

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: P141229

Luminaire Tested: **ECM-E02-LED-E1-SL4-7030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141229
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-E02-LED-E1-SL4-7030
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (42) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5157.6 lumens
Efficiency: N/A
Efficacy: 99.0 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

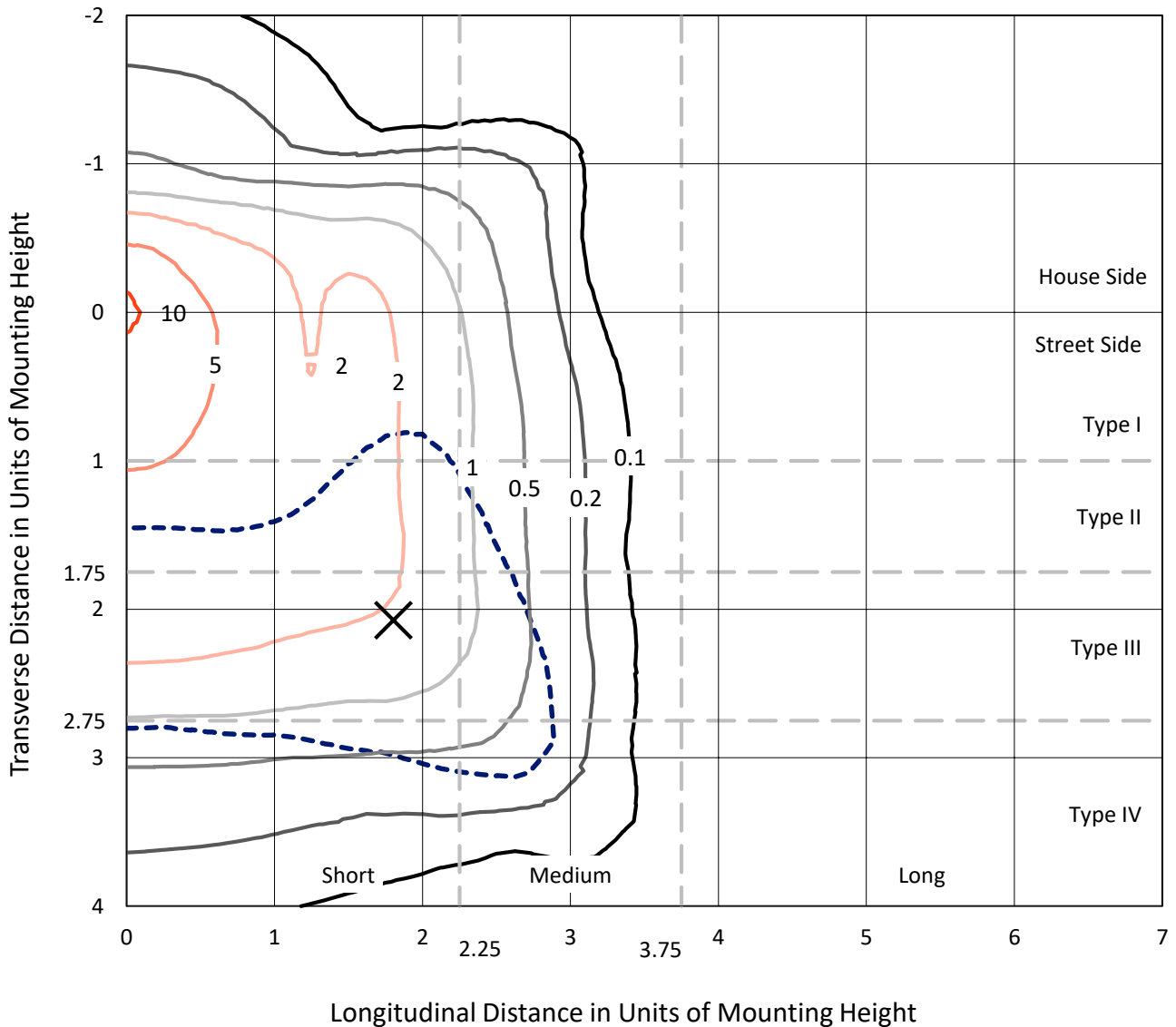
Input Watts (W): 52.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P141229
 CATALOG NUMBER: ECM-E02-LED-E1-SL4-7030

Iso-Footcandle Lines of Horizontal Illumination

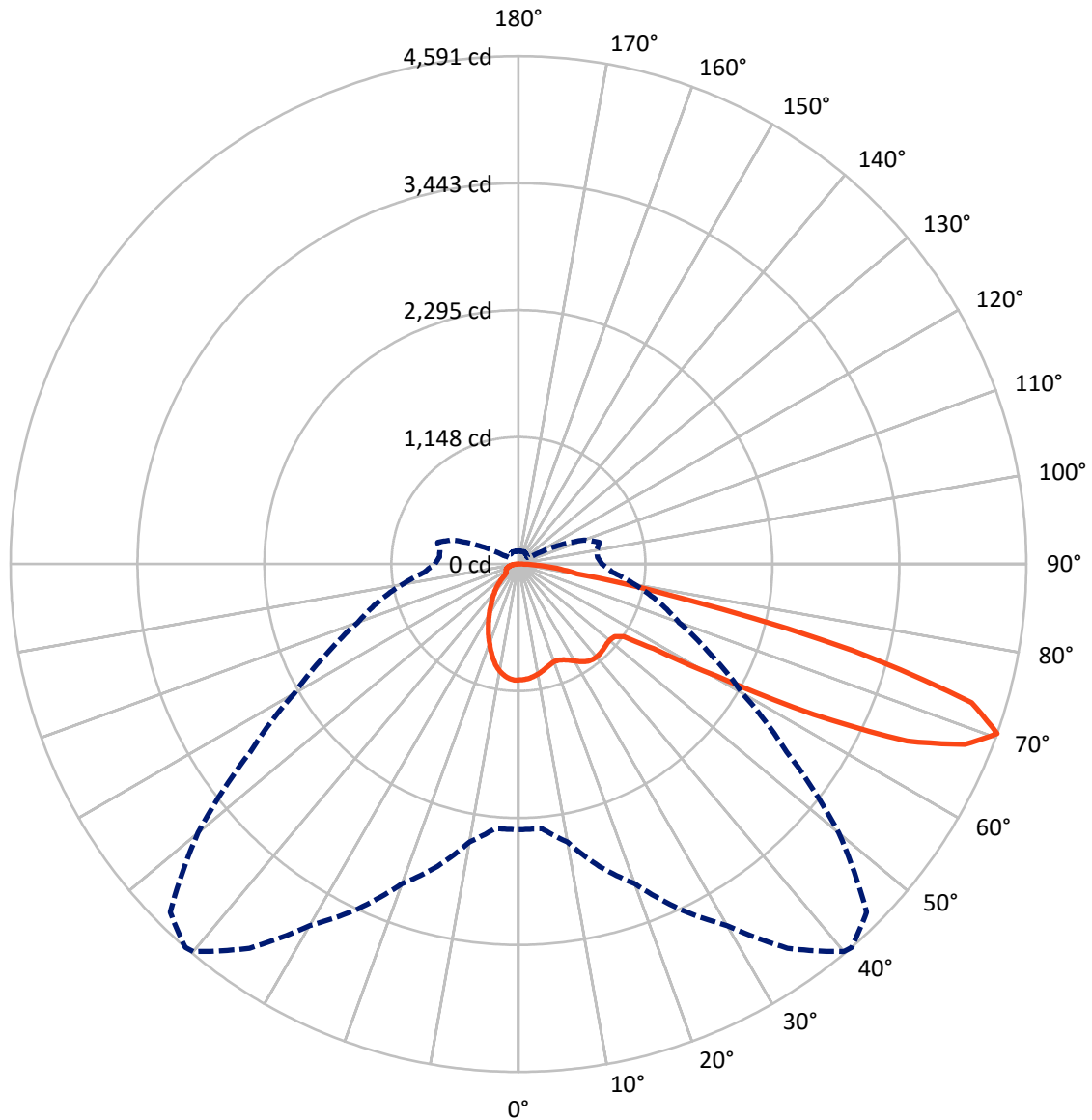
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.5 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P141229
CATALOG NUMBER: ECM-E02-LED-E1-SL4-7030

Luminous Intensity Polar Plot



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

REPORT NUMBER: P141229

CATALOG NUMBER: ECM-E02-LED-E1-SL4-7030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1106.6	0.0	1106.6
	% Fixture	21.5	0.0	21.5
Street Side	Lumens	4051.1	0.0	4051.1
	% Fixture	78.5	0.0	78.5
Total	Lumens	5157.6	0.0	5157.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.5	1.9
10°-20°	261.4	5.1
20°-30°	377.9	7.3
30°-40°	481.0	9.3
40°-50°	566.8	11.0
50°-60°	867.2	16.8
60°-70°	1611.8	31.3
70°-80°	777.9	15.1
80°-90°	116.2	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°	5157.6	100.0
0°-180°	5157.6	100.0



REPORT NUMBER: P141229

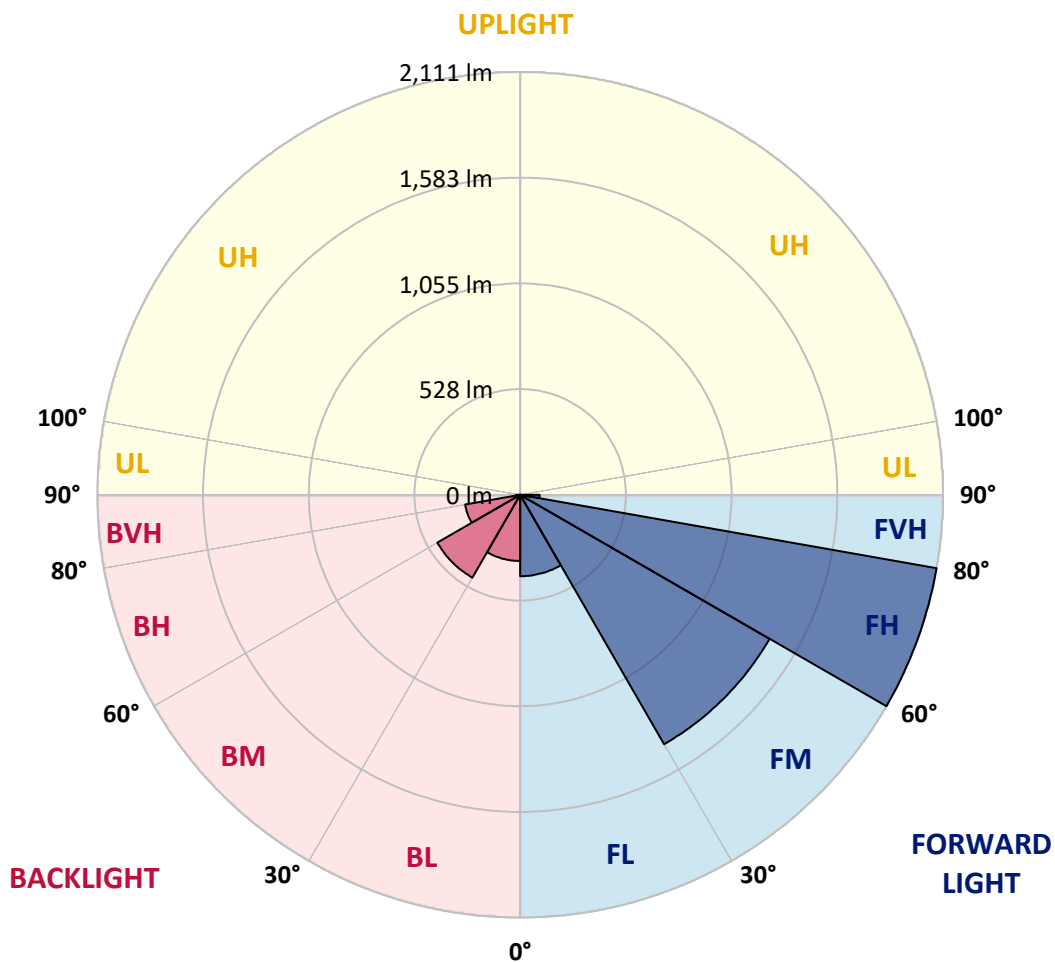
CATALOG NUMBER: ECM-E02-LED-E1-SL4-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	406.2	7.9			
FM (30°-60°)	1437.5	27.9			
FH (60°-80°)	2110.7	40.9			G2/5000
FVH (80°-90°)	96.6	1.9			G1/100
BL (0°-30°)	330.5	6.4	B1/500		
BM (30°-60°)	477.4	9.3	B1/1000		
BH (60°-80°)	279.0	5.4	B1/500		G1/500
BVH (80°-90°)	19.6	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: P141229

CATALOG NUMBER: ECM-E02-LED-E1-SL4-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	41°	45°
0°	1047.9	1047.9	1047.9	1047.9	1047.9	1047.9	1047.9	1047.9	1047.9	1047.9	1047.9
2.5°	1047.9	1049.1	1048.5	1047.3	1046.1	1046.7	1046.1	1045.5	1045.5	1044.9	1044.3
5°	1043.0	1045.5	1043.7	1042.4	1040.6	1040.6	1040.0	1038.8	1037.6	1037.0	1035.7
7.5°	1032.7	1035.1	1033.9	1032.7	1030.9	1029.7	1027.2	1026.0	1024.8	1024.2	1022.3
10°	1018.7	1019.9	1018.7	1016.3	1015.0	1014.4	1013.2	1010.8	1008.3	1007.1	1005.3
12.5°	1000.4	1001.0	999.8	998.6	996.8	996.8	994.9	993.1	989.5	988.2	984.0
15°	984.6	982.8	981.5	980.9	980.3	977.3	977.9	974.8	968.8	966.9	962.1
17.5°	980.3	978.5	977.9	976.1	974.8	971.2	967.5	961.5	951.1	949.3	942.0
20°	992.5	992.5	990.7	989.5	987.6	980.9	973.0	961.5	942.6	938.3	929.2
22.5°	1021.7	1018.7	1017.5	1017.5	1016.9	1007.1	992.5	974.2	949.3	943.8	928.0
25°	1067.4	1061.9	1063.7	1063.1	1061.9	1047.9	1026.6	1000.4	966.3	959.0	938.3
27.5°	1121.6	1122.8	1122.2	1119.8	1116.1	1100.9	1070.4	1035.1	992.5	985.2	958.4
30°	1178.2	1179.4	1183.1	1181.3	1178.8	1155.7	1117.9	1079.6	1027.8	1018.1	985.2
32.5°	1244.0	1248.2	1251.3	1251.9	1242.2	1210.5	1166.0	1117.3	1062.5	1052.8	1012.0
35°	1320.1	1317.7	1323.1	1320.7	1303.7	1260.4	1205.6	1147.8	1091.8	1079.0	1035.1
37.5°	1396.8	1399.9	1394.4	1384.0	1357.2	1300.6	1233.0	1167.9	1105.8	1093.6	1047.9
40°	1471.1	1469.3	1456.5	1438.8	1398.6	1326.2	1248.2	1177.0	1110.6	1097.8	1051.0
42.5°	1526.5	1521.6	1502.2	1473.5	1421.8	1338.4	1252.5	1177.0	1107.6	1094.2	1046.7
45°	1550.9	1546.0	1527.1	1490.6	1429.1	1335.9	1245.2	1166.7	1097.2	1085.7	1038.2
47.5°	1550.9	1549.0	1528.3	1493.0	1427.3	1329.2	1234.2	1153.9	1086.9	1075.3	1030.9
50°	1538.7	1537.5	1519.2	1484.5	1421.2	1325.6	1231.2	1151.4	1086.3	1074.7	1033.9
52.5°	1579.5	1571.6	1552.7	1512.5	1443.7	1340.8	1246.4	1163.6	1100.9	1089.3	1047.3
55°	2075.7	2069.0	1973.4	1805.4	1629.4	1468.7	1331.1	1236.1	1172.7	1155.1	1124.6
57.5°	2878.3	2868.5	2770.5	2617.7	2315.0	1971.0	1701.3	1543.0	1454.1	1441.3	1423.0
60°	3204.0	3200.4	3159.0	3096.9	2982.4	2804.6	2553.7	2290.7	2086.1	2053.2	2055.6
62.5°	3391.0	3381.8	3361.7	3346.5	3307.5	3235.1	3188.2	3114.5	3015.3	2992.7	2850.3
65°	3495.7	3494.5	3505.4	3518.2	3515.8	3537.7	3561.5	3702.1	3867.1	3859.8	3709.4
67.5°	3339.8	3350.2	3407.4	3495.1	3587.0	3684.5	3865.9	4147.8	4351.8	4351.8	4219.7
70°	2400.9	2399.1	2551.3	2829.0	3076.2	3440.3	3774.6	4239.2	4572.8	4590.5	4450.5
72.5°	1438.8	1472.3	1566.1	1692.1	1902.2	2343.0	2964.7	3799.5	4265.3	4284.2	4116.8
75°	1010.8	985.8	982.2	989.5	1025.4	1133.8	1476.0	2332.1	3092.0	3121.2	2959.3
77.5°	646.7	641.2	643.6	651.5	653.3	663.7	680.1	799.5	1433.4	1573.4	1566.1
80°	557.8	555.9	556.5	547.4	529.7	523.0	543.7	527.3	512.1	533.4	504.2
82.5°	373.9	380.6	391.5	406.1	441.5	453.6	446.9	443.9	395.8	384.8	341.6
85°	277.0	273.4	277.7	277.7	268.5	259.4	266.1	259.4	229.6	214.9	190.0
87.5°	149.8	150.4	162.6	167.4	166.8	142.5	117.5	101.7	91.9	85.2	71.9
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: P141229

CATALOG NUMBER: ECM-E02-LED-E1-SL4-7030

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1047.9	1047.9	1047.9	1047.9	1047.9	1047.9	1047.9	1047.9	1047.9	1047.9	1047.9
2.5°	1044.9	1043.0	1043.7	1043.7	1043.0	1044.3	1042.4	1041.8	1042.4	1042.4	1042.4
5°	1034.5	1032.1	1032.1	1031.5	1030.3	1030.3	1027.8	1027.2	1026.0	1027.8	1026.6
7.5°	1019.9	1016.3	1013.2	1010.8	1009.6	1007.7	1004.7	1003.5	1002.2	1001.6	1000.4
10°	1002.2	998.0	991.9	987.0	984.6	979.7	976.1	971.2	971.2	968.8	966.3
12.5°	980.9	974.8	968.8	962.1	957.8	951.1	945.0	939.5	935.3	929.8	926.1
15°	959.6	950.5	943.8	937.1	929.2	920.0	912.7	904.2	896.3	887.8	885.3
17.5°	936.5	929.2	923.1	915.2	906.7	895.7	885.9	871.9	862.2	851.9	843.9
20°	921.3	912.7	906.0	898.7	889.6	876.8	864.0	848.2	833.6	818.4	806.8
22.5°	913.4	899.3	893.3	886.6	877.4	863.4	848.8	829.3	811.1	791.0	772.7
25°	916.4	897.5	885.3	878.0	870.1	856.1	837.2	815.3	794.6	769.0	748.3
27.5°	929.8	904.2	885.3	873.2	864.6	850.0	830.5	805.6	780.6	753.8	728.9
30°	947.4	915.2	890.8	873.2	860.4	844.5	823.2	796.4	769.0	739.2	710.6
32.5°	967.5	928.0	898.7	874.4	853.7	833.6	811.7	783.7	755.0	723.4	695.4
35°	983.4	937.7	904.2	871.9	844.5	819.6	794.0	767.8	739.2	709.4	679.5
37.5°	992.5	943.8	904.2	863.4	829.9	803.7	777.0	751.4	724.0	694.8	668.6
40°	996.2	946.2	900.6	853.7	814.7	784.9	759.9	733.7	709.4	683.8	660.7
42.5°	994.3	944.4	895.7	844.5	802.5	770.3	742.9	718.5	698.4	677.1	657.6
45°	987.0	938.3	890.8	840.3	798.3	765.4	737.4	714.2	695.4	675.9	660.7
47.5°	980.9	935.9	893.9	850.6	810.4	777.0	746.5	720.9	705.1	689.9	680.1
50°	985.8	942.6	900.6	859.8	820.8	786.7	755.6	731.9	722.8	720.3	717.3
52.5°	999.2	956.6	921.3	892.6	875.0	862.2	830.5	825.1	817.1	812.9	802.5
55°	1086.3	1068.6	1100.3	1135.0	1141.1	1179.4	1194.7	1195.9	1182.5	1135.0	1024.2
57.5°	1440.7	1484.5	1497.9	1578.3	1600.2	1583.1	1560.0	1558.8	1517.4	1454.7	1293.3
60°	2073.9	2050.8	2022.2	1969.8	1920.5	1867.5	1794.4	1738.4	1685.4	1589.2	1419.3
62.5°	2736.4	2534.9	2388.1	2237.7	2115.9	2009.4	1903.4	1813.3	1727.4	1594.1	1412.0
65°	3311.2	2900.8	2603.0	2377.1	2188.4	2032.5	1891.9	1768.9	1660.5	1493.6	1309.1
67.5°	3685.1	3095.0	2649.9	2312.6	2045.9	1847.4	1640.4	1446.1	1339.6	1205.0	1111.2
70°	3780.7	2958.0	2337.0	1904.6	1545.4	1308.5	1064.4	852.5	754.4	716.7	719.7
72.5°	3410.5	2338.2	1656.8	1211.7	948.7	752.0	611.3	470.1	367.2	308.1	300.8
75°	2228.0	1301.2	786.7	548.0	436.0	347.1	273.4	230.2	198.5	160.1	134.0
77.5°	842.1	495.6	353.2	288.0	213.1	148.6	115.7	97.4	89.5	87.1	78.5
80°	431.7	344.0	246.0	162.0	113.3	90.7	76.1	64.5	59.7	57.2	58.5
82.5°	291.1	216.8	135.8	97.4	78.5	67.6	53.6	45.1	40.2	39.6	42.6
85°	162.0	108.4	79.2	65.8	57.8	50.5	40.8	33.5	31.1	32.9	38.4
87.5°	50.5	49.9	35.9	29.2	30.4	26.2	19.5	14.6	14.6	18.9	26.8
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: P141229

CATALOG NUMBER: ECM-E02-LED-E1-SL4-7030

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1047.9	1047.9	1047.9	1047.9	1047.9	1047.9	1047.9	1047.9	1047.9	1047.9	1047.9
2.5°	1042.4	1043.7	1046.1	1044.3	1044.9	1045.5	1047.3	1049.7	1047.9	1046.7	1050.4
5°	1027.8	1027.8	1030.9	1029.7	1032.1	1034.5	1035.7	1040.0	1038.8	1037.6	1042.4
7.5°	1001.0	1001.6	1005.9	1004.7	1009.6	1010.2	1015.0	1018.7	1018.7	1021.1	1025.4
10°	966.9	966.9	970.6	971.2	974.2	976.7	982.2	988.9	990.1	994.3	1000.4
12.5°	928.6	927.4	930.4	930.4	932.8	935.9	942.0	949.9	951.1	957.8	965.7
15°	881.1	879.3	878.0	879.3	880.5	881.1	890.2	898.1	903.0	910.3	918.2
17.5°	835.4	828.7	825.7	825.7	826.3	826.3	829.9	839.1	845.8	857.3	868.9
20°	794.6	783.0	778.8	769.0	767.2	763.0	766.0	776.3	788.5	797.7	806.8
22.5°	756.3	744.1	731.9	720.3	711.2	705.7	711.2	717.9	722.2	729.5	731.9
25°	727.0	706.9	689.9	671.6	661.9	657.0	656.4	655.8	652.1	650.9	650.9
27.5°	703.9	680.1	654.6	634.5	621.1	611.9	601.6	594.3	585.2	573.0	566.9
30°	684.4	658.8	630.8	607.1	590.0	572.4	551.1	534.6	518.2	503.6	490.8
32.5°	666.7	640.6	613.2	588.2	559.0	528.5	501.7	482.2	453.6	434.1	417.7
35°	653.3	627.2	601.6	568.7	528.5	489.6	454.8	426.2	397.0	371.4	349.5
37.5°	643.6	621.7	594.3	549.8	499.3	452.4	415.9	381.8	347.1	312.4	285.0
40°	640.6	621.7	587.0	529.1	471.3	420.8	378.7	336.7	298.4	261.2	233.2
42.5°	642.4	622.3	575.4	510.9	448.2	393.3	345.9	297.1	251.5	211.9	183.9
45°	649.1	622.3	563.2	490.8	426.8	368.4	311.8	253.9	200.9	169.3	157.1
47.5°	669.2	626.6	553.5	476.2	408.0	341.0	273.4	207.6	162.6	149.2	149.2
50°	700.2	639.3	552.3	465.2	386.7	309.3	225.9	163.8	143.7	143.1	146.7
52.5°	753.2	661.9	558.4	457.9	364.1	266.7	176.0	141.3	137.0	140.7	146.1
55°	856.1	701.5	566.9	444.5	326.4	208.9	144.3	134.0	135.8	140.0	144.9
57.5°	1044.3	781.2	576.0	415.9	264.3	158.3	130.9	131.5	134.6	138.8	143.1
60°	1174.0	879.9	594.3	367.8	196.7	130.9	125.4	130.3	134.0	137.0	140.7
62.5°	1184.9	915.8	607.7	313.6	146.1	119.3	120.6	127.9	132.7	134.0	135.8
65°	1119.2	869.5	569.3	258.8	121.2	113.3	117.5	124.2	129.1	129.7	131.5
67.5°	975.5	772.7	485.9	196.7	110.8	109.0	113.9	118.1	121.8	124.8	127.3
70°	755.6	630.8	390.9	152.8	102.9	102.3	106.6	111.4	115.1	118.1	121.8
72.5°	398.2	448.2	291.1	122.4	94.4	95.0	99.3	103.5	105.9	109.0	112.6
75°	123.6	190.0	179.6	98.0	84.0	86.5	88.9	92.6	96.8	98.6	100.5
77.5°	73.1	77.3	93.8	76.7	73.1	74.9	77.9	81.0	84.0	86.5	88.3
80°	59.1	60.3	60.9	60.9	60.9	63.3	65.8	70.0	72.5	73.7	74.3
82.5°	46.3	49.3	49.9	48.7	50.5	53.0	54.2	56.6	57.2	58.5	59.7
85°	38.4	37.8	39.0	39.6	37.1	37.1	35.9	35.9	38.4	42.6	43.2
87.5°	29.8	26.2	21.3	20.1	18.9	17.7	16.4	16.4	17.0	19.5	21.3
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: P141229

CATALOG NUMBER: ECM-E02-LED-E1-SL4-7030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	1047.9	1047.9	1047.9	1047.9	1047.9
2.5°	1050.4	1049.7	1051.0	1052.8	1051.6
5°	1043.0	1043.0	1045.5	1047.3	1046.1
7.5°	1028.4	1029.0	1032.7	1035.1	1033.9
10°	1005.3	1006.5	1010.8	1014.4	1016.3
12.5°	970.6	974.8	980.3	984.0	984.0
15°	926.7	933.4	939.5	945.0	942.0
17.5°	876.8	884.7	892.6	895.7	892.6
20°	816.5	817.1	822.0	825.1	823.8
22.5°	734.3	731.9	734.3	735.6	737.4
25°	650.3	646.0	643.6	647.3	649.1
27.5°	564.5	558.4	560.2	555.9	551.1
30°	481.0	475.6	468.9	467.0	470.1
32.5°	407.4	393.3	387.9	377.5	381.8
35°	329.4	315.4	302.0	298.4	295.9
37.5°	265.5	248.4	232.0	226.5	225.3
40°	207.6	193.6	182.7	179.6	178.4
42.5°	168.7	162.6	160.7	160.7	161.4
45°	154.1	154.7	156.5	157.7	158.3
47.5°	151.0	153.4	155.9	158.3	158.9
50°	151.0	152.8	154.7	157.1	157.7
52.5°	149.8	151.6	152.2	153.4	154.7
55°	148.6	149.2	149.2	149.8	151.0
57.5°	145.5	146.1	144.9	145.5	148.0
60°	142.5	143.1	141.9	143.1	143.7
62.5°	138.2	138.2	137.6	138.2	138.8
65°	133.3	131.5	132.7	132.1	132.7
67.5°	127.3	124.8	124.2	124.2	124.8
70°	118.7	116.9	116.3	117.5	118.7
72.5°	108.4	109.6	111.4	113.3	116.3
75°	101.1	102.9	105.3	111.4	115.7
77.5°	90.7	90.1	92.6	99.3	105.3
80°	75.5	76.1	75.5	77.3	78.5
82.5°	57.8	57.2	55.4	55.4	54.2
85°	40.8	39.0	36.5	35.9	35.3
87.5°	20.7	21.9	20.1	18.3	18.3
90°	0.0	0.0	0.0	0.0	0.0

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