

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: P141070

Luminaire Tested: **ECM-E02-LED-E1-SL3**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141070
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33691)
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-SL3
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL
Light Source: (42) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5787.8 lumens
Efficiency: N/A
Efficacy: 111.1 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

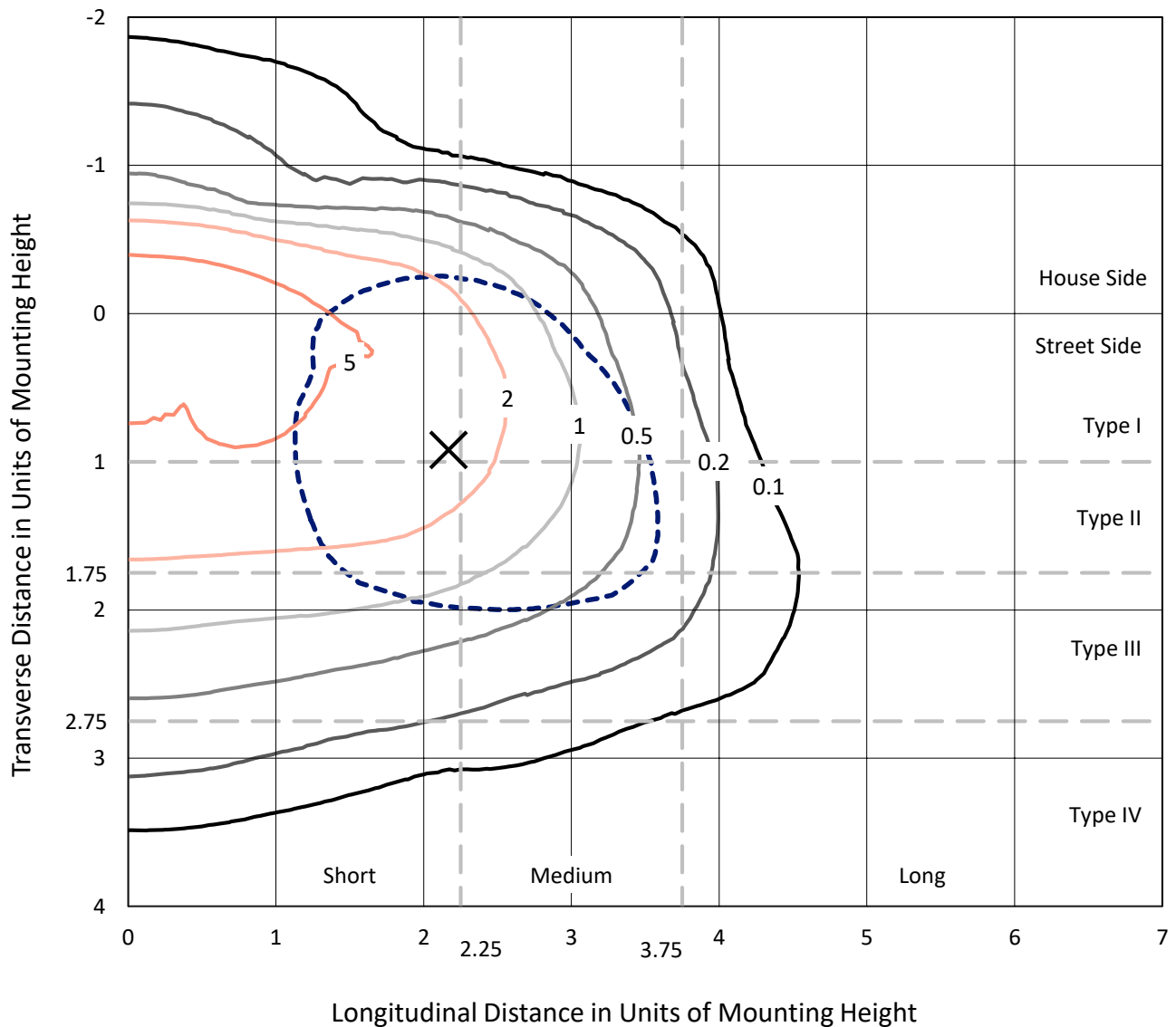
Input Watts (W): 52.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P141070
 CATALOG NUMBER: ECM-E02-LED-E1-SL3

Iso-Footcandle Lines of Horizontal Illumination

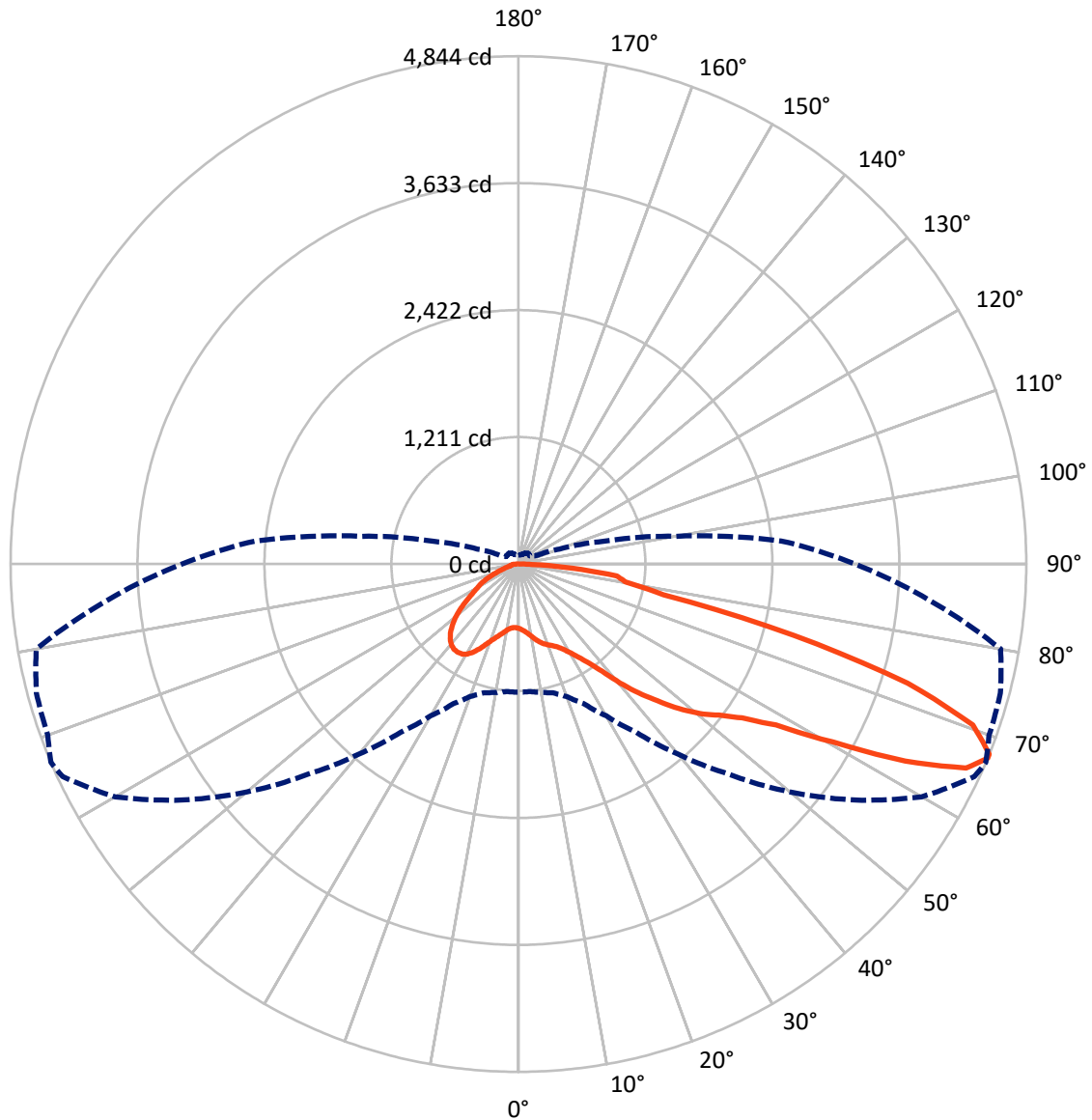
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.1 fc
 Type III - Short - Semi-Cutoff

REPORT NUMBER: P141070
CATALOG NUMBER: ECM-E02-LED-E1-SL3

Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

REPORT NUMBER: P141070

CATALOG NUMBER: ECM-E02-LED-E1-SL3

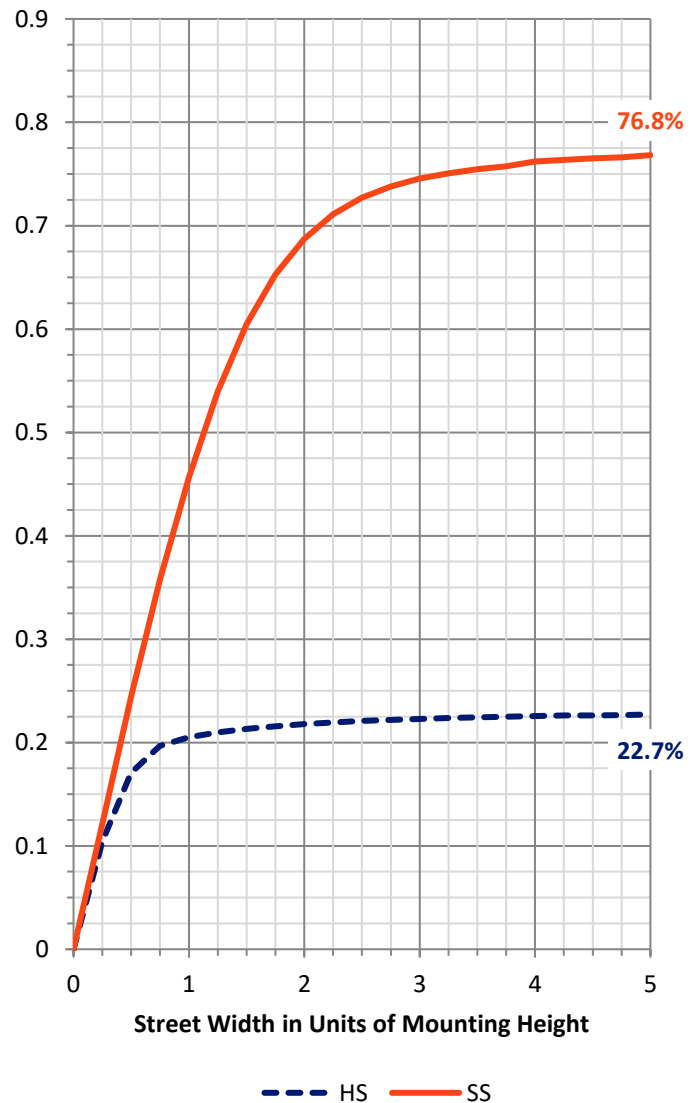
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1331.5	0.0	1331.5
	% Fixture	23.0	0.0	23.0
Street Side	Lumens	4456.3	0.0	4456.3
	% Fixture	77.0	0.0	77.0
Total	Lumens	5787.8	0.0	5787.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.5	1.1
10°-20°	212.8	3.7
20°-30°	378.8	6.5
30°-40°	544.6	9.4
40°-50°	830.1	14.3
50°-60°	1212.5	20.9
60°-70°	1633.7	28.2
70°-80°	802.1	13.9
80°-90°	111.5	1.9
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°	5787.8	100.0
0°-180°	5787.8	100.0



REPORT NUMBER: P141070

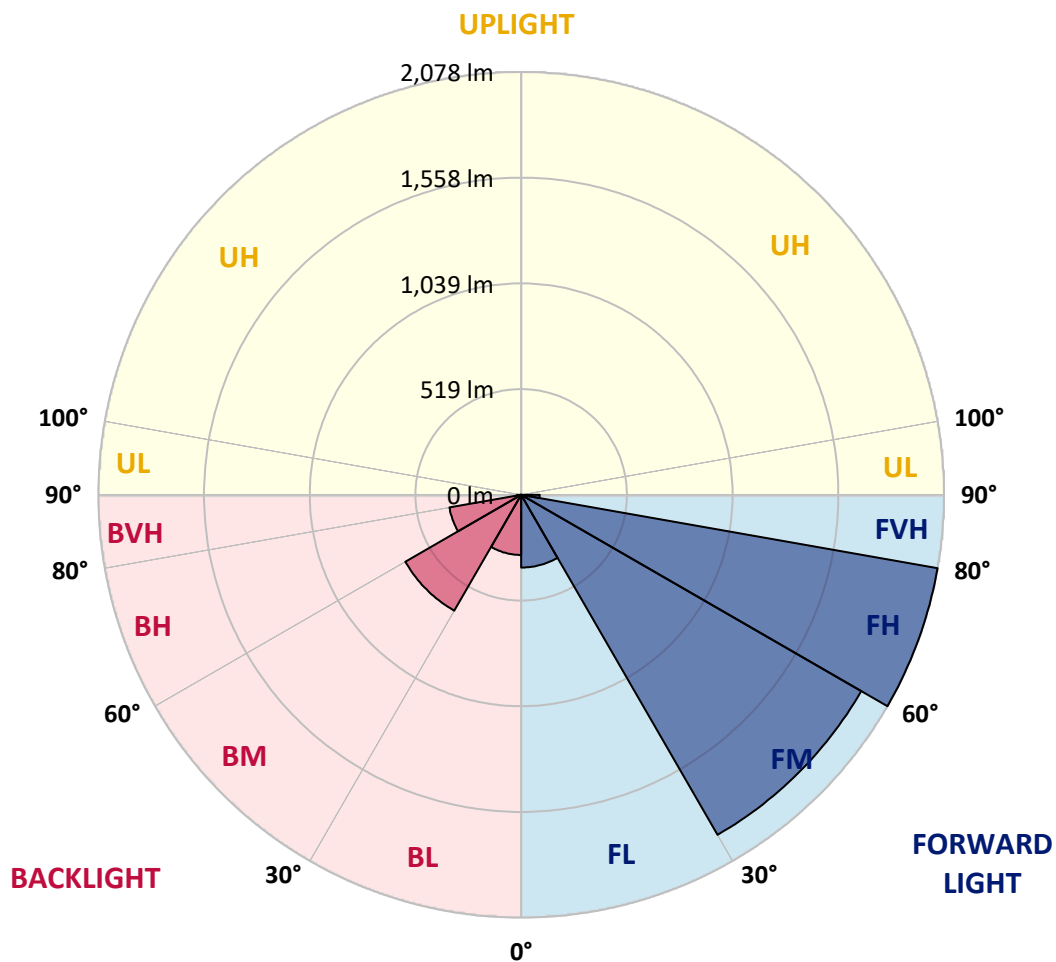
CATALOG NUMBER: ECM-E02-LED-E1-SL3

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	357.5	6.2			
FM	(30°-60°)	1929.5	33.3			
FH	(60°-80°)	2077.8	35.9			G2/5000
FVH	(80°-90°)	91.4	1.6			G1/100
BL	(0°-30°)	295.7	5.1	B1/500		
BM	(30°-60°)	657.7	11.4	B1/1000		
BH	(60°-80°)	358.0	6.2	B1/500		G1/500
BVH	(80°-90°)	20.1	0.3			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 III Short





REPORT NUMBER: P141070

CATALOG NUMBER: ECM-E02-LED-E1-SL3

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0
2.5°	646.0	642.7	645.3	644.7	642.7	640.0	641.3	639.3	638.0	636.0	634.0
5°	688.0	686.0	684.7	682.7	681.3	679.3	678.0	674.7	670.0	666.7	664.0
7.5°	729.3	728.7	726.7	724.0	718.7	717.3	712.7	709.3	705.3	698.7	693.3
10°	778.0	777.3	774.0	770.0	764.0	758.0	752.7	744.7	736.7	730.7	726.0
12.5°	836.7	833.3	826.7	821.3	814.7	805.3	796.7	787.3	776.0	766.7	761.3
15°	895.3	891.3	886.0	878.7	868.7	856.0	843.3	829.3	812.0	800.0	792.7
17.5°	943.3	940.7	934.7	924.7	914.7	899.3	882.7	863.3	842.0	824.0	812.7
20°	978.0	975.3	966.0	954.0	940.7	923.3	905.3	884.0	858.7	836.7	824.0
22.5°	992.7	988.7	978.0	962.0	944.0	922.7	903.3	885.3	862.0	845.3	832.0
25°	997.3	992.7	978.7	958.7	935.3	908.0	886.0	872.0	858.0	852.0	847.3
27.5°	994.7	990.7	975.3	950.7	919.3	887.3	864.0	854.0	854.7	866.0	871.3
30°	985.3	980.7	966.7	939.3	906.0	871.3	850.7	847.3	862.7	891.3	912.7
32.5°	970.0	966.7	955.3	932.0	902.0	872.0	857.3	864.7	891.3	936.0	972.7
35°	966.0	965.3	960.0	947.3	925.3	906.0	900.0	920.7	964.7	1026.0	1072.7
37.5°	965.3	968.7	971.3	971.3	966.7	965.3	983.3	1012.0	1077.3	1154.0	1230.0
40°	978.7	984.7	998.0	1015.3	1032.0	1056.0	1092.7	1146.7	1214.7	1308.0	1402.7
42.5°	1020.0	1033.3	1056.0	1086.0	1129.3	1174.0	1233.3	1300.7	1388.0	1482.0	1576.0
45°	1100.7	1120.0	1136.7	1184.0	1241.3	1294.0	1371.3	1460.0	1556.0	1674.0	1775.3
47.5°	1207.3	1221.3	1256.0	1306.0	1376.0	1451.3	1526.0	1603.3	1718.7	1842.0	1964.7
50°	1314.0	1324.7	1361.3	1420.0	1512.0	1594.7	1680.0	1756.7	1856.0	1986.7	2106.7
52.5°	1393.3	1408.0	1440.0	1497.3	1600.7	1694.7	1792.0	1876.7	1988.7	2106.0	2231.3
55°	1448.0	1457.3	1486.7	1542.7	1640.0	1747.3	1857.3	1961.3	2094.7	2227.3	2352.0
57.5°	1456.7	1466.0	1492.7	1542.0	1636.7	1749.3	1875.3	2002.7	2164.0	2339.3	2502.7
60°	1446.7	1454.0	1477.3	1518.0	1607.3	1730.7	1880.7	2040.7	2239.3	2465.3	2698.7
62.5°	1402.0	1409.3	1430.7	1464.0	1543.3	1676.7	1864.7	2096.7	2346.7	2630.7	2972.7
65°	1318.0	1322.7	1342.7	1369.3	1449.3	1584.7	1792.0	2085.3	2431.3	2818.0	3260.7
67°	1222.7	1220.7	1243.3	1270.0	1343.3	1468.0	1670.7	1959.3	2364.0	2832.7	3381.3
67.5°	1193.3	1198.7	1220.7	1239.3	1310.7	1431.3	1625.3	1910.7	2306.7	2799.3	3379.3
70°	985.3	995.3	1007.3	1019.3	1082.0	1170.7	1313.3	1589.3	1909.3	2376.0	3068.0
72.5°	676.0	656.0	664.7	660.7	680.0	736.0	835.3	1078.0	1332.0	1733.3	2277.3
75°	342.7	364.7	362.0	378.7	406.0	441.3	487.3	578.0	777.3	1013.3	1409.3
77.5°	192.0	186.7	205.3	209.3	225.3	262.7	344.0	463.3	554.7	651.3	796.7
80°	87.3	96.7	102.7	93.3	96.7	104.7	136.0	213.3	358.7	546.0	628.0
82.5°	48.7	52.0	60.7	61.3	64.0	66.0	71.3	82.7	111.3	225.3	443.3
85°	30.7	32.0	40.7	44.7	46.7	46.7	46.7	49.3	56.7	66.7	114.7
87.5°	11.3	12.0	18.7	24.7	25.3	24.0	22.7	26.0	24.0	24.7	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: P141070

CATALOG NUMBER: ECM-E02-LED-E1-SL3

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	67°	70°	75°	80°	85°	90°	95°	100°
0°	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0
2.5°	632.7	630.0	627.3	626.7	624.7	623.3	620.0	617.3	614.7	612.7	610.7
5°	658.0	652.7	648.0	646.0	643.3	640.0	633.3	628.7	624.7	620.7	616.7
7.5°	686.7	680.0	673.3	670.7	666.7	660.7	653.3	648.0	641.3	635.3	630.0
10°	718.7	711.3	706.0	703.3	700.0	691.3	686.7	677.3	670.0	662.0	655.3
12.5°	753.3	750.0	742.7	740.0	736.7	730.7	724.0	716.0	706.7	698.0	690.0
15°	784.7	779.3	774.7	774.0	772.0	768.7	760.0	751.3	743.3	732.0	725.3
17.5°	804.0	802.0	801.3	800.7	799.3	797.3	793.3	784.0	776.7	767.3	758.0
20°	816.0	818.0	821.3	824.0	825.3	826.7	824.7	815.3	808.0	800.0	792.0
22.5°	828.7	834.0	842.7	846.7	851.3	858.0	856.7	850.7	846.7	837.3	831.3
25°	846.7	857.3	872.0	877.3	886.0	894.7	896.7	893.3	889.3	882.7	882.7
27.5°	877.3	892.7	912.0	923.3	932.0	944.0	948.0	946.0	946.7	942.7	952.0
30°	925.3	946.7	972.7	984.7	995.3	1009.3	1012.0	1016.0	1013.3	1020.7	1032.0
32.5°	998.0	1024.7	1051.3	1062.7	1072.0	1086.7	1095.3	1092.7	1102.0	1106.7	1122.7
35°	1110.0	1136.7	1157.3	1159.3	1170.0	1178.0	1186.0	1183.3	1208.7	1218.7	1227.3
37.5°	1264.7	1287.3	1300.0	1295.3	1282.7	1298.0	1308.7	1324.7	1340.7	1358.7	1326.7
40°	1465.3	1501.3	1496.0	1489.3	1465.3	1468.7	1473.3	1482.0	1508.7	1502.7	1411.3
42.5°	1656.0	1692.7	1686.7	1679.3	1647.3	1630.7	1643.3	1658.7	1673.3	1616.7	1480.7
45°	1848.7	1882.0	1853.3	1863.3	1834.7	1827.3	1852.0	1860.7	1844.0	1740.0	1539.3
47.5°	2048.7	2084.7	2070.7	2060.7	2040.0	2038.0	2052.0	2065.3	1999.3	1829.3	1583.3
50°	2202.0	2255.3	2248.0	2242.0	2219.3	2216.7	2250.0	2259.3	2140.7	1924.0	1627.3
52.5°	2320.0	2389.3	2402.7	2394.7	2389.3	2390.7	2486.7	2472.7	2308.7	2038.7	1678.7
55°	2459.3	2531.3	2580.0	2590.0	2603.3	2622.7	2812.7	2792.0	2540.7	2204.0	1732.7
57.5°	2644.0	2777.3	2850.7	2896.0	2932.7	3058.0	3299.3	3220.0	2862.0	2417.3	1796.7
60°	2916.0	3180.7	3332.7	3448.0	3520.7	3739.3	4032.0	3740.0	3235.3	2673.3	1880.7
62.5°	3352.7	3784.7	4075.3	4140.7	4171.3	4379.3	4588.7	4138.0	3504.7	2842.7	1894.0
65°	3776.0	4316.0	4655.3	4693.3	4670.7	4726.7	4785.3	4150.0	3442.0	2762.7	1738.0
67°	3925.3	4441.3	4798.0	4844.0	4777.3	4759.3	4670.0	3931.3	3208.0	2517.3	1520.7
67.5°	3917.3	4426.7	4796.7	4843.3	4777.3	4748.7	4617.3	3843.3	3116.0	2457.3	1478.7
70°	3610.7	4100.0	4512.0	4599.3	4562.7	4486.7	4137.3	3255.3	2582.0	2016.0	1140.0
72.5°	2931.3	3460.0	3786.7	3883.3	3909.3	3714.0	3081.3	2278.7	1861.3	1440.7	826.7
75°	1968.0	2493.3	2760.7	2712.0	2554.0	2221.3	1626.7	1202.0	1020.0	838.0	511.3
77.5°	1116.0	1521.3	1500.7	1416.7	1283.3	950.0	461.3	250.0	238.7	278.7	216.7
80°	745.3	938.0	1002.0	1034.7	1027.3	702.7	190.7	96.7	83.3	83.3	82.0
82.5°	622.0	810.7	918.0	946.7	882.0	534.0	114.0	63.3	50.7	56.7	63.3
85°	262.0	408.7	540.7	520.0	413.3	208.0	58.0	33.3	33.3	44.0	55.3
87.5°	63.3	94.0	132.7	128.7	103.3	48.0	29.3	20.7	20.7	34.0	48.0
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: P141070

CATALOG NUMBER: ECM-E02-LED-E1-SL3

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0
2.5°	610.0	607.3	607.3	604.7	603.3	602.0	601.3	602.0	600.0	598.0	598.7
5°	613.3	609.3	607.3	602.7	600.0	597.3	595.3	594.7	591.3	589.3	589.3
7.5°	624.7	619.3	615.3	610.0	604.7	600.7	597.3	595.3	590.7	587.3	586.7
10°	648.0	640.7	634.7	626.7	619.3	614.0	608.0	604.7	599.3	596.0	594.7
12.5°	682.7	672.0	662.7	650.7	642.0	634.0	630.7	625.3	623.3	621.3	622.0
15°	715.3	702.7	694.0	684.7	674.7	670.0	663.3	662.7	663.3	660.0	660.0
17.5°	748.7	738.7	728.7	725.3	716.0	712.7	708.0	705.3	699.3	693.3	686.0
20°	783.3	778.0	774.0	770.0	768.0	760.0	748.0	734.0	714.7	697.3	682.7
22.5°	828.0	824.7	825.3	822.0	811.3	791.3	764.0	734.7	703.3	675.3	653.3
25°	884.7	888.0	884.0	867.3	836.7	796.0	754.0	712.7	671.3	638.0	608.0
27.5°	956.7	954.0	935.3	892.7	840.0	782.0	728.0	678.7	629.3	590.7	553.3
30°	1035.3	1016.0	967.3	900.7	826.7	756.7	690.0	632.7	575.3	530.0	488.0
32.5°	1114.7	1059.3	980.7	891.3	803.3	720.7	646.0	578.7	512.7	462.0	413.3
35°	1174.7	1086.0	978.7	871.3	768.0	673.3	586.7	503.3	426.7	366.0	316.7
37.5°	1230.0	1100.7	965.3	840.7	719.3	610.7	502.7	412.7	335.3	274.7	232.0
40°	1264.0	1099.3	939.3	790.0	652.0	518.7	401.3	308.7	240.7	196.0	172.7
42.5°	1284.0	1085.3	894.7	722.7	559.3	415.3	296.0	212.7	171.3	152.0	141.3
45°	1294.0	1055.3	839.3	632.7	447.3	296.7	204.0	153.3	136.7	131.3	128.7
47.5°	1288.0	1013.3	760.0	531.3	333.3	203.3	146.0	129.3	124.0	121.3	120.7
50°	1274.0	958.7	676.7	421.3	236.7	146.0	122.7	118.0	116.0	115.3	114.0
52.5°	1254.0	894.0	581.3	326.7	168.0	121.3	114.7	112.7	111.3	109.3	108.7
55°	1220.7	814.0	484.0	240.7	134.7	114.7	111.3	110.7	108.0	106.0	104.7
57.5°	1180.7	728.7	392.0	188.7	124.0	112.0	110.0	109.3	106.7	104.0	101.3
60°	1160.7	668.7	322.7	163.3	122.0	113.3	112.0	110.7	107.3	103.3	100.0
62.5°	1111.3	604.0	278.0	155.3	124.7	118.0	117.3	114.7	110.0	106.0	100.7
65°	984.0	512.7	236.7	147.3	128.7	125.3	126.7	123.3	118.0	111.3	102.7
67°	831.3	416.7	200.0	141.3	133.3	135.3	137.3	135.3	126.7	116.7	105.3
67.5°	790.0	388.0	190.0	139.3	134.7	137.3	140.7	138.7	129.3	118.0	106.7
70°	594.0	278.0	150.7	132.0	139.3	146.7	153.3	152.7	143.3	129.3	111.3
72.5°	410.7	190.0	122.0	123.3	135.3	148.7	157.3	161.3	152.0	135.3	114.0
75°	247.3	121.3	102.7	111.3	123.3	136.7	150.7	152.0	141.3	124.7	106.7
77.5°	121.3	87.3	84.7	88.0	99.3	110.7	116.7	109.3	102.7	91.3	84.7
80°	73.3	68.7	67.3	74.7	81.3	79.3	74.7	68.7	65.3	62.7	60.0
82.5°	61.3	62.0	63.3	64.7	63.3	56.0	48.0	44.0	41.3	41.3	42.0
85°	62.7	64.0	58.7	54.0	48.0	40.0	32.7	28.0	28.7	29.3	29.3
87.5°	48.7	46.7	41.3	34.0	27.3	20.0	16.0	13.3	14.7	14.0	15.3
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: P141070

CATALOG NUMBER: ECM-E02-LED-E1-SL3

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	614.0	614.0	614.0	614.0	614.0
2.5°	598.7	598.0	598.7	598.7	599.3
5°	588.0	586.7	586.7	587.3	587.3
7.5°	585.3	584.0	584.0	584.7	584.0
10°	594.7	594.0	595.3	594.7	594.7
12.5°	622.7	622.7	625.3	626.7	625.3
15°	660.7	659.3	661.3	662.0	662.7
17.5°	682.0	676.0	674.0	675.3	672.7
20°	670.0	660.0	656.0	655.3	650.7
22.5°	636.0	621.3	615.3	612.7	607.3
25°	588.0	570.7	562.7	556.0	552.7
27.5°	530.7	509.3	498.0	492.7	490.7
30°	458.7	438.0	421.3	412.7	410.0
32.5°	378.7	348.7	331.3	320.7	313.3
35°	282.7	254.0	241.3	233.3	224.0
37.5°	205.3	188.0	177.3	172.0	170.0
40°	158.7	150.0	144.7	144.0	143.3
42.5°	137.3	133.3	132.7	131.3	130.0
45°	126.7	125.3	126.0	124.0	122.7
47.5°	119.3	118.7	118.7	117.3	116.7
50°	113.3	113.3	112.7	112.0	112.0
52.5°	108.0	108.7	108.7	107.3	107.3
55°	103.3	103.3	104.0	103.3	103.3
57.5°	100.0	99.3	100.0	100.0	100.0
60°	98.0	96.7	96.0	96.7	96.7
62.5°	96.0	94.0	93.3	93.3	94.0
65°	96.0	92.7	91.3	91.3	90.7
67°	96.7	91.3	88.7	87.3	86.7
67.5°	96.7	90.7	87.3	86.7	86.0
70°	96.7	88.0	83.3	80.0	80.0
72.5°	96.0	85.3	78.0	74.7	73.3
75°	91.3	80.7	74.0	70.0	68.7
77.5°	76.7	70.0	66.7	63.3	62.7
80°	58.0	54.7	52.0	44.7	41.3
82.5°	41.3	39.3	34.7	32.0	30.0
85°	29.3	27.3	25.3	22.7	22.7
87.5°	16.0	15.3	14.7	13.3	12.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)