

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: P162616

Luminaire Tested: **ECM-E04-LED-E1-SL4-HSS-7030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P162616
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33728)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-E04-LED-E1-SL4-HSS-7030
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (84) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7068 lumens
Efficiency: N/A
Efficacy: 72.7 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 1' x H: 0.1')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B0 - U0 - G2

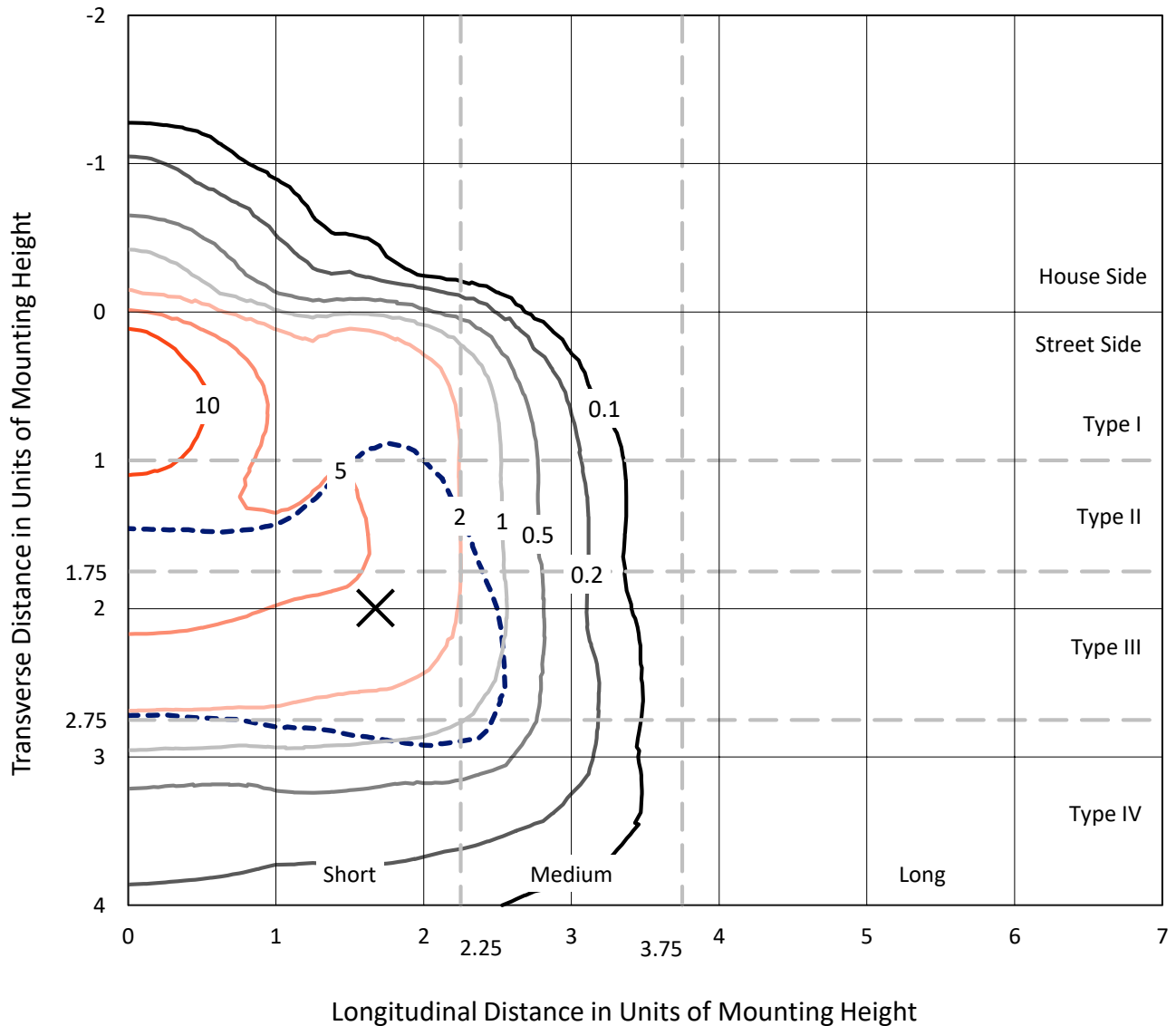
Input Watts (W): 97.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

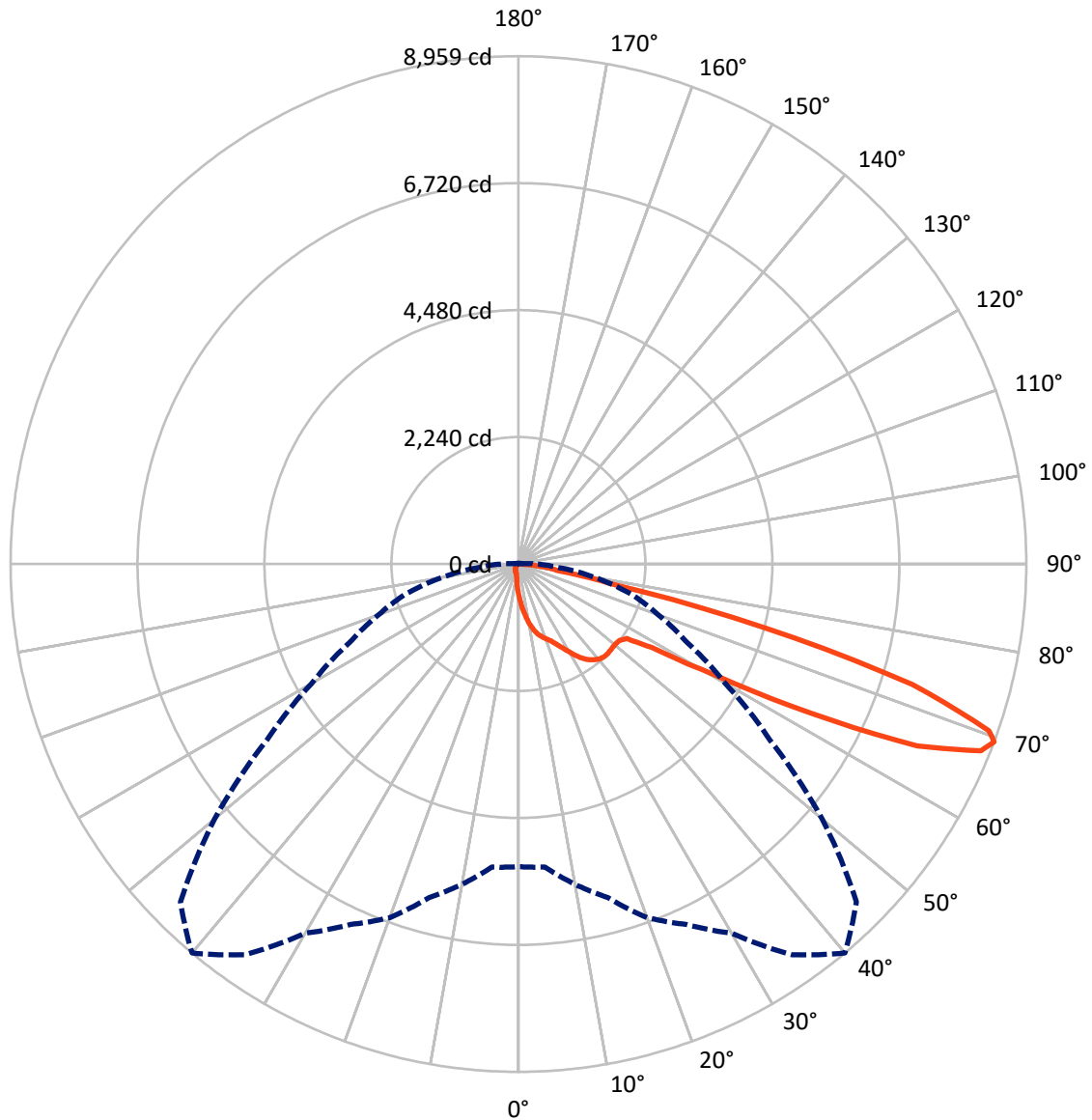
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 15.8 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	210.5	0.0	210.5
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	6857.4	0.0	6857.4
	% Fixture	97.0	0.0	97.0
Total	Lumens	7068.0	0.0	7068.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.9	0.8
10°-20°	189.2	2.7
20°-30°	362.0	5.1
30°-40°	602.1	8.5
40°-50°	814.7	11.5
50°-60°	1274.1	18.0
60°-70°	2619.5	37.1
70°-80°	1054.1	14.9
80°-90°	97.5	1.4
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°	7068.0	100.0
0°-180°	7068.0	100.0



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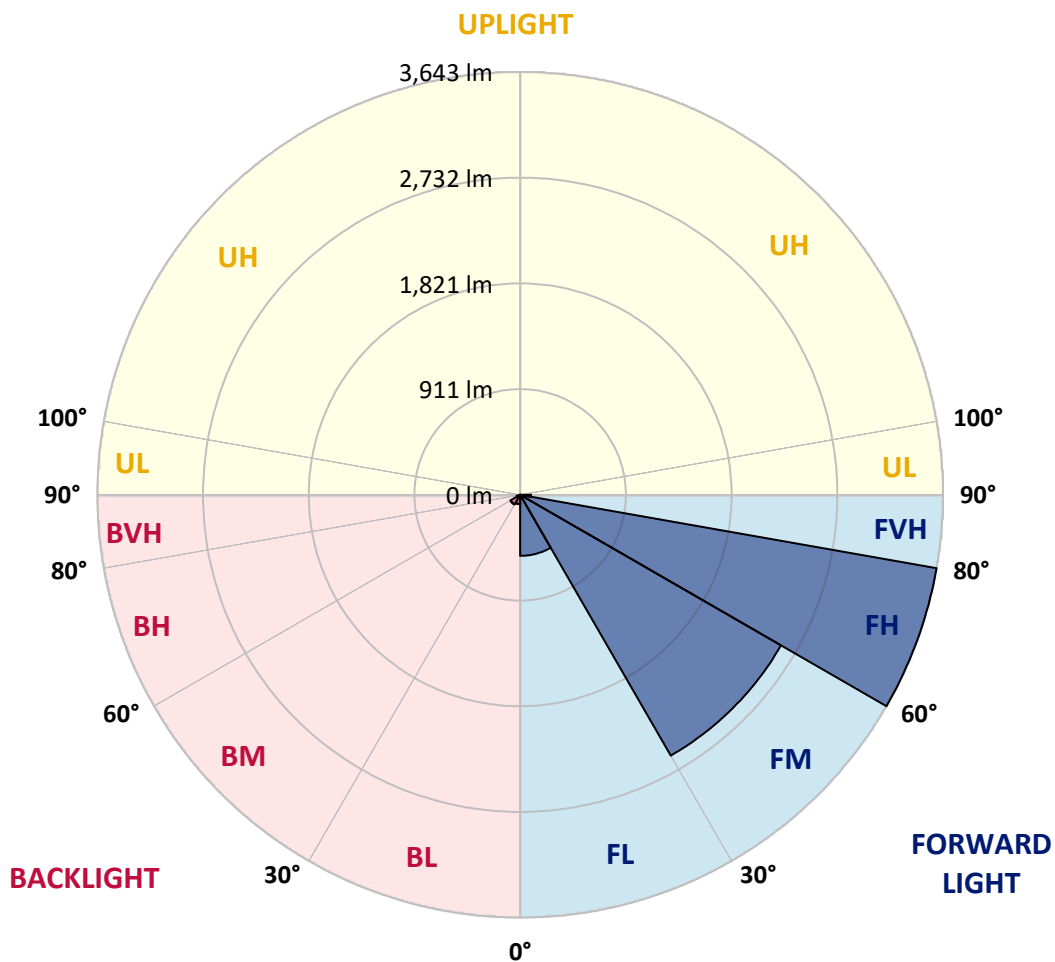
CATALOG NUMBER: ECM-E04-LED-E1-SL4-HSS-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	526.0	7.4			
FM	(30°-60°)	2594.7	36.7			
FH	(60°-80°)	3642.8	51.5			G2/5000
FVH	(80°-90°)	93.9	1.3			G1/100
BL	(0°-30°)	80.1	1.1	B0/110		
BM	(30°-60°)	96.1	1.4	B0/220		
BH	(60°-80°)	30.7	0.4	B0/110		G0/110
BVH	(80°-90°)	3.6	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8
2.5°	712.0	704.0	694.8	694.8	683.1	683.1	676.1	657.6	655.3	644.9	634.5
5°	908.8	901.9	890.3	880.0	870.7	854.5	843.0	820.9	796.6	773.4	752.6
7.5°	1101.1	1097.6	1076.8	1073.4	1058.3	1031.6	1008.5	976.1	934.4	901.9	863.8
10°	1279.4	1271.3	1266.6	1247.0	1225.0	1196.0	1160.2	1120.7	1072.2	1021.2	966.8
12.5°	1420.7	1416.1	1395.2	1387.1	1363.9	1335.0	1289.8	1238.9	1190.3	1124.3	1060.6
15°	1526.0	1517.9	1504.0	1491.3	1463.6	1438.0	1396.3	1340.8	1281.7	1209.9	1133.5
17.5°	1614.1	1599.0	1595.4	1575.8	1546.9	1516.8	1470.5	1419.5	1350.1	1278.2	1194.9
20°	1732.1	1711.3	1704.3	1675.3	1641.8	1600.2	1546.9	1483.2	1410.2	1331.5	1245.8
22.5°	1871.0	1856.0	1840.9	1815.5	1772.6	1713.6	1636.0	1566.6	1473.9	1387.1	1294.4
25°	2067.9	2055.2	2030.8	1996.1	1942.9	1872.2	1778.5	1676.5	1567.7	1456.6	1347.7
27.5°	2258.9	2247.3	2230.0	2203.4	2143.2	2065.6	1949.8	1820.1	1682.4	1548.1	1427.6
30°	2438.4	2427.9	2410.6	2384.0	2330.7	2254.3	2123.5	1984.5	1813.2	1656.8	1512.1
32.5°	2631.8	2628.3	2608.7	2570.4	2524.1	2421.0	2278.6	2129.2	1955.5	1774.9	1605.9
35°	2850.6	2824.0	2805.4	2767.2	2688.5	2578.4	2411.7	2248.5	2065.6	1880.3	1691.6
37.5°	3035.9	3010.4	2987.3	2938.6	2842.5	2702.4	2513.7	2334.2	2145.5	1956.8	1764.6
40°	3171.3	3158.6	3130.8	3067.2	2959.4	2792.7	2588.9	2393.2	2203.4	2013.5	1823.5
42.5°	3272.0	3252.4	3221.1	3155.1	3027.7	2837.8	2619.0	2417.6	2230.0	2048.2	1861.8
45°	3309.1	3292.9	3263.9	3192.1	3054.4	2850.6	2617.9	2410.6	2231.1	2058.7	1887.2
47.5°	3287.1	3270.9	3245.4	3178.2	3042.8	2835.5	2597.1	2390.9	2219.6	2062.1	1910.5
50°	3214.1	3204.9	3185.2	3128.5	3006.9	2806.5	2578.4	2380.6	2217.2	2079.5	1942.9
52.5°	3207.2	3201.5	3177.1	3120.4	2996.5	2797.3	2576.1	2386.3	2237.0	2101.4	1966.0
55°	3919.2	3837.0	3652.9	3496.7	3239.6	2933.9	2693.2	2480.1	2320.3	2188.3	2093.4
57.5°	5570.3	5447.6	5205.6	4908.1	4317.6	3737.6	3273.2	2937.5	2771.8	2711.7	2747.6
60°	6343.8	6321.7	6283.6	6142.3	5840.1	5341.2	4785.3	4184.4	3943.6	3922.8	3995.7
62.5°	6710.8	6696.9	6708.5	6691.1	6597.3	6451.4	6291.6	6032.4	5793.8	5639.9	5313.3
65°	6879.8	6889.1	6955.1	7007.2	7018.8	7057.0	7173.9	7497.0	7733.2	7336.0	6429.5
67.5°	6450.3	6504.8	6656.4	6846.2	7068.6	7283.9	7631.3	8312.1	8797.3	8330.6	7043.1
69°	5339.9	5366.6	5737.1	6094.8	6637.9	7017.7	7521.3	8414.0	8959.4	8432.5	6994.4
70°	4204.1	4228.4	4625.6	5111.8	6030.1	6518.6	7177.5	8241.5	8807.6	8297.0	6744.4
72.5°	1896.5	1861.8	2001.9	2262.4	3260.4	4036.2	5188.3	6677.2	7266.6	6647.1	5045.8
75°	1324.6	1309.5	1324.6	1325.7	1480.8	1910.5	2410.6	3619.4	4476.1	3862.5	2410.6
77.5°	1025.9	1015.4	1005.1	993.5	1012.0	1133.5	1182.1	1284.0	1667.3	1576.9	919.3
80°	811.7	802.4	827.9	819.7	819.7	833.6	824.3	786.2	714.4	662.2	592.8
82.5°	377.4	379.7	379.7	412.2	496.7	580.0	606.7	568.5	504.8	429.5	346.2
85°	35.9	40.6	68.3	105.3	209.6	236.3	237.3	196.8	196.8	155.1	125.1
87.5°	0.0	1.2	1.2	1.2	10.5	29.0	24.4	6.9	3.5	3.5	5.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8
2.5°	616.0	612.6	598.5	584.7	572.0	558.1	545.3	532.5	518.7	508.3	495.5
5°	720.2	694.8	665.8	638.0	610.2	581.3	551.2	524.5	496.7	471.3	446.9
7.5°	825.5	775.7	736.4	686.6	641.4	596.2	554.6	511.7	472.4	435.4	400.7
10°	914.7	854.5	793.2	729.5	664.6	604.4	546.5	495.5	443.4	398.3	355.5
12.5°	987.6	911.2	835.9	756.0	683.1	606.7	535.0	473.6	412.2	361.2	317.2
15°	1053.6	965.6	875.4	782.7	690.1	603.2	523.3	446.9	384.5	326.5	276.7
17.5°	1106.9	1006.1	904.2	800.1	700.5	598.5	508.3	428.4	355.5	295.2	246.6
20°	1153.3	1047.8	937.8	820.9	707.4	597.5	495.5	405.3	330.0	266.3	218.8
22.5°	1196.0	1090.7	972.5	847.6	717.9	596.2	484.0	387.9	308.0	244.3	196.8
25°	1244.7	1133.5	1009.7	875.4	736.4	600.9	477.0	374.0	288.3	223.5	179.5
27.5°	1299.1	1182.1	1053.6	910.1	760.6	610.2	474.7	358.9	271.0	203.7	165.6
30°	1375.5	1240.1	1097.6	944.8	782.7	620.6	472.4	349.6	253.5	188.8	151.6
32.5°	1442.6	1296.8	1146.3	980.7	807.0	631.1	471.3	337.0	237.3	173.7	141.3
35°	1513.2	1348.8	1188.0	1015.4	827.9	642.6	470.1	327.7	222.2	158.7	130.8
37.5°	1574.6	1392.9	1220.4	1045.5	851.0	653.0	471.3	319.6	208.4	145.9	121.5
40°	1626.7	1438.0	1256.3	1073.4	875.4	669.2	472.4	311.5	194.5	134.3	113.5
42.5°	1673.0	1480.8	1294.4	1104.5	903.1	687.8	479.3	304.5	182.9	123.9	105.3
45°	1708.9	1520.2	1336.2	1148.6	948.3	717.9	492.1	299.8	171.3	114.6	98.4
47.5°	1746.0	1578.1	1406.8	1218.0	1014.3	765.4	514.0	298.7	162.1	107.7	92.7
50°	1797.0	1636.0	1469.3	1288.7	1074.5	814.0	540.7	299.8	150.5	100.7	86.8
52.5°	1834.0	1695.1	1550.4	1411.4	1218.0	962.2	643.7	320.8	144.7	95.0	79.9
55°	2052.8	2028.5	2032.0	2055.2	1905.9	1637.2	1076.8	463.1	170.2	107.7	78.8
57.5°	2894.6	2980.3	3030.0	3028.9	2782.3	2307.6	1446.1	595.1	189.9	125.1	93.8
60°	4001.4	3936.7	3845.2	3619.4	3291.7	2634.1	1617.5	640.3	164.4	99.6	85.7
62.5°	4979.8	4600.1	4263.2	3897.3	3467.7	2747.6	1652.2	636.8	143.6	75.3	60.2
65°	5590.1	4906.9	4362.8	3904.3	3398.3	2652.6	1563.0	584.7	121.5	61.4	49.8
67.5°	5736.0	4741.4	3971.4	3386.7	2839.1	2064.4	1147.4	440.0	95.0	50.9	44.0
69°	5417.5	4214.6	3290.6	2627.2	2065.6	1369.7	709.7	277.9	72.9	46.3	40.6
70°	4983.4	3665.7	2680.4	2108.4	1529.6	962.2	496.7	195.7	59.1	42.9	37.0
72.5°	3206.1	1925.5	1317.7	917.0	631.1	383.2	194.5	88.0	45.2	35.9	30.1
75°	1243.5	712.0	516.3	392.5	306.9	213.0	118.1	56.7	38.2	30.1	23.1
77.5°	612.6	469.0	383.2	262.8	152.8	95.0	63.7	44.0	31.3	22.0	15.1
80°	484.0	321.9	192.2	119.2	90.4	68.3	48.6	35.9	23.1	13.9	10.5
82.5°	247.8	135.4	99.6	81.1	67.1	53.2	39.3	25.5	15.1	9.3	8.2
85°	77.6	56.7	50.9	49.8	46.3	38.2	27.8	16.2	9.3	5.8	5.8
87.5°	5.8	8.2	10.5	8.2	9.3	8.2	10.5	6.9	4.6	4.6	3.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CATALOG NUMBER: ECM-E04-LED-E1-SL4-HSS-7030

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8
2.5°	486.3	472.4	459.7	451.6	436.5	430.7	424.9	422.6	412.2	414.5	405.3
5°	424.9	400.7	382.1	363.5	346.2	333.4	323.1	310.3	299.8	295.2	285.9
7.5°	369.4	338.1	313.8	294.1	273.3	257.1	243.2	233.9	224.6	215.3	210.7
10°	320.8	287.2	259.4	239.7	219.9	206.1	195.7	188.8	182.9	179.5	178.3
12.5°	275.6	243.2	217.6	200.3	185.2	178.3	173.7	170.2	169.0	167.9	167.9
15°	240.9	208.4	188.8	176.0	169.0	165.6	164.4	162.1	159.8	158.7	158.7
17.5°	208.4	184.1	170.2	163.3	159.8	157.5	155.1	152.8	150.5	149.3	149.3
20°	186.4	166.7	159.8	155.1	151.6	149.3	145.9	143.6	142.4	141.3	140.0
22.5°	169.0	156.4	151.6	148.2	143.6	140.0	137.7	135.4	133.1	132.0	130.8
25°	156.4	148.2	144.7	140.0	135.4	132.0	128.5	125.1	122.8	121.5	119.2
27.5°	147.0	141.3	136.6	130.8	126.2	122.8	119.2	115.8	113.5	111.2	110.0
30°	139.0	133.1	127.4	122.8	116.9	113.5	108.9	105.3	104.2	101.9	99.6
32.5°	130.8	125.1	119.2	113.5	107.7	103.0	100.7	96.1	93.8	92.7	90.4
35°	121.5	115.8	108.9	104.2	98.4	93.8	90.4	86.8	84.5	82.2	81.1
37.5°	113.5	106.6	99.6	93.8	89.1	84.5	81.1	77.6	75.3	72.9	71.7
40°	104.2	97.3	90.4	84.5	79.9	76.5	72.9	69.4	67.1	66.0	66.0
42.5°	96.1	88.0	81.1	76.5	72.9	68.3	64.8	61.4	60.2	59.1	60.2
45°	88.0	79.9	74.0	69.4	66.0	61.4	57.8	55.5	54.4	55.5	56.7
47.5°	81.1	72.9	67.1	63.7	60.2	56.7	53.2	50.9	50.9	53.2	55.5
50°	74.0	66.0	61.4	59.1	55.5	52.1	47.5	46.3	47.5	49.8	52.1
52.5°	67.1	57.8	54.4	53.2	49.8	46.3	42.9	41.6	42.9	45.2	44.0
55°	60.2	50.9	49.8	48.6	45.2	40.6	37.0	37.0	37.0	35.9	33.6
57.5°	57.8	45.2	44.0	42.9	39.3	34.7	32.4	30.1	29.0	25.5	24.4
60°	60.2	40.6	40.6	38.2	34.7	30.1	26.7	23.1	20.8	18.5	18.5
62.5°	48.6	37.0	35.9	33.6	29.0	24.4	20.8	17.4	16.2	15.1	15.1
65°	39.3	33.6	31.3	27.8	24.4	19.7	16.2	13.9	12.8	12.8	13.9
67.5°	35.9	30.1	26.7	23.1	19.7	15.1	12.8	11.6	11.6	12.8	12.8
69°	33.6	27.8	24.4	20.8	17.4	13.9	11.6	11.6	11.6	11.6	12.8
70°	31.3	26.7	23.1	19.7	15.1	11.6	10.5	10.5	11.6	11.6	12.8
72.5°	24.4	20.8	19.7	16.2	11.6	10.5	9.3	10.5	10.5	11.6	11.6
75°	18.5	15.1	15.1	12.8	9.3	8.2	8.2	9.3	9.3	10.5	10.5
77.5°	12.8	10.5	10.5	9.3	8.2	6.9	6.9	8.2	9.3	9.3	10.5
80°	9.3	8.2	6.9	8.2	6.9	5.8	6.9	8.2	8.2	9.3	9.3
82.5°	6.9	6.9	6.9	6.9	5.8	5.8	6.9	6.9	8.2	9.3	9.3
85°	5.8	5.8	5.8	5.8	5.8	5.8	5.8	6.9	6.9	8.2	8.2
87.5°	3.5	3.5	3.5	4.6	4.6	5.8	5.8	5.8	5.8	6.9	6.9
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: P162616
 CATALOG NUMBER: ECM-E04-LED-E1-SL4-HSS-7030

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	533.8	533.8	533.8	533.8
2.5°	403.0	401.8	397.1	398.3
5°	282.5	275.6	280.2	279.0
7.5°	207.3	206.1	205.0	207.3
10°	177.2	177.2	176.0	177.2
12.5°	166.7	166.7	166.7	166.7
15°	158.7	158.7	157.5	157.5
17.5°	149.3	149.3	149.3	148.2
20°	140.0	139.0	139.0	139.0
22.5°	129.7	128.5	128.5	128.5
25°	119.2	118.1	118.1	118.1
27.5°	108.9	107.7	106.6	106.6
30°	98.4	97.3	96.1	96.1
32.5°	88.0	86.8	85.7	85.7
35°	78.8	78.8	77.6	76.5
37.5°	70.6	70.6	70.6	70.6
40°	64.8	66.0	66.0	66.0
42.5°	61.4	62.5	63.7	64.8
45°	59.1	61.4	62.5	62.5
47.5°	57.8	59.1	60.2	60.2
50°	53.2	52.1	52.1	52.1
52.5°	42.9	40.6	39.3	38.2
55°	31.3	30.1	27.8	27.8
57.5°	22.0	22.0	20.8	20.8
60°	17.4	17.4	16.2	17.4
62.5°	15.1	15.1	15.1	15.1
65°	13.9	13.9	13.9	13.9
67.5°	13.9	13.9	13.9	13.9
69°	12.8	12.8	12.8	12.8
70°	12.8	12.8	12.8	12.8
72.5°	11.6	11.6	11.6	11.6
75°	10.5	11.6	11.6	11.6
77.5°	10.5	10.5	10.5	10.5
80°	9.3	9.3	10.5	10.5
82.5°	9.3	9.3	9.3	9.3
85°	8.2	8.2	9.3	9.3
87.5°	6.9	6.9	8.2	8.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)