.5	74.7	74.7	75.9	73.5	75.9	77.1
87.5°	18.4	19.6	20.8	19.6	20.8	20.8	20.8	22.0
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-C3-LED-E1-CQ-LWR-LW-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)