

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: INVUE

Report Number: P141284

Luminaire Tested: **EMM-F03-LED-E1-SL4-7030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141284
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33692)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: EMM-F03-LED-E1-SL4-7030
Description: EPIC MODERN MEDIUM DECORATIVE LED LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (21) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6386.7 lumens
Efficiency: N/A
Efficacy: 81.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

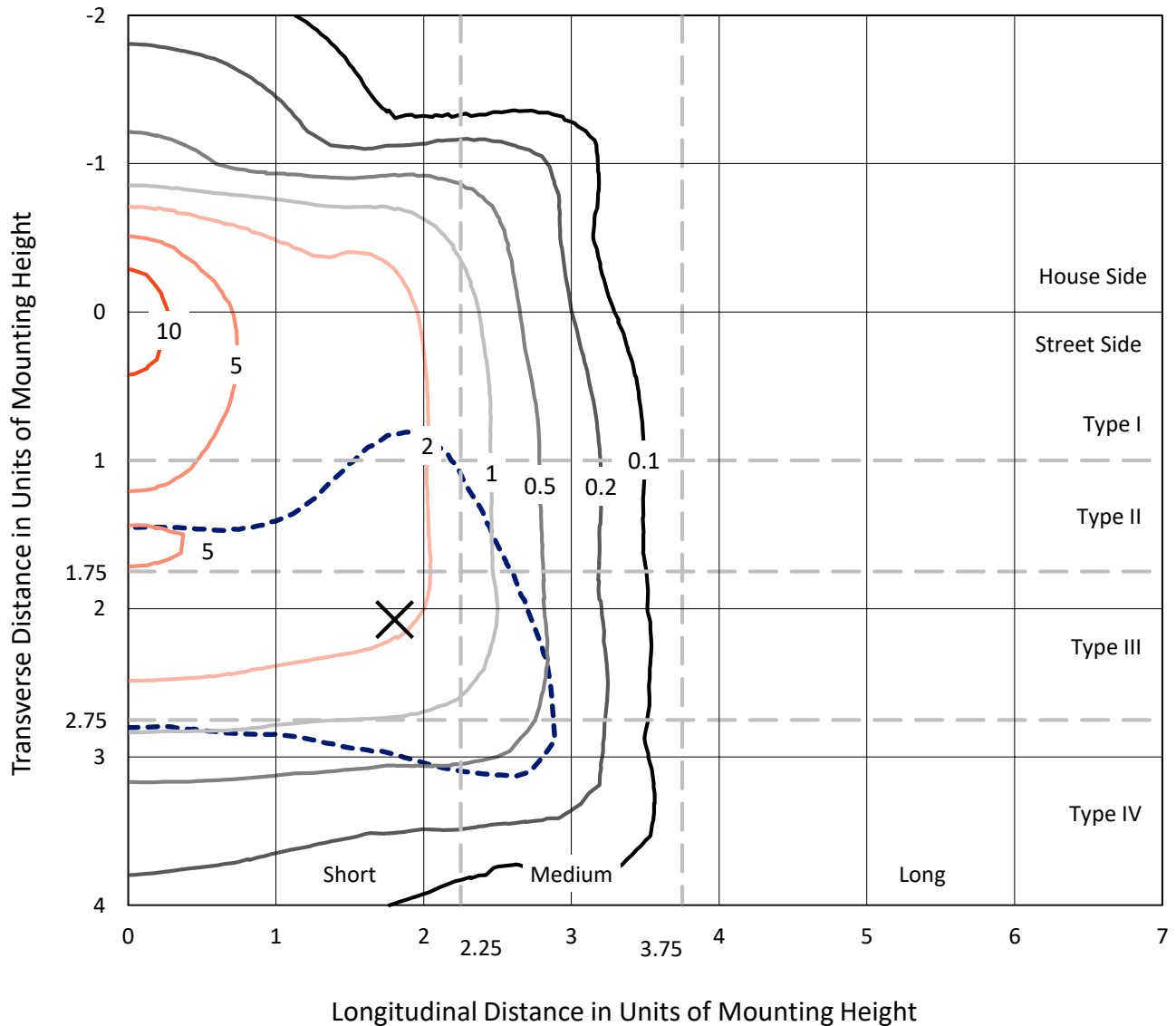
Input Watts (W): 78.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P141284
 CATALOG NUMBER: EMM-F03-LED-E1-SL4-7030

Iso-Footcandle Lines of Horizontal Illumination

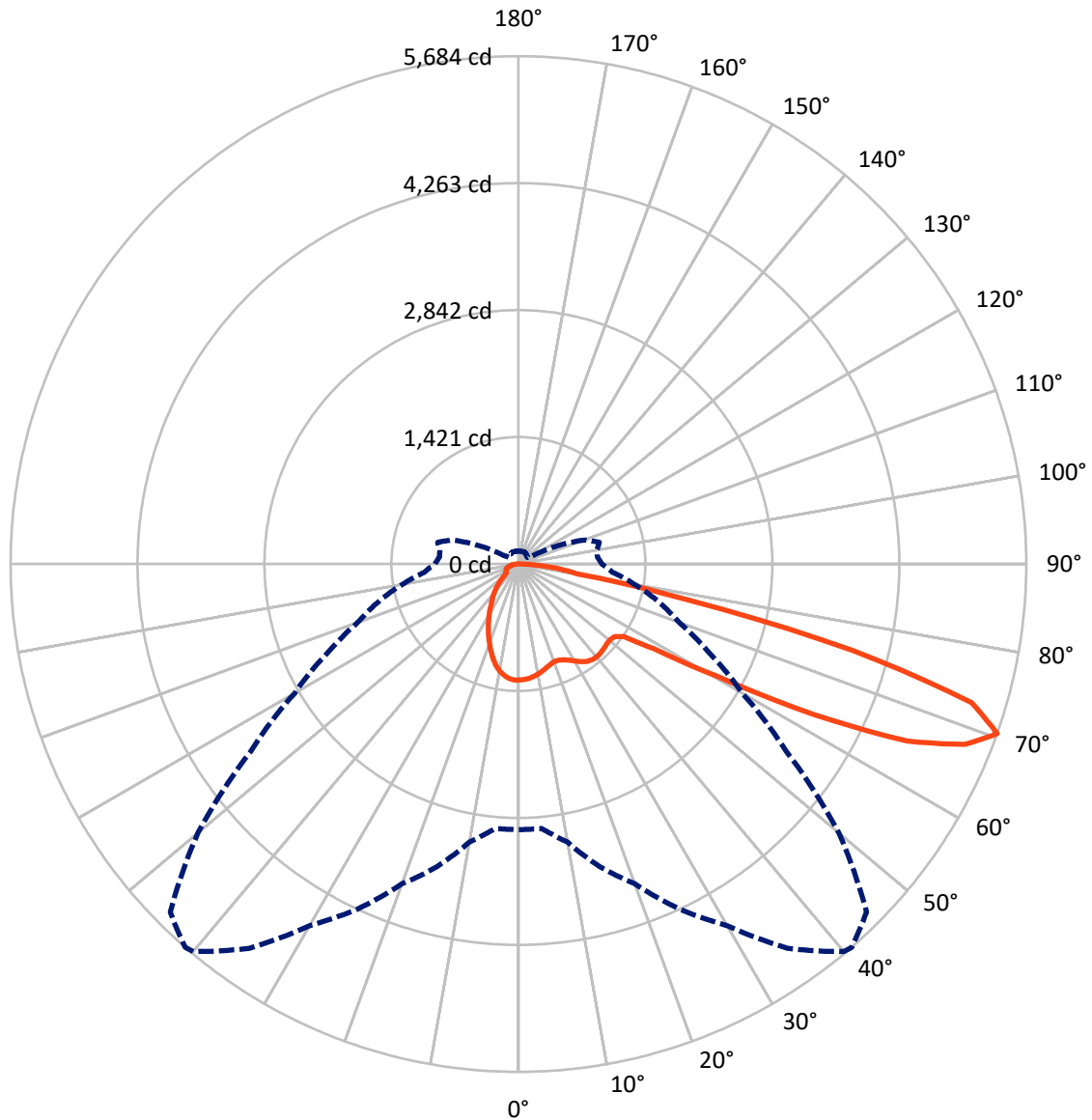
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 13 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P141284
CATALOG NUMBER: EMM-F03-LED-E1-SL4-7030

Luminous Intensity Polar Plot



— Vertical Plane Through 41-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P141284

CATALOG NUMBER: EMM-F03-LED-E1-SL4-7030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1370.3	0.0	1370.3
	% Fixture	21.5	0.0	21.5
Street Side	Lumens	5016.4	0.0	5016.4
	% Fixture	78.5	0.0	78.5
Total	Lumens	6386.7	0.0	6386.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.7	1.9
10°-20°	323.7	5.1
20°-30°	467.9	7.3
30°-40°	595.6	9.3
40°-50°	701.8	11.0
50°-60°	1073.9	16.8
60°-70°	1995.9	31.3
70°-80°	963.3	15.1
80°-90°	143.9	2.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	6386.7	100.0
0°-180°	6386.7	100.0



REPORT NUMBER: P141284

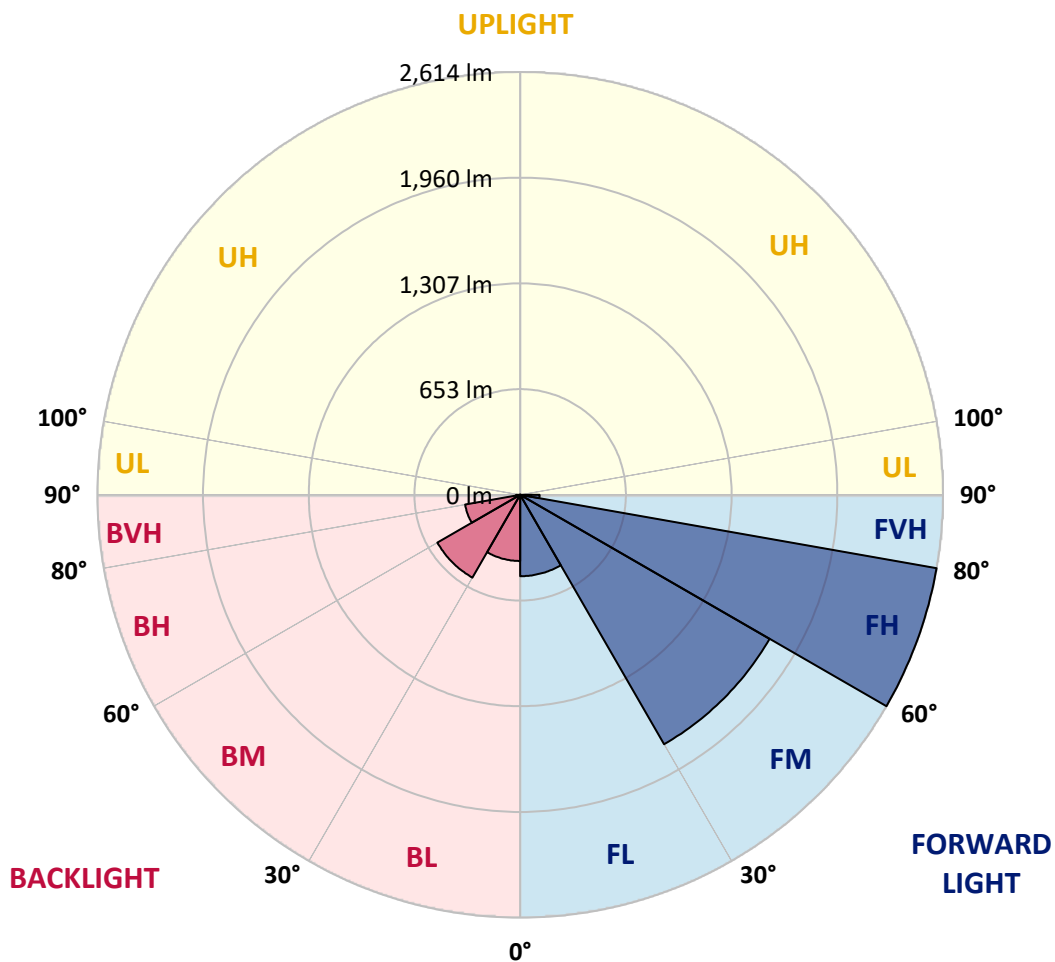
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	503.0	7.9			
FM (30°-60°)	1780.1	27.9			
FH (60°-80°)	2613.7	40.9			G2/5000
FVH (80°-90°)	119.6	1.9			G2/225
BL (0°-30°)	409.3	6.4	B1/500		
BM (30°-60°)	591.2	9.3	B1/1000		
BH (60°-80°)	345.5	5.4	B1/500		G1/500
BVH (80°-90°)	24.3	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short





REPORT NUMBER: P141284

CATALOG NUMBER: EMM-F03-LED-E1-SL4-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	41°	45°
0°	1297.6	1297.6	1297.6	1297.6	1297.6	1297.6	1297.6	1297.6	1297.6	1297.6	1297.6
2.5°	1297.6	1299.1	1298.4	1296.9	1295.4	1296.1	1295.4	1294.6	1294.6	1293.9	1293.1
5°	1291.6	1294.6	1292.3	1290.8	1288.6	1288.6	1287.8	1286.3	1284.8	1284.1	1282.5
7.5°	1278.8	1281.8	1280.3	1278.8	1276.5	1275.0	1272.0	1270.5	1269.0	1268.2	1266.0
10°	1261.4	1262.9	1261.4	1258.4	1256.9	1256.2	1254.6	1251.6	1248.6	1247.1	1244.8
12.5°	1238.8	1239.6	1238.1	1236.5	1234.3	1234.3	1232.0	1229.8	1225.2	1223.7	1218.5
15°	1219.2	1216.9	1215.4	1214.7	1213.9	1210.2	1210.9	1207.1	1199.6	1197.3	1191.3
17.5°	1213.9	1211.7	1210.9	1208.7	1207.1	1202.6	1198.1	1190.6	1177.7	1175.5	1166.4
20°	1229.0	1229.0	1226.7	1225.2	1223.0	1214.7	1204.9	1190.6	1167.2	1161.9	1150.6
22.5°	1265.2	1261.4	1259.9	1259.9	1259.2	1247.1	1229.0	1206.4	1175.5	1168.7	1149.1
25°	1321.8	1315.0	1317.2	1316.5	1315.0	1297.6	1271.2	1238.8	1196.6	1187.5	1161.9
27.5°	1388.9	1390.4	1389.6	1386.6	1382.1	1363.2	1325.5	1281.8	1229.0	1220.0	1186.8
30°	1459.0	1460.5	1465.0	1462.7	1459.7	1431.1	1384.3	1336.8	1272.7	1260.7	1220.0
32.5°	1540.4	1545.7	1549.5	1550.2	1538.1	1498.9	1443.9	1383.6	1315.7	1303.7	1253.1
35°	1634.7	1631.6	1638.4	1635.4	1614.3	1560.8	1492.9	1421.3	1351.9	1336.1	1281.8
37.5°	1729.7	1733.4	1726.6	1713.8	1680.7	1610.5	1526.8	1446.2	1369.3	1354.2	1297.6
40°	1821.6	1819.4	1803.6	1781.7	1731.9	1642.2	1545.7	1457.5	1375.3	1359.5	1301.4
42.5°	1890.3	1884.2	1860.1	1824.7	1760.6	1657.3	1551.0	1457.5	1371.5	1354.9	1296.1
45°	1920.4	1914.4	1891.0	1845.8	1769.6	1654.3	1541.9	1444.7	1358.7	1344.4	1285.6
47.5°	1920.4	1918.2	1892.5	1848.8	1767.4	1646.0	1528.3	1428.8	1345.9	1331.6	1276.5
50°	1905.3	1903.8	1881.2	1838.2	1759.8	1641.4	1524.6	1425.8	1345.1	1330.8	1280.3
52.5°	1955.9	1946.1	1922.7	1872.9	1787.7	1660.3	1543.4	1440.9	1363.2	1348.9	1296.9
55°	2570.4	2562.1	2443.7	2235.6	2017.7	1818.6	1648.2	1530.6	1452.2	1430.3	1392.6
57.5°	3564.1	3552.1	3430.7	3241.4	2866.7	2440.7	2106.7	1910.6	1800.5	1784.7	1762.1
60°	3967.5	3963.0	3911.7	3834.8	3693.1	3472.9	3162.2	2836.5	2583.2	2542.5	2545.5
62.5°	4199.0	4187.7	4162.8	4143.9	4095.7	4006.0	3947.9	3856.7	3733.8	3705.9	3529.4
65°	4328.7	4327.2	4340.7	4356.6	4353.6	4380.7	4410.1	4584.3	4788.6	4779.6	4593.3
67.5°	4135.7	4148.5	4219.3	4327.9	4441.8	4562.4	4787.1	5136.2	5388.8	5388.8	5225.2
70°	2973.0	2970.7	3159.2	3503.1	3809.2	4260.1	4674.0	5249.3	5662.5	5684.4	5510.9
72.5°	1781.7	1823.2	1939.3	2095.3	2355.5	2901.4	3671.2	4704.9	5281.7	5305.1	5097.7
75°	1251.6	1220.7	1216.2	1225.2	1269.7	1403.9	1827.7	2887.8	3828.8	3865.0	3664.4
77.5°	800.7	794.0	797.0	806.8	809.0	821.9	842.2	990.0	1774.9	1948.3	1939.3
80°	690.7	688.4	689.2	677.8	656.0	647.7	673.3	653.0	634.1	660.5	624.3
82.5°	463.0	471.2	484.8	502.9	546.6	561.7	553.4	549.7	490.1	476.5	423.0
85°	343.1	338.5	343.8	343.8	332.5	321.2	329.5	321.2	284.3	266.2	235.2
87.5°	185.5	186.2	201.3	207.3	206.6	176.4	145.5	125.9	113.9	105.6	89.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P141284

CATALOG NUMBER: EMM-F03-LED-E1-SL4-7030

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1297.6	1297.6	1297.6	1297.6	1297.6	1297.6	1297.6	1297.6	1297.6	1297.6	1297.6
2.5°	1293.9	1291.6	1292.3	1292.3	1291.6	1293.1	1290.8	1290.1	1290.8	1290.8	1290.8
5°	1281.0	1278.0	1278.0	1277.3	1275.8	1275.8	1272.7	1272.0	1270.5	1272.7	1271.2
7.5°	1262.9	1258.4	1254.6	1251.6	1250.1	1247.9	1244.1	1242.6	1241.1	1240.3	1238.8
10°	1241.1	1235.8	1228.3	1222.2	1219.2	1213.2	1208.7	1202.6	1202.6	1199.6	1196.6
12.5°	1214.7	1207.1	1199.6	1191.3	1186.0	1177.7	1170.2	1163.4	1158.1	1151.3	1146.8
15°	1188.3	1177.0	1168.7	1160.4	1150.6	1139.3	1130.2	1119.7	1109.9	1099.3	1096.3
17.5°	1159.6	1150.6	1143.1	1133.3	1122.7	1109.1	1097.1	1079.7	1067.7	1054.8	1045.0
20°	1140.8	1130.2	1121.9	1112.9	1101.6	1085.8	1069.9	1050.3	1032.2	1013.4	999.0
22.5°	1131.0	1113.6	1106.1	1097.8	1086.5	1069.2	1051.1	1026.9	1004.3	979.4	956.8
25°	1134.8	1111.4	1096.3	1087.3	1077.5	1060.1	1036.7	1009.6	984.0	952.3	926.7
27.5°	1151.3	1119.7	1096.3	1081.2	1070.7	1052.6	1028.4	997.5	966.6	933.4	902.5
30°	1173.2	1133.3	1103.1	1081.2	1065.4	1045.8	1019.4	986.2	952.3	915.3	879.9
32.5°	1198.1	1149.1	1112.9	1082.7	1057.1	1032.2	1005.1	970.4	935.0	895.7	861.1
35°	1217.7	1161.1	1119.7	1079.7	1045.8	1014.9	983.2	950.8	915.3	878.4	841.5
37.5°	1229.0	1168.7	1119.7	1069.2	1027.7	995.3	962.1	930.4	896.5	860.3	827.9
40°	1233.5	1171.7	1115.2	1057.1	1008.8	971.9	941.0	908.6	878.4	846.7	818.1
42.5°	1231.3	1169.4	1109.1	1045.8	993.8	953.8	919.9	889.7	864.8	838.4	814.3
45°	1222.2	1161.9	1103.1	1040.5	988.5	947.8	913.1	884.4	861.1	836.9	818.1
47.5°	1214.7	1158.9	1106.9	1053.3	1003.6	962.1	924.4	892.7	873.1	854.3	842.2
50°	1220.7	1167.2	1115.2	1064.6	1016.4	974.2	935.7	906.3	895.0	892.0	888.2
52.5°	1237.3	1184.5	1140.8	1105.4	1083.5	1067.7	1028.4	1021.7	1011.9	1006.6	993.8
55°	1345.1	1323.3	1362.5	1405.4	1413.0	1460.5	1479.3	1480.8	1464.3	1405.4	1268.2
57.5°	1783.9	1838.2	1854.8	1954.4	1981.5	1960.4	1931.7	1930.2	1879.0	1801.3	1601.5
60°	2568.1	2539.5	2504.0	2439.2	2378.1	2312.5	2222.0	2152.7	2087.1	1967.9	1757.6
62.5°	3388.4	3138.9	2957.2	2770.9	2620.1	2488.2	2357.0	2245.4	2139.1	1974.0	1748.5
65°	4100.2	3592.0	3223.3	2943.6	2709.9	2516.8	2342.7	2190.4	2056.1	1849.5	1621.1
67.5°	4563.2	3832.5	3281.4	2863.7	2533.4	2287.6	2031.3	1790.7	1658.8	1492.2	1376.0
70°	4681.5	3662.9	2893.8	2358.5	1913.6	1620.3	1318.0	1055.6	934.2	887.5	891.2
72.5°	4223.1	2895.3	2051.6	1500.4	1174.7	931.2	757.0	582.1	454.7	381.5	372.5
75°	2758.9	1611.3	974.2	678.6	539.9	429.8	338.5	285.0	245.8	198.3	165.9
77.5°	1042.8	613.8	437.3	356.6	263.9	184.0	143.3	120.6	110.8	107.8	97.3
80°	534.6	426.0	304.6	200.6	140.2	112.3	94.2	79.9	73.9	70.9	72.4
82.5°	360.4	268.4	168.1	120.6	97.3	83.7	66.4	55.8	49.8	49.0	52.8
85°	200.6	134.2	98.0	81.4	71.6	62.6	50.5	41.5	38.5	40.7	47.5
87.5°	62.6	61.8	44.5	36.2	37.7	32.4	24.1	18.1	18.1	23.4	33.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P141284

CATALOG NUMBER: EMM-F03-LED-E1-SL4-7030

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1297.6	1297.6	1297.6	1297.6	1297.6	1297.6	1297.6	1297.6	1297.6	1297.6	1297.6
2.5°	1290.8	1292.3	1295.4	1293.1	1293.9	1294.6	1296.9	1299.9	1297.6	1296.1	1300.6
5°	1272.7	1272.7	1276.5	1275.0	1278.0	1281.0	1282.5	1287.8	1286.3	1284.8	1290.8
7.5°	1239.6	1240.3	1245.6	1244.1	1250.1	1250.9	1256.9	1261.4	1261.4	1264.4	1269.7
10°	1197.3	1197.3	1201.9	1202.6	1206.4	1209.4	1216.2	1224.5	1226.0	1231.3	1238.8
12.5°	1149.8	1148.3	1152.1	1152.1	1155.1	1158.9	1166.4	1176.2	1177.7	1186.0	1195.8
15°	1091.0	1088.8	1087.3	1088.8	1090.3	1091.0	1102.3	1112.1	1118.2	1127.2	1137.0
17.5°	1034.5	1026.2	1022.4	1022.4	1023.2	1023.2	1027.7	1039.0	1047.3	1061.6	1075.9
20°	984.0	969.6	964.4	952.3	950.0	944.8	948.5	961.3	976.4	987.7	999.0
22.5°	936.5	921.4	906.3	892.0	880.7	873.9	880.7	889.0	894.2	903.3	906.3
25°	900.3	875.4	854.3	831.7	819.6	813.6	812.8	812.1	807.5	806.0	806.0
27.5°	871.6	842.2	810.5	785.7	769.1	757.8	744.9	735.9	724.6	709.5	702.0
30°	847.5	815.8	781.1	751.7	730.6	708.8	682.4	662.0	641.6	623.6	607.7
32.5°	825.6	793.2	759.3	728.4	692.2	654.5	621.3	597.2	561.7	537.6	517.2
35°	809.0	776.6	744.9	704.2	654.5	606.2	563.2	527.8	491.6	459.9	432.8
37.5°	797.0	769.8	735.9	680.9	618.3	560.2	515.0	472.8	429.8	386.8	352.9
40°	793.2	769.8	726.8	655.2	583.6	521.0	469.0	417.0	369.5	323.5	288.8
42.5°	795.5	770.6	712.5	632.6	554.9	487.1	428.3	367.9	311.4	262.4	227.7
45°	803.8	770.6	697.4	607.7	528.5	456.2	386.0	314.4	248.8	209.6	194.5
47.5°	828.6	775.9	685.4	589.6	505.2	422.2	338.5	257.1	201.3	184.7	184.7
50°	867.1	791.7	683.9	576.1	478.8	383.0	279.7	202.8	177.9	177.2	181.7
52.5°	932.7	819.6	691.4	567.0	450.9	330.2	217.9	174.9	169.6	174.2	181.0
55°	1060.1	868.6	702.0	550.4	404.1	258.6	178.7	165.9	168.1	173.4	179.5
57.5°	1293.1	967.4	713.3	515.0	327.2	196.0	162.1	162.9	166.6	171.9	177.2
60°	1453.7	1089.5	735.9	455.4	243.5	162.1	155.3	161.4	165.9	169.6	174.2
62.5°	1467.3	1134.0	752.5	388.3	181.0	147.8	149.3	158.3	164.4	165.9	168.1
65°	1385.8	1076.7	705.0	320.4	150.0	140.2	145.5	153.8	159.8	160.6	162.9
67.5°	1207.9	956.8	601.7	243.5	137.2	135.0	141.0	146.3	150.8	154.6	157.6
70°	935.7	781.1	484.1	189.3	127.4	126.7	131.9	138.0	142.5	146.3	150.8
72.5°	493.1	554.9	360.4	151.6	116.9	117.6	122.9	128.2	131.2	135.0	139.5
75°	153.1	235.2	222.4	121.4	104.1	107.1	110.1	114.6	119.9	122.1	124.4
77.5°	90.5	95.8	116.1	95.0	90.5	92.7	96.5	100.3	104.1	107.1	109.3
80°	73.1	74.6	75.4	75.4	75.4	78.4	81.4	86.7	89.7	91.2	92.0
82.5°	57.3	61.1	61.8	60.3	62.6	65.6	67.1	70.1	70.9	72.4	73.9
85°	47.5	46.7	48.3	49.0	46.0	46.0	44.5	44.5	47.5	52.8	53.5
87.5°	36.9	32.4	26.4	24.9	23.4	21.9	20.4	20.4	21.1	24.1	26.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P141284

CATALOG NUMBER: EMM-F03-LED-E1-SL4-7030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	1297.6	1297.6	1297.6	1297.6	1297.6
2.5°	1300.6	1299.9	1301.4	1303.7	1302.1
5°	1291.6	1291.6	1294.6	1296.9	1295.4
7.5°	1273.5	1274.2	1278.8	1281.8	1280.3
10°	1244.8	1246.4	1251.6	1256.2	1258.4
12.5°	1201.9	1207.1	1213.9	1218.5	1218.5
15°	1147.6	1155.9	1163.4	1170.2	1166.4
17.5°	1085.8	1095.6	1105.4	1109.1	1105.4
20°	1011.1	1011.9	1017.9	1021.7	1020.2
22.5°	909.3	906.3	909.3	910.8	913.1
25°	805.3	800.0	797.0	801.5	803.8
27.5°	699.0	691.4	693.7	688.4	682.4
30°	595.7	588.9	580.6	578.3	582.1
32.5°	504.4	487.1	480.3	467.5	472.8
35°	407.9	390.6	374.0	369.5	366.4
37.5°	328.7	307.6	287.3	280.5	279.0
40°	257.1	239.8	226.2	222.4	220.9
42.5°	208.9	201.3	199.1	199.1	199.8
45°	190.8	191.5	193.8	195.3	196.0
47.5°	187.0	190.0	193.0	196.0	196.8
50°	187.0	189.3	191.5	194.5	195.3
52.5°	185.5	187.7	188.5	190.0	191.5
55°	184.0	184.7	184.7	185.5	187.0
57.5°	180.2	181.0	179.5	180.2	183.2
60°	176.4	177.2	175.7	177.2	177.9
62.5°	171.2	171.2	170.4	171.2	171.9
65°	165.1	162.9	164.4	163.6	164.4
67.5°	157.6	154.6	153.8	153.8	154.6
70°	147.0	144.8	144.0	145.5	147.0
72.5°	134.2	135.7	138.0	140.2	144.0
75°	125.2	127.4	130.4	138.0	143.3
77.5°	112.3	111.6	114.6	122.9	130.4
80°	93.5	94.2	93.5	95.8	97.3
82.5°	71.6	70.9	68.6	68.6	67.1
85°	50.5	48.3	45.2	44.5	43.7
87.5°	25.6	27.1	24.9	22.6	22.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)