

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: P198365

Luminaire Tested: **TT-C3-LED-E1-CQ-MS/DIM-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198365
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-MS/DIM-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
CONCENTRATED DISTRIBUTION WITH DIMMING OCCUPANCY SENSOR
Light Source: (168) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7038.2 lumens
Efficiency: N/A
Efficacy: 112.8 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): 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

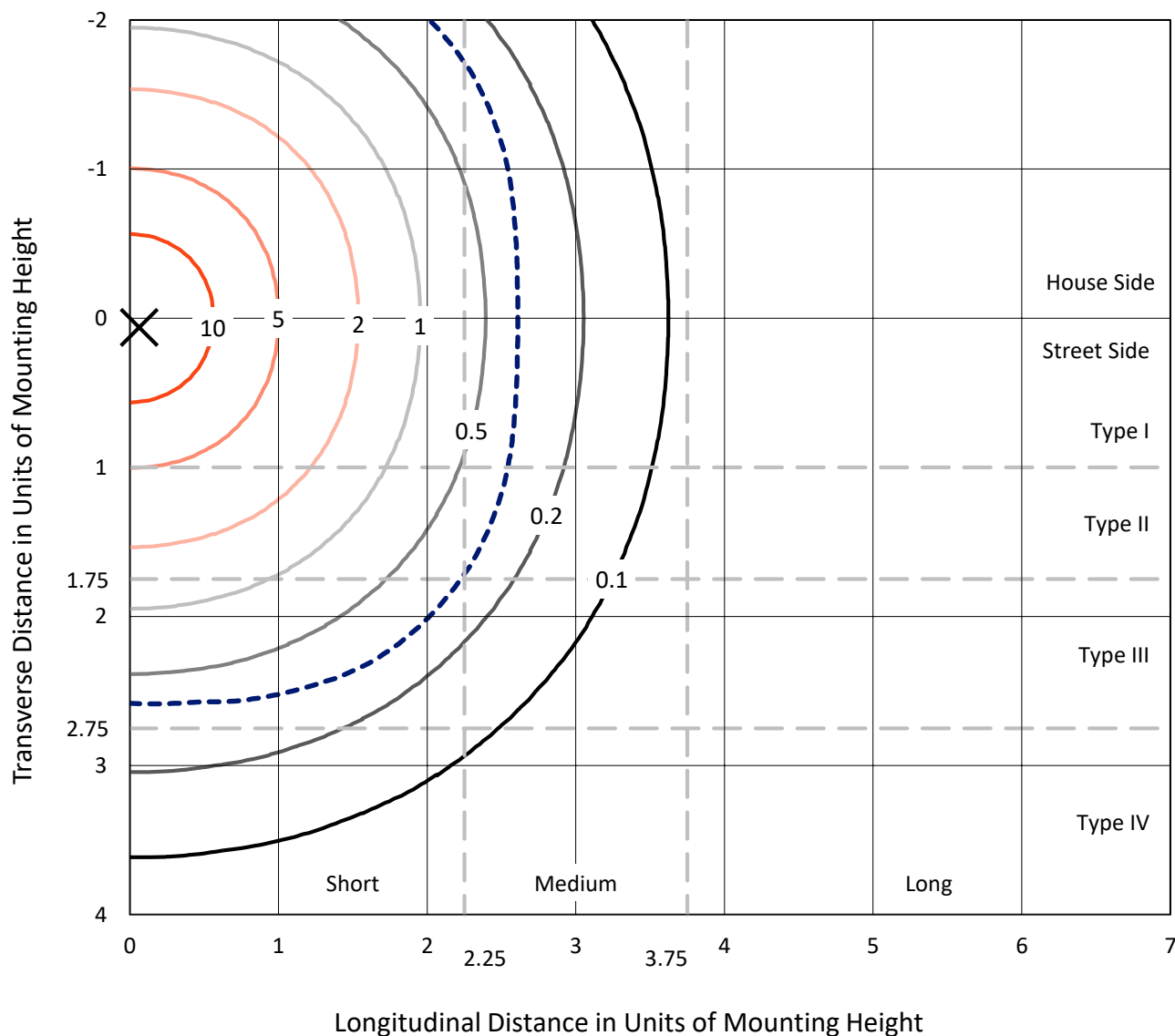


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

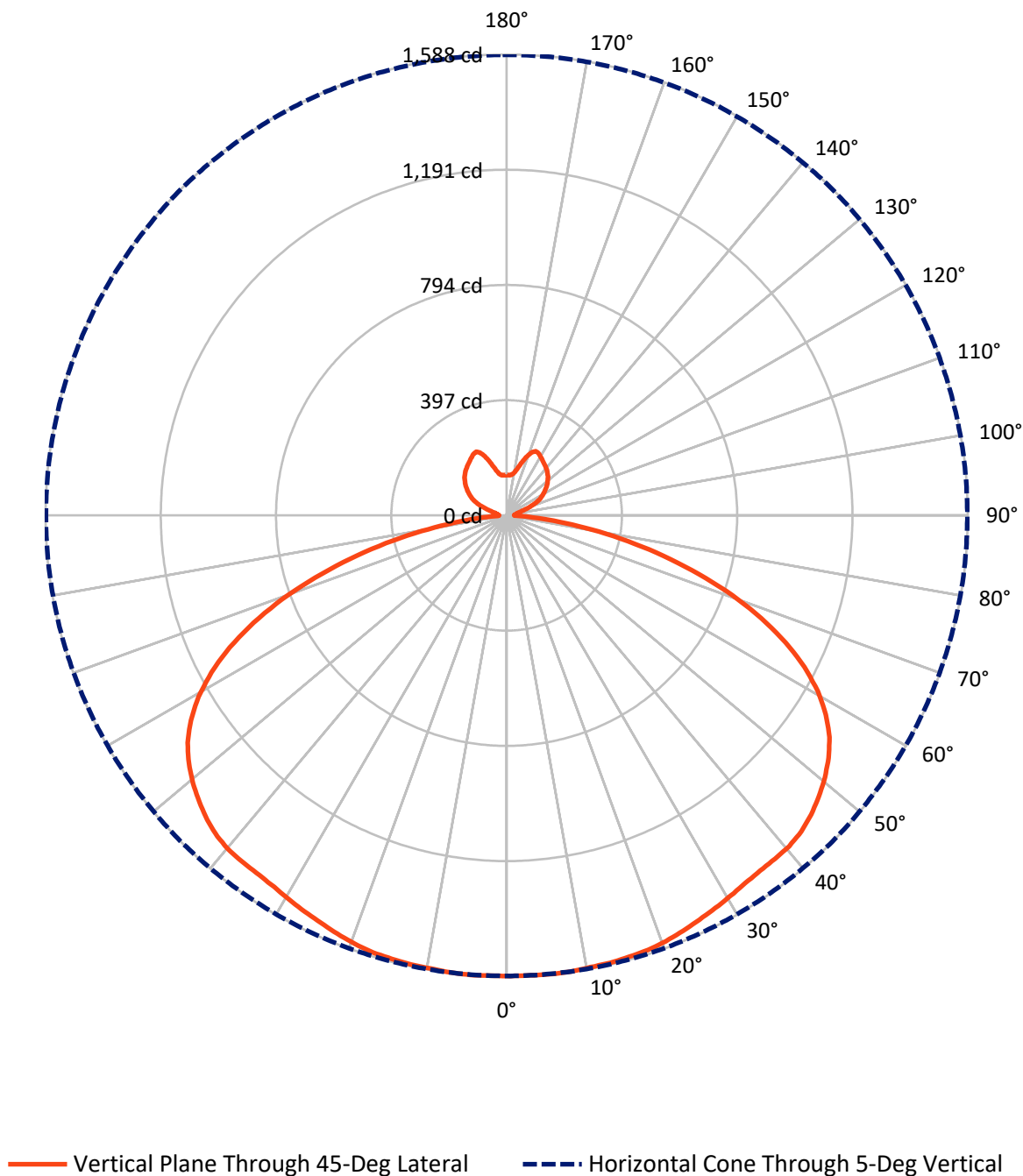


Based on 10 foot mounting height. Maximum calculated value = 15.9 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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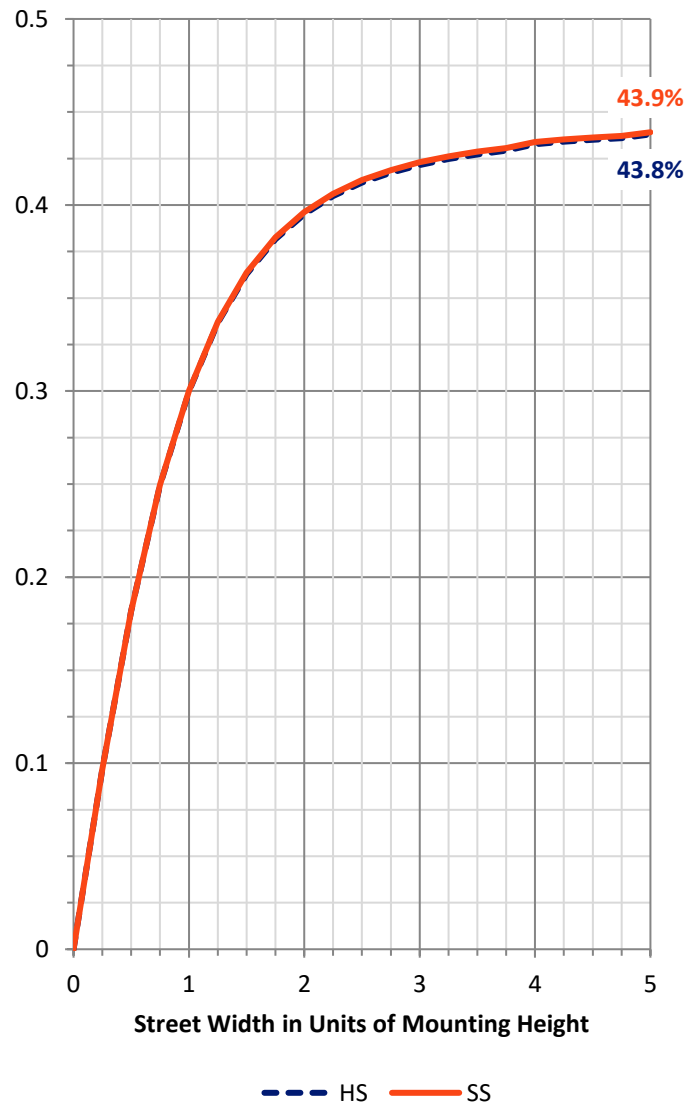
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3107.1	412.0	3519.1
	% Fixture	44.1	5.9	50.0
Street Side	Lumens	3107.1	412.0	3519.1
	% Fixture	44.1	5.9	50.0
Total	Lumens	6214.3	824.0	7038.2
	% Fixture	88.3	11.7	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.3	2.2
10°-20°	446.3	6.3
20°-30°	712.3	10.1
30°-40°	938.2	13.3
40°-50°	1116.0	15.9
50°-60°	1168.0	16.6
60°-70°	993.3	14.1
70°-80°	564.5	8.0
80°-90°	124.4	1.8
90°-100°	38.3	0.5
100°-110°	59.4	0.8
110°-120°	119.3	1.7
120°-130°	148.7	2.1
130°-140°	153.2	2.2
140°-150°	136.0	1.9
150°-160°	103.7	1.5
160°-170°	51.8	0.7
170°-180°	13.6	0.2
0°-90°	6214.3	88.3
0°-180°	7038.2	100.0

Coefficient of Utilization



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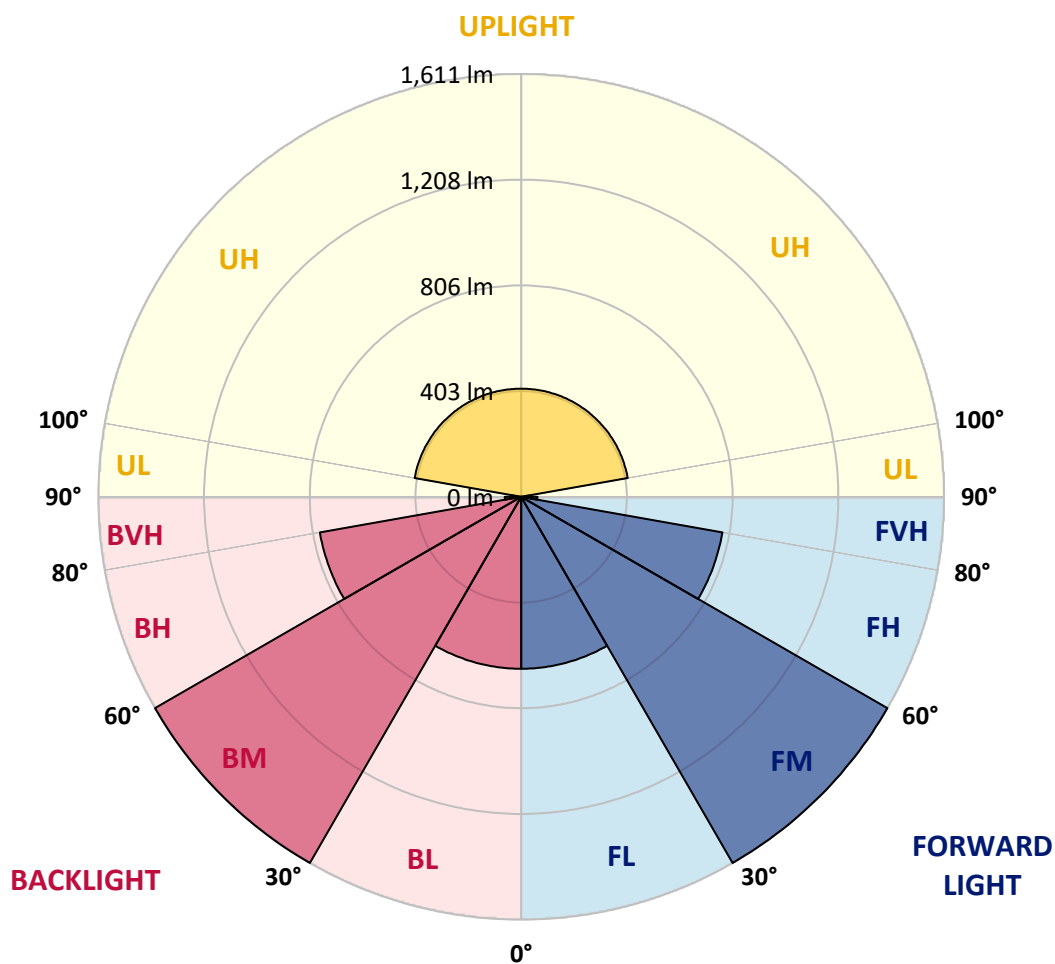
CATALOG NUMBER: TT-C3-LED-E1-CQ-MS/DIM-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	655.0	9.3			
FM	(30°-60°)	1611.1	22.9			
FH	(60°-80°)	778.9	11.1			G1/1800
FVH	(80°-90°)	62.2	0.9			G1/100
BL	(0°-30°)	655.0	9.3	B2/1000		
BM	(30°-60°)	1611.1	22.9	B2/2500		
BH	(60°-80°)	778.9	11.1	B2/1000		G1/1800
BVH	(80°-90°)	62.2	0.9			G1/100
UL	(90°-100°)	38.3	0.5		U2/50	
UH	(100°-180°)	412.0	5.9		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°	1586.6	1586.6	1586.6	1586.6	1586.6	1586.6	1586.6	1586.6	1586.6	1586.6	1586.6
2.5°	1586.6	1586.6	1586.6	1586.6	1586.6	1586.6	1586.6	1586.6	1586.6	1586.6	1586.6
5°	1586.6	1586.6	1586.6	1586.6	1586.6	1586.6	1586.6	1586.6	1586.6	1587.8	1586.6
7.5°	1585.4	1585.4	1585.4	1585.4	1586.6	1585.4	1585.4	1586.6	1586.6	1586.6	1586.6
10°	1582.9	1581.7	1581.7	1582.9	1582.9	1582.9	1582.9	1582.9	1584.1	1582.9	1582.9
12.5°	1579.2	1578.0	1579.2	1579.2	1579.2	1580.5	1580.5	1580.5	1581.7	1581.7	1580.5
15°	1575.6	1575.6	1575.6	1575.6	1575.6	1576.8	1576.8	1578.0	1578.0	1578.0	1578.0
17.5°	1570.7	1570.7	1570.7	1571.9	1571.9	1573.1	1573.1	1573.1	1574.3	1574.3	1574.3
20°	1562.1	1560.9	1562.1	1562.1	1563.3	1564.5	1564.5	1565.8	1565.8	1565.8	1565.8
22.5°	1549.8	1549.8	1551.1	1551.1	1552.3	1553.5	1553.5	1554.7	1554.7	1554.7	1554.7
25°	1537.6	1538.8	1538.8	1540.1	1540.1	1541.3	1542.5	1542.5	1542.5	1542.5	1542.5
27.5°	1525.4	1526.6	1526.6	1526.6	1527.8	1529.0	1530.3	1531.5	1532.7	1531.5	1531.5
30°	1511.9	1511.9	1513.1	1514.3	1515.6	1516.8	1519.2	1520.5	1521.7	1520.5	1520.5
32.5°	1497.2	1498.4	1499.7	1500.9	1503.3	1505.8	1508.2	1509.5	1510.7	1509.5	1509.5
35°	1486.2	1486.2	1488.6	1491.1	1493.5	1497.2	1499.7	1502.1	1504.6	1503.3	1502.1
37.5°	1475.2	1475.2	1477.6	1481.3	1486.2	1491.1	1496.0	1499.7	1500.9	1500.9	1499.7
40°	1461.7	1462.9	1465.4	1471.5	1478.8	1485.0	1491.1	1496.0	1498.4	1498.4	1496.0
42.5°	1447.0	1448.2	1451.9	1458.0	1466.6	1473.9	1481.3	1485.0	1488.6	1488.6	1486.2
45°	1426.2	1427.4	1432.3	1438.4	1447.0	1454.4	1462.9	1466.6	1471.5	1470.3	1469.1
47.5°	1399.3	1400.5	1405.4	1411.5	1420.1	1428.7	1437.2	1443.3	1447.0	1447.0	1445.8
50°	1366.2	1367.4	1372.3	1378.5	1389.5	1399.3	1407.8	1414.0	1420.1	1420.1	1418.9
52.5°	1324.6	1327.0	1330.7	1339.3	1351.5	1362.5	1373.6	1383.4	1387.0	1388.3	1387.0
55°	1273.2	1275.6	1280.5	1290.3	1303.8	1317.2	1329.5	1340.5	1345.4	1349.1	1346.6
57.5°	1213.2	1215.6	1221.8	1232.8	1247.5	1260.9	1276.9	1289.1	1292.8	1296.4	1295.2
60°	1142.2	1145.9	1152.0	1164.2	1178.9	1193.6	1208.3	1223.0	1226.7	1231.6	1229.1
62.5°	1058.9	1062.6	1068.7	1082.2	1098.1	1111.6	1128.7	1142.2	1145.9	1150.8	1149.5
65°	963.5	967.1	973.2	987.9	1002.6	1017.3	1033.2	1047.9	1051.6	1056.5	1055.3
67.5°	854.5	858.2	864.3	881.4	896.1	910.8	924.3	939.0	941.4	946.3	945.1
70°	739.4	744.3	749.2	765.1	778.6	790.8	805.5	817.8	822.7	825.1	822.7
72.5°	624.3	628.0	632.9	643.9	653.7	664.7	679.4	688.0	691.7	692.9	692.9
75°	505.6	509.3	509.3	521.5	528.9	535.0	547.2	553.3	555.8	558.2	558.2
77.5°	393.0	390.5	393.0	397.9	402.8	407.7	415.0	418.7	421.1	426.0	423.6
80°	275.4	276.7	277.9	281.6	284.0	285.2	290.1	291.4	292.6	297.5	295.0
82.5°	177.5	175.1	177.5	176.3	178.7	175.1	177.5	181.2	178.7	181.2	182.4
85°	93.0	89.4	89.4	90.6	91.8	89.4	90.6	89.4	89.4	91.8	90.6
87.5°	29.4	28.2	29.4	28.2	29.4	28.2	29.4	30.6	29.4	29.4	30.6
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°	1586.6	1586.6	1586.6	1586.6	1586.6	1586.6	1586.6	1586.6
2.5°	1586.6	1586.6	1586.6	1586.6	1586.6	1586.6	1586.6	1586.6
5°	1586.6	1586.6	1586.6	1586.6	1586.6	1586.6	1586.6	1586.6
7.5°	1585.4	1585.4	1585.4	1585.4	1585.4	1585.4	1584.1	1585.4
10°	1582.9	1582.9	1582.9	1582.9	1581.7	1581.7	1581.7	1581.7
12.5°	1580.5	1580.5	1579.2	1579.2	1579.2	1579.2	1578.0	1578.0
15°	1578.0	1576.8	1576.8	1575.6	1575.6	1575.6	1574.3	1575.6
17.5°	1574.3	1573.1	1573.1	1571.9	1571.9	1570.7	1570.7	1570.7
20°	1565.8	1564.5	1564.5	1563.3	1563.3	1562.1	1560.9	1560.9
22.5°	1553.5	1553.5	1553.5	1552.3	1551.1	1551.1	1549.8	1549.8
25°	1542.5	1541.3	1541.3	1540.1	1538.8	1538.8	1537.6	1537.6
27.5°	1531.5	1530.3	1529.0	1526.6	1526.6	1525.4	1524.1	1522.9
30°	1519.2	1516.8	1514.3	1513.1	1511.9	1509.5	1508.2	1507.0
32.5°	1507.0	1504.6	1502.1	1499.7	1496.0	1494.8	1492.3	1492.3
35°	1499.7	1496.0	1492.3	1487.4	1483.7	1480.1	1477.6	1476.4
37.5°	1496.0	1491.1	1485.0	1478.8	1472.7	1467.8	1464.2	1464.2
40°	1491.1	1485.0	1477.6	1469.1	1461.7	1455.6	1451.9	1450.7
42.5°	1481.3	1475.2	1465.4	1458.0	1448.2	1442.1	1437.2	1436.0
45°	1464.2	1458.0	1449.5	1439.7	1429.9	1422.5	1417.6	1416.4
47.5°	1442.1	1434.8	1425.0	1415.2	1405.4	1396.8	1391.9	1390.7
50°	1414.0	1406.6	1396.8	1387.0	1376.0	1367.4	1361.3	1361.3
52.5°	1382.1	1373.6	1362.5	1351.5	1339.3	1330.7	1324.6	1323.4
55°	1340.5	1330.7	1319.7	1307.5	1294.0	1284.2	1276.9	1275.6
57.5°	1289.1	1278.1	1265.8	1252.4	1238.9	1227.9	1219.3	1218.1
60°	1224.2	1212.0	1199.7	1186.3	1171.6	1159.3	1150.8	1148.3
62.5°	1144.6	1131.2	1117.7	1105.5	1089.5	1077.3	1068.7	1066.3
65°	1050.4	1039.4	1025.9	1011.2	994.1	981.8	973.2	972.0
67.5°	940.2	929.2	915.7	902.2	885.1	874.1	865.5	863.1
70°	819.0	809.2	798.2	784.7	770.0	759.0	750.4	749.2
72.5°	690.5	681.9	672.1	662.3	647.6	639.0	631.7	630.5
75°	558.2	549.7	542.3	535.0	524.0	517.8	510.5	510.5
77.5°	423.6	421.1	416.2	407.7	401.5	396.6	393.0	390.5
80°	296.3	293.8	291.4	286.5	282.8	281.6	279.1	276.7
82.5°	181.2	180.0	181.2	178.7	177.5	177.5	176.3	173.8
85°	91.8	93.0	91.8	90.6	90.6	90.6	90.6	89.4
87.5°	29.4	30.6	29.4	28.2	28.2	28.2	28.2	26.9
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-MS/DIM-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)