

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: P141247

Luminaire Tested: **ECM-F03-LED-E1-SL4-7060**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141247
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: ECM-F03-LED-E1-SL4-7060
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (21) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7175.1 lumens
Efficiency: N/A
Efficacy: 91.6 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

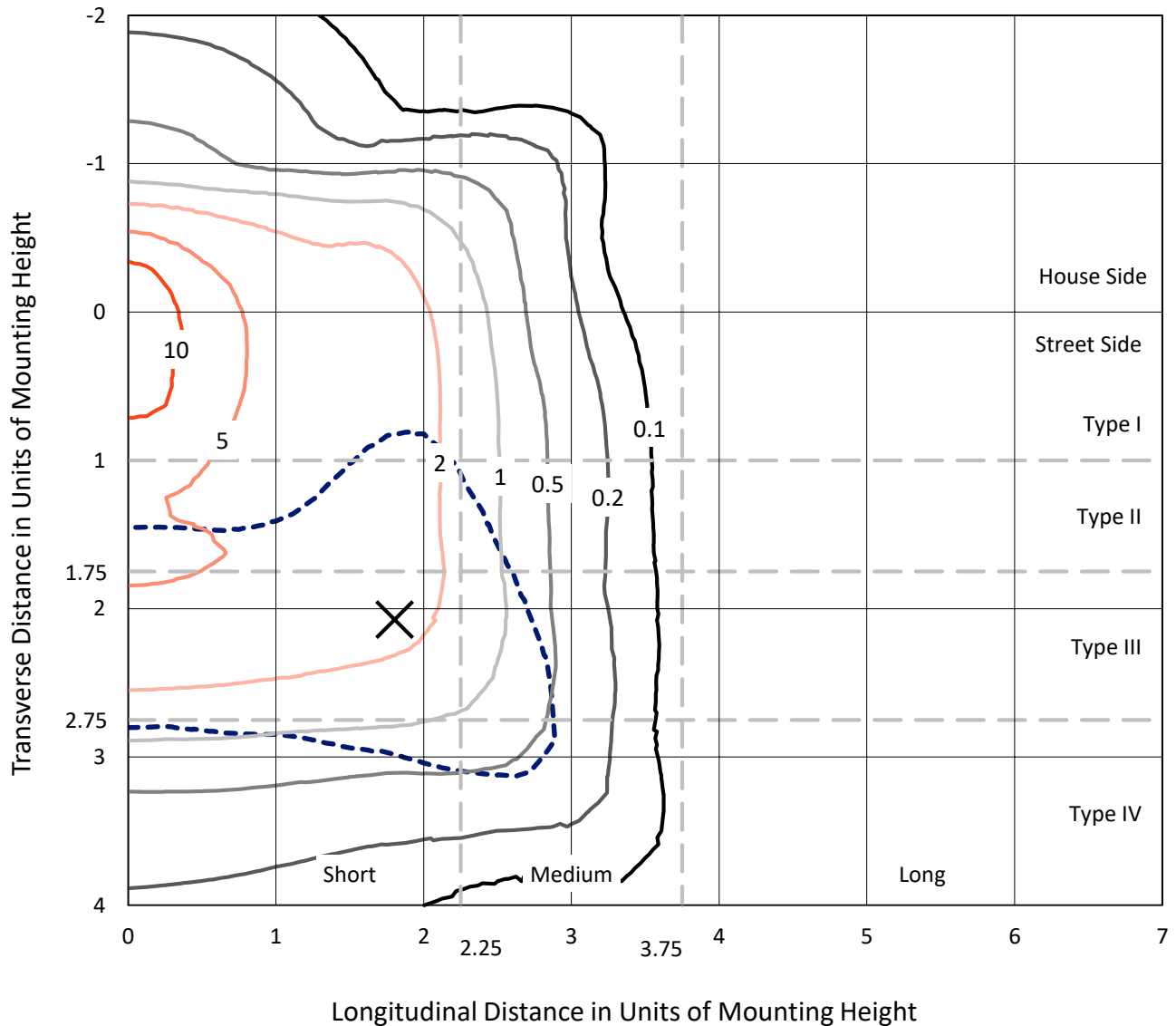
Input Watts (W): 78.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P141247
 CATALOG NUMBER: ECM-F03-LED-E1-SL4-7060

Iso-Footcandle Lines of Horizontal Illumination

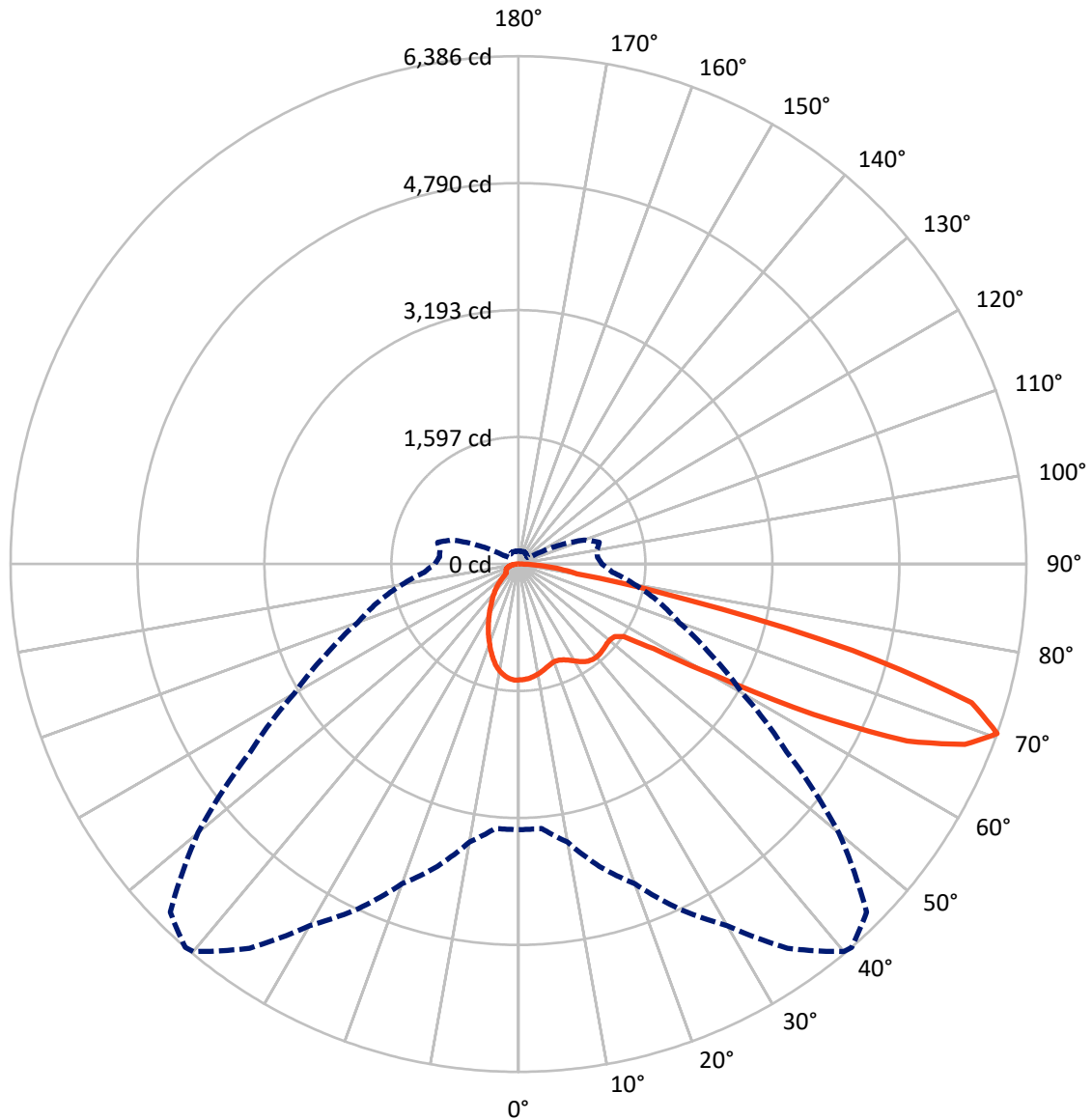
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14.6 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P141247
CATALOG NUMBER: ECM-F03-LED-E1-SL4-7060

Luminous Intensity Polar Plot



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

REPORT NUMBER: P141247

CATALOG NUMBER: ECM-F03-LED-E1-SL4-7060

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1539.4	0.0	1539.4
	% Fixture	21.5	0.0	21.5
Street Side	Lumens	5635.7	0.0	5635.7
	% Fixture	78.5	0.0	78.5
Total	Lumens	7175.1	0.0	7175.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.6	1.9
10°-20°	363.6	5.1
20°-30°	525.7	7.3
30°-40°	669.1	9.3
40°-50°	788.5	11.0
50°-60°	1206.4	16.8
60°-70°	2242.3	31.3
70°-80°	1082.2	15.1
80°-90°	161.6	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°	7175.1	100.0
0°-180°	7175.1	100.0



REPORT NUMBER: P141247

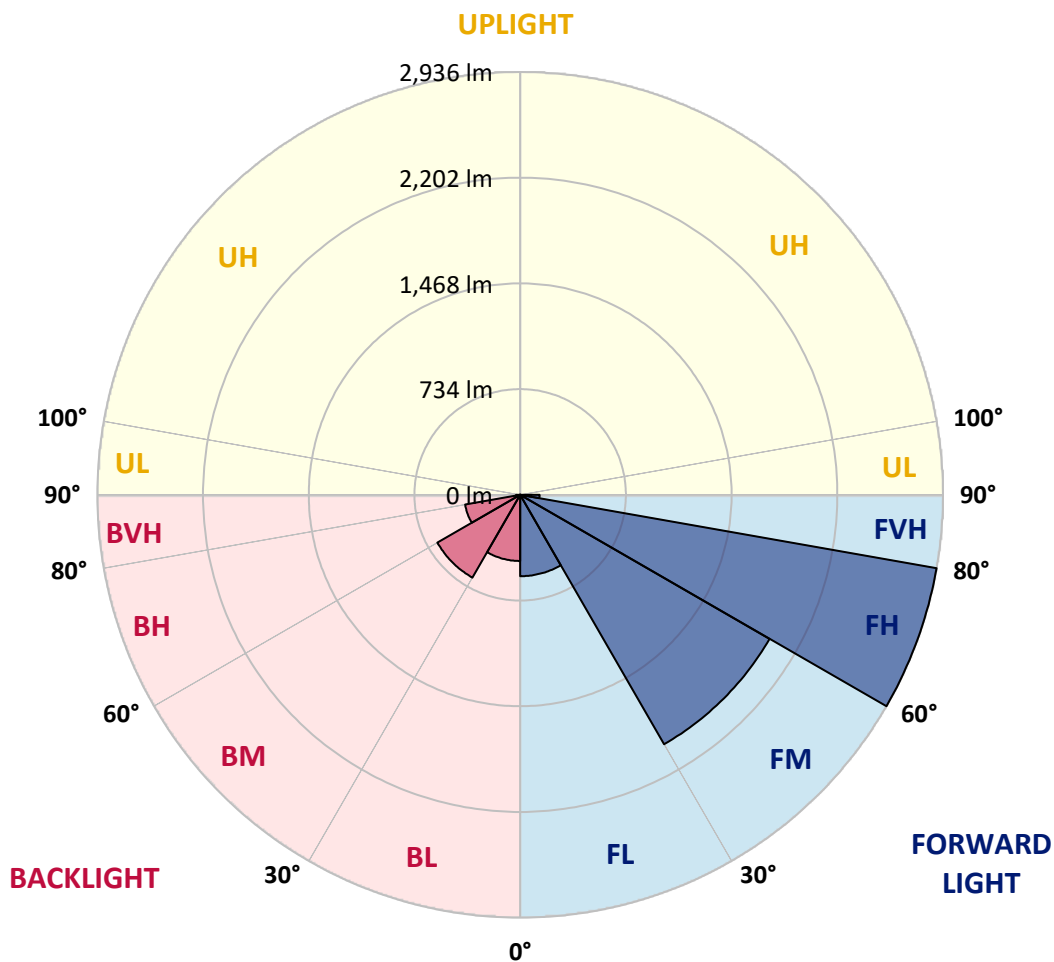
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	565.1	7.9			
FM	(30°-60°)	1999.8	27.9			
FH	(60°-80°)	2936.4	40.9			G2/5000
FVH	(80°-90°)	134.4	1.9			G2/225
BL	(0°-30°)	459.8	6.4	B1/500		
BM	(30°-60°)	664.1	9.3	B1/1000		
BH	(60°-80°)	388.2	5.4	B1/500		G1/500
BVH	(80°-90°)	27.3	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: P141247

CATALOG NUMBER: ECM-F03-LED-E1-SL4-7060

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	41°	45°
0°	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8
2.5°	1457.8	1459.5	1458.7	1457.0	1455.3	1456.1	1455.3	1454.4	1454.4	1453.6	1452.7
5°	1451.0	1454.4	1451.9	1450.2	1447.7	1447.7	1446.8	1445.1	1443.4	1442.6	1440.9
7.5°	1436.6	1440.0	1438.3	1436.6	1434.1	1432.4	1429.0	1427.3	1425.6	1424.8	1422.2
10°	1417.2	1418.9	1417.2	1413.8	1412.1	1411.2	1409.5	1406.1	1402.8	1401.1	1398.5
12.5°	1391.7	1392.6	1390.9	1389.2	1386.7	1386.7	1384.1	1381.6	1376.5	1374.8	1368.9
15°	1369.7	1367.2	1365.5	1364.6	1363.8	1359.6	1360.4	1356.2	1347.7	1345.2	1338.4
17.5°	1363.8	1361.3	1360.4	1357.9	1356.2	1351.1	1346.0	1337.5	1323.1	1320.6	1310.4
20°	1380.7	1380.7	1378.2	1376.5	1374.0	1364.6	1353.6	1337.5	1311.3	1305.3	1292.6
22.5°	1421.4	1417.2	1415.5	1415.5	1414.6	1401.1	1380.7	1355.3	1320.6	1313.0	1290.9
25°	1484.9	1477.3	1479.8	1479.0	1477.3	1457.8	1428.2	1391.7	1344.3	1334.1	1305.3
27.5°	1560.3	1562.0	1561.2	1557.8	1552.7	1531.5	1489.2	1440.0	1380.7	1370.6	1333.3
30°	1639.1	1640.8	1645.9	1643.3	1639.9	1607.7	1555.2	1501.9	1429.9	1416.3	1370.6
32.5°	1730.6	1736.5	1740.7	1741.6	1728.0	1684.0	1622.1	1554.4	1478.1	1464.6	1407.8
35°	1836.5	1833.1	1840.7	1837.3	1813.6	1753.4	1677.2	1596.7	1518.8	1501.0	1440.0
37.5°	1943.2	1947.4	1939.8	1925.4	1888.1	1809.4	1715.3	1624.7	1538.3	1521.3	1457.8
40°	2046.5	2044.0	2026.2	2001.6	1945.7	1844.9	1736.5	1637.4	1545.1	1527.3	1462.1
42.5°	2123.6	2116.8	2089.7	2049.9	1977.9	1861.9	1742.4	1637.4	1540.8	1522.2	1456.1
45°	2157.5	2150.7	2124.5	2073.6	1988.1	1858.5	1732.3	1623.0	1526.4	1510.3	1444.3
47.5°	2157.5	2155.0	2126.2	2077.0	1985.5	1849.2	1717.0	1605.2	1512.0	1495.9	1434.1
50°	2140.6	2138.9	2113.5	2065.2	1977.1	1844.1	1712.8	1601.8	1511.2	1495.1	1438.3
52.5°	2197.3	2186.3	2160.0	2104.1	2008.4	1865.3	1734.0	1618.8	1531.5	1515.4	1457.0
55°	2887.7	2878.4	2745.4	2511.6	2266.8	2043.1	1851.7	1719.6	1631.5	1606.9	1564.5
57.5°	4004.1	3990.6	3854.2	3641.6	3220.6	2742.0	2366.7	2146.5	2022.8	2005.0	1979.6
60°	4457.3	4452.2	4394.6	4308.2	4149.0	3901.6	3552.6	3186.7	2902.1	2856.3	2859.7
62.5°	4717.4	4704.7	4676.7	4655.5	4601.3	4500.5	4435.3	4332.8	4194.7	4163.4	3965.2
65°	4863.1	4861.4	4876.6	4894.4	4891.0	4921.5	4954.5	5150.2	5379.8	5369.6	5160.4
67.5°	4646.2	4660.6	4740.2	4862.2	4990.1	5125.7	5378.1	5770.3	6054.0	6054.0	5870.2
70°	3340.0	3337.5	3549.2	3935.5	4279.4	4786.0	5251.0	5897.3	6361.5	6386.1	6191.3
72.5°	2001.6	2048.2	2178.7	2354.0	2646.3	3259.5	4124.4	5285.8	5933.8	5960.0	5727.1
75°	1406.1	1371.4	1366.3	1376.5	1426.5	1577.3	2053.3	3244.3	4301.4	4342.1	4116.8
77.5°	899.6	892.0	895.4	906.4	908.9	923.3	946.2	1112.2	1994.0	2188.8	2178.7
80°	775.9	773.4	774.2	761.5	737.0	727.6	756.4	733.6	712.4	742.0	701.4
82.5°	520.1	529.4	544.7	565.0	614.1	631.1	621.8	617.5	550.6	535.4	475.2
85°	385.4	380.3	386.3	386.3	373.6	360.9	370.2	360.9	319.3	299.0	264.3
87.5°	208.4	209.2	226.2	232.9	232.1	198.2	163.5	141.5	127.9	118.6	100.0
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: P141247

CATALOG NUMBER: ECM-F03-LED-E1-SL4-7060

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8
2.5°	1453.6	1451.0	1451.9	1451.9	1451.0	1452.7	1450.2	1449.3	1450.2	1450.2	1450.2
5°	1439.2	1435.8	1435.8	1434.9	1433.3	1433.3	1429.9	1429.0	1427.3	1429.9	1428.2
7.5°	1418.9	1413.8	1409.5	1406.1	1404.5	1401.9	1397.7	1396.0	1394.3	1393.4	1391.7
10°	1394.3	1388.4	1379.9	1373.1	1369.7	1362.9	1357.9	1351.1	1351.1	1347.7	1344.3
12.5°	1364.6	1356.2	1347.7	1338.4	1332.4	1323.1	1314.7	1307.0	1301.1	1293.5	1288.4
15°	1335.0	1322.3	1313.0	1303.6	1292.6	1279.9	1269.8	1257.9	1246.9	1235.0	1231.6
17.5°	1302.8	1292.6	1284.2	1273.2	1261.3	1246.0	1232.5	1213.0	1199.5	1185.1	1174.0
20°	1281.6	1269.8	1260.4	1250.3	1237.6	1219.8	1202.0	1180.0	1159.6	1138.5	1122.4
22.5°	1270.6	1251.1	1242.7	1233.3	1220.6	1201.2	1180.8	1153.7	1128.3	1100.4	1074.9
25°	1274.8	1248.6	1231.6	1221.5	1210.5	1191.0	1164.7	1134.2	1105.4	1069.9	1041.1
27.5°	1293.5	1257.9	1231.6	1214.7	1202.8	1182.5	1155.4	1120.7	1086.0	1048.7	1013.9
30°	1318.0	1273.2	1239.3	1214.7	1196.9	1174.9	1145.2	1108.0	1069.9	1028.3	988.5
32.5°	1346.0	1290.9	1250.3	1216.4	1187.6	1159.6	1129.2	1090.2	1050.4	1006.3	967.4
35°	1368.0	1304.5	1257.9	1213.0	1174.9	1140.2	1104.6	1068.2	1028.3	986.8	945.3
37.5°	1380.7	1313.0	1257.9	1201.2	1154.6	1118.1	1080.9	1045.3	1007.2	966.5	930.1
40°	1385.8	1316.4	1252.8	1187.6	1133.4	1091.9	1057.2	1020.7	986.8	951.3	919.1
42.5°	1383.3	1313.8	1246.0	1174.9	1116.4	1071.6	1033.4	999.5	971.6	941.9	914.8
45°	1373.1	1305.3	1239.3	1169.0	1110.5	1064.8	1025.8	993.6	967.4	940.3	919.1
47.5°	1364.6	1302.0	1243.5	1183.4	1127.5	1080.9	1038.5	1002.9	980.9	959.7	946.2
50°	1371.4	1311.3	1252.8	1196.1	1141.9	1094.4	1051.2	1018.2	1005.5	1002.1	997.9
52.5°	1390.1	1330.8	1281.6	1241.8	1217.2	1199.5	1155.4	1147.8	1136.8	1130.8	1116.4
55°	1511.2	1486.6	1530.7	1578.9	1587.4	1640.8	1662.0	1663.7	1645.0	1578.9	1424.8
57.5°	2004.2	2065.2	2083.8	2195.6	2226.1	2202.4	2170.2	2168.5	2110.9	2023.7	1799.2
60°	2885.1	2853.0	2813.1	2740.3	2671.7	2598.0	2496.3	2418.4	2344.7	2210.9	1974.5
62.5°	3806.8	3526.4	3322.2	3113.0	2943.6	2795.3	2648.0	2522.6	2403.2	2217.6	1964.4
65°	4606.4	4035.5	3621.2	3307.0	3044.4	2827.5	2631.9	2460.8	2310.0	2077.9	1821.2
67.5°	5126.5	4305.7	3686.5	3217.2	2846.2	2570.0	2282.0	2011.8	1863.6	1676.4	1545.9
70°	5259.5	4115.1	3251.1	2649.7	2149.9	1820.4	1480.7	1185.9	1049.5	997.0	1001.2
72.5°	4744.5	3252.8	2304.9	1685.7	1319.7	1046.1	850.5	653.9	510.8	428.6	418.5
75°	3099.4	1810.2	1094.4	762.4	606.5	482.8	380.3	320.2	276.1	222.8	186.4
77.5°	1171.5	689.5	491.3	400.7	296.5	206.7	160.9	135.5	124.5	121.1	109.3
80°	600.6	478.6	342.2	225.3	157.6	126.2	105.9	89.8	83.0	79.6	81.3
82.5°	404.9	301.6	188.9	135.5	109.3	94.0	74.5	62.7	55.9	55.1	59.3
85°	225.3	150.8	110.1	91.5	80.5	70.3	56.8	46.6	43.2	45.7	53.4
87.5°	70.3	69.5	50.0	40.7	42.4	36.4	27.1	20.3	20.3	26.3	37.3
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: P141247

CATALOG NUMBER: ECM-F03-LED-E1-SL4-7060

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8	1457.8
2.5°	1450.2	1451.9	1455.3	1452.7	1453.6	1454.4	1457.0	1460.4	1457.8	1456.1	1461.2
5°	1429.9	1429.9	1434.1	1432.4	1435.8	1439.2	1440.9	1446.8	1445.1	1443.4	1450.2
7.5°	1392.6	1393.4	1399.4	1397.7	1404.5	1405.3	1412.1	1417.2	1417.2	1420.5	1426.5
10°	1345.2	1345.2	1350.2	1351.1	1355.3	1358.7	1366.3	1375.7	1377.3	1383.3	1391.7
12.5°	1291.8	1290.1	1294.3	1294.3	1297.7	1302.0	1310.4	1321.4	1323.1	1332.4	1343.5
15°	1225.7	1223.2	1221.5	1223.2	1224.9	1225.7	1238.4	1249.4	1256.2	1266.4	1277.4
17.5°	1162.2	1152.9	1148.6	1148.6	1149.5	1149.5	1154.6	1167.3	1176.6	1192.7	1208.8
20°	1105.4	1089.3	1083.4	1069.9	1067.3	1061.4	1065.6	1080.0	1097.0	1109.7	1122.4
22.5°	1052.1	1035.1	1018.2	1002.1	989.4	981.8	989.4	998.7	1004.6	1014.8	1018.2
25°	1011.4	983.5	959.7	934.3	920.8	914.0	913.1	912.3	907.2	905.5	905.5
27.5°	979.2	946.2	910.6	882.7	864.0	851.3	836.9	826.7	814.0	797.1	788.6
30°	952.1	916.5	877.6	844.5	820.8	796.3	766.6	743.7	720.9	700.5	682.7
32.5°	927.5	891.1	853.0	818.3	777.6	735.3	698.0	670.9	631.1	604.0	581.1
35°	908.9	872.5	836.9	791.2	735.3	681.0	632.8	593.0	552.3	516.7	486.2
37.5°	895.4	864.9	826.7	764.9	694.6	629.4	578.6	531.1	482.8	434.5	396.4
40°	891.1	864.9	816.6	736.1	655.6	585.3	526.9	468.4	415.1	363.4	324.4
42.5°	893.7	865.7	800.5	710.7	623.4	547.2	481.1	413.4	349.8	294.8	255.8
45°	903.0	865.7	783.5	682.7	593.8	512.5	433.7	353.2	279.5	235.5	218.5
47.5°	930.9	871.6	770.0	662.4	567.5	474.4	380.3	288.9	226.2	207.5	207.5
50°	974.1	889.4	768.3	647.2	537.9	430.3	314.3	227.9	199.9	199.1	204.1
52.5°	1047.8	920.8	776.8	637.0	506.6	371.0	244.8	196.5	190.6	195.7	203.3
55°	1191.0	975.8	788.6	618.4	454.0	290.5	200.8	186.4	188.9	194.8	201.6
57.5°	1452.7	1086.8	801.3	578.6	367.6	220.2	182.1	183.0	187.2	193.1	199.1
60°	1633.2	1224.0	826.7	511.6	273.6	182.1	174.5	181.3	186.4	190.6	195.7
62.5°	1648.4	1274.0	845.4	436.2	203.3	166.0	167.7	177.9	184.7	186.4	188.9
65°	1556.9	1209.6	792.0	360.0	168.6	157.6	163.5	172.8	179.6	180.4	183.0
67.5°	1357.0	1074.9	676.0	273.6	154.2	151.6	158.4	164.3	169.4	173.7	177.0
70°	1051.2	877.6	543.8	212.6	143.2	142.3	148.2	155.0	160.1	164.3	169.4
72.5°	554.0	623.4	404.9	170.3	131.3	132.1	138.1	144.0	147.4	151.6	156.7
75°	172.0	264.3	249.9	136.4	116.9	120.3	123.7	128.8	134.7	137.2	139.8
77.5°	101.6	107.6	130.4	106.7	101.6	104.2	108.4	112.7	116.9	120.3	122.8
80°	82.2	83.9	84.7	84.7	84.7	88.1	91.5	97.4	100.8	102.5	103.3
82.5°	64.4	68.6	69.5	67.8	70.3	73.7	75.4	78.8	79.6	81.3	83.0
85°	53.4	52.5	54.2	55.1	51.7	51.7	50.0	50.0	53.4	59.3	60.1
87.5°	41.5	36.4	29.6	28.0	26.3	24.6	22.9	22.9	23.7	27.1	29.6
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: P141247

CATALOG NUMBER: ECM-F03-LED-E1-SL4-7060

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	1457.8	1457.8	1457.8	1457.8	1457.8
2.5°	1461.2	1460.4	1462.1	1464.6	1462.9
5°	1451.0	1451.0	1454.4	1457.0	1455.3
7.5°	1430.7	1431.6	1436.6	1440.0	1438.3
10°	1398.5	1400.2	1406.1	1411.2	1413.8
12.5°	1350.2	1356.2	1363.8	1368.9	1368.9
15°	1289.2	1298.6	1307.0	1314.7	1310.4
17.5°	1219.8	1230.8	1241.8	1246.0	1241.8
20°	1135.9	1136.8	1143.6	1147.8	1146.1
22.5°	1021.6	1018.2	1021.6	1023.3	1025.8
25°	904.7	898.7	895.4	900.4	903.0
27.5°	785.2	776.8	779.3	773.4	766.6
30°	669.2	661.6	652.2	649.7	653.9
32.5°	566.7	547.2	539.6	525.2	531.1
35°	458.3	438.8	420.1	415.1	411.7
37.5°	369.3	345.6	322.7	315.1	313.4
40°	288.9	269.4	254.1	249.9	248.2
42.5°	234.6	226.2	223.6	223.6	224.5
45°	214.3	215.2	217.7	219.4	220.2
47.5°	210.1	213.5	216.9	220.2	221.1
50°	210.1	212.6	215.2	218.5	219.4
52.5°	208.4	210.9	211.8	213.5	215.2
55°	206.7	207.5	207.5	208.4	210.1
57.5°	202.5	203.3	201.6	202.5	205.8
60°	198.2	199.1	197.4	199.1	199.9
62.5°	192.3	192.3	191.4	192.3	193.1
65°	185.5	183.0	184.7	183.8	184.7
67.5°	177.0	173.7	172.8	172.8	173.7
70°	165.2	162.6	161.8	163.5	165.2
72.5°	150.8	152.5	155.0	157.6	161.8
75°	140.6	143.2	146.5	155.0	160.9
77.5°	126.2	125.4	128.8	138.1	146.5
80°	105.0	105.9	105.0	107.6	109.3
82.5°	80.5	79.6	77.1	77.1	75.4
85°	56.8	54.2	50.8	50.0	49.1
87.5°	28.8	30.5	28.0	25.4	25.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)