

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: P162456

Luminaire Tested: **ECM-E04-LED-E1-SL3-HSS-7030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P162456
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33727)
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-SL3-HSS-7030
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 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: 6022.5 lumens
Efficiency: N/A
Efficacy: 62.0 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 1' x H: 0.1')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B0 - U0 - G2

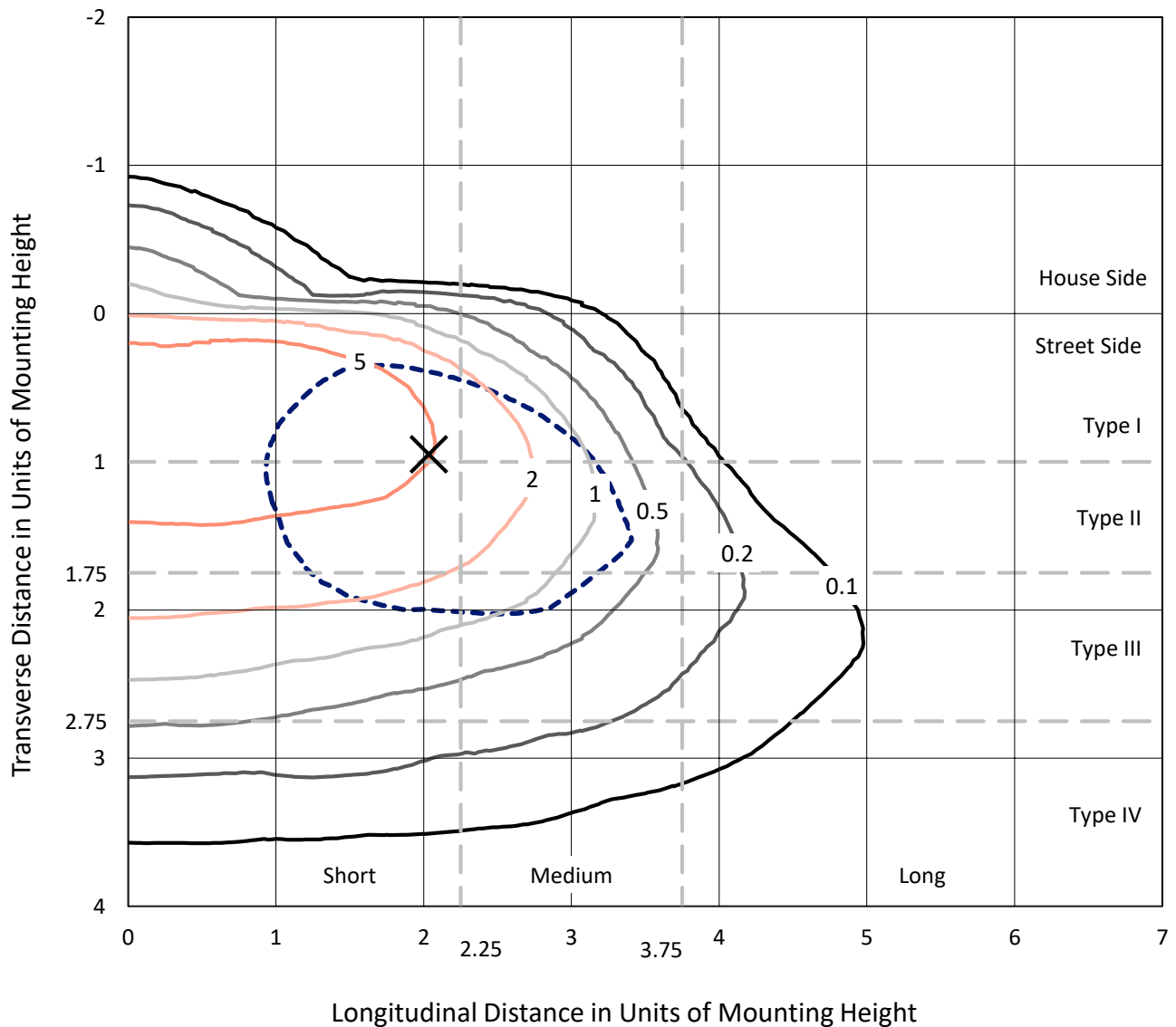
Input Watts (W): 97.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

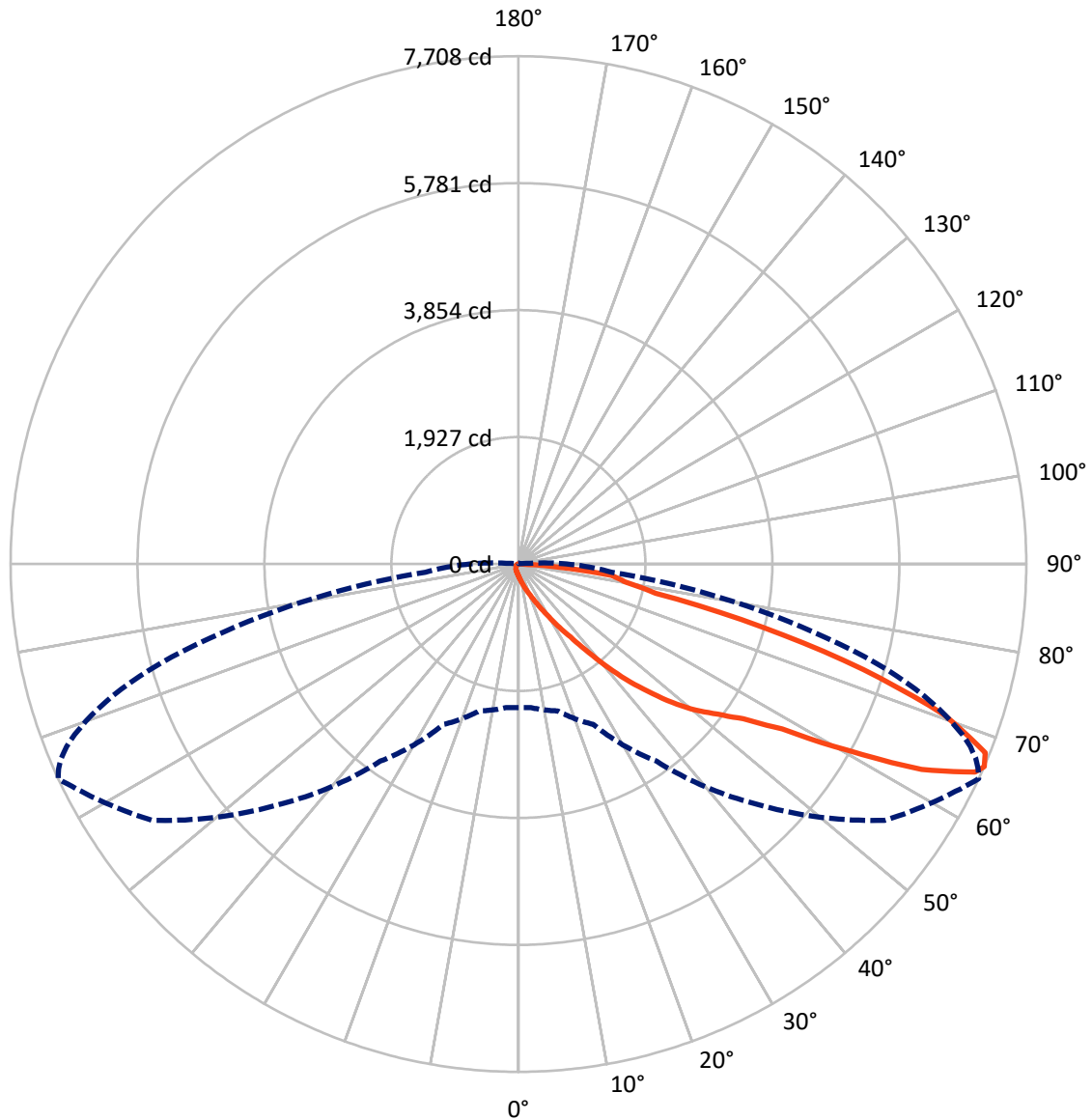
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.9 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	130.6	0.0	130.6
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	5891.9	0.0	5891.9
	% Fixture	97.8	0.0	97.8
Total	Lumens	6022.5	0.0	6022.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.4	0.3
10°-20°	86.3	1.4
20°-30°	186.1	3.1
30°-40°	397.4	6.6
40°-50°	878.9	14.6
50°-60°	1489.5	24.7
60°-70°	1987.6	33.0
70°-80°	875.5	14.5
80°-90°	100.9	1.7
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°	6022.5	100.0
0°-180°	6022.5	100.0



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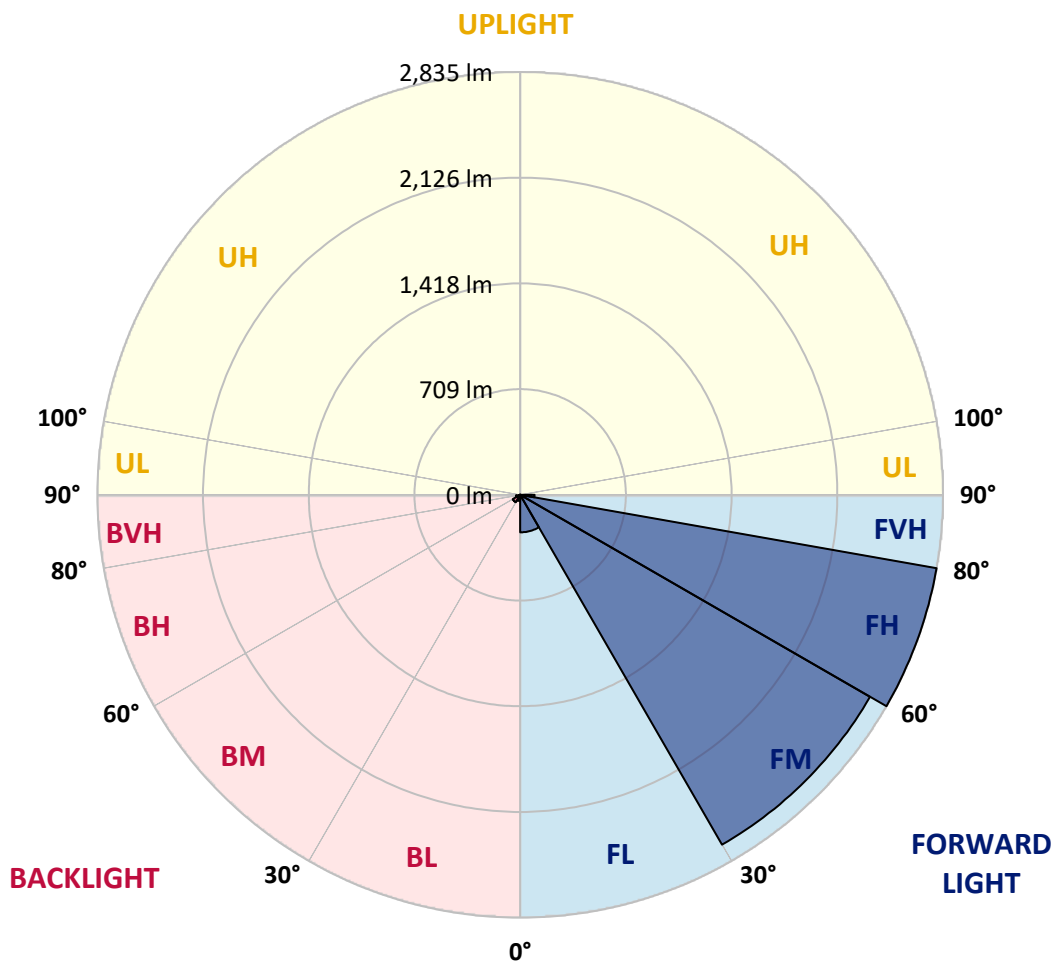
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	251.6	4.2			
FM	(30°-60°)	2708.5	45.0			
FH	(60°-80°)	2835.1	47.1			G2/5000
FVH	(80°-90°)	96.8	1.6			G1/100
BL	(0°-30°)	41.2	0.7	B0/110		
BM	(30°-60°)	57.3	1.0	B0/220		
BH	(60°-80°)	28.0	0.5	B0/110		G0/110
BVH	(80°-90°)	4.0	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	181.8	181.8	181.8	181.8	181.8	181.8	181.8	181.8	181.8	181.8	181.8
2.5°	229.3	228.1	223.5	223.5	216.5	211.9	206.1	200.3	200.3	199.1	198.0
5°	303.4	296.4	295.2	282.5	272.1	257.1	243.2	224.6	222.2	219.9	218.8
7.5°	385.6	384.5	374.0	358.9	338.1	310.3	282.5	252.5	247.8	245.5	240.9
10°	492.1	486.3	472.4	446.9	415.6	378.6	333.4	285.9	280.2	275.6	273.3
12.5°	593.9	583.6	575.4	543.0	503.7	449.2	394.8	326.5	321.9	316.1	306.9
15°	688.9	679.7	665.8	638.0	593.9	525.6	462.0	378.6	367.0	358.9	351.9
17.5°	763.1	757.2	741.0	709.7	662.2	602.1	525.6	431.8	422.6	412.2	399.4
20°	833.6	825.5	800.1	757.2	706.3	659.9	600.9	501.4	488.6	475.9	462.0
22.5°	900.8	892.6	851.0	780.4	725.9	706.3	685.4	580.0	560.4	550.0	536.1
25°	994.6	977.2	912.4	800.1	727.1	742.1	778.1	682.0	663.5	648.4	626.4
27.5°	1120.7	1097.6	995.8	829.0	731.8	781.6	884.6	805.8	786.2	768.8	744.4
30°	1263.2	1248.1	1126.6	898.5	765.4	839.4	1003.8	963.3	940.1	919.3	890.3
32.5°	1406.8	1386.0	1265.5	1030.5	855.6	951.7	1153.3	1146.3	1116.1	1096.5	1065.2
35°	1533.0	1522.5	1433.4	1247.0	1061.7	1148.6	1352.4	1360.4	1333.9	1313.0	1278.2
37.5°	1618.7	1618.7	1601.3	1479.7	1389.4	1454.3	1645.2	1646.5	1619.8	1572.3	1555.0
40°	1662.7	1675.3	1737.9	1761.1	1756.4	1839.9	2029.7	2008.9	1986.8	1962.5	1904.6
42.5°	1753.0	1764.6	1897.7	2057.5	2161.7	2271.7	2402.5	2395.5	2369.0	2324.9	2271.7
45°	1905.9	1920.8	2079.5	2333.1	2547.3	2703.5	2786.9	2754.5	2727.9	2686.2	2658.3
47.5°	2100.3	2129.2	2308.7	2622.5	2880.7	3138.9	3225.7	3140.1	3116.8	3084.4	3039.3
50°	2307.6	2335.4	2526.4	2885.3	3177.1	3485.1	3629.8	3485.1	3451.5	3441.1	3390.1
52.5°	2487.0	2510.1	2694.3	3088.0	3404.0	3765.3	3976.0	3784.9	3760.7	3725.9	3688.8
55°	2593.5	2612.1	2784.6	3185.2	3558.0	4017.6	4310.6	4142.7	4106.8	4092.9	4039.7
57.5°	2629.5	2648.0	2803.1	3197.9	3641.3	4248.1	4717.0	4722.9	4680.0	4630.2	4614.0
60°	2629.5	2650.3	2781.1	3166.6	3722.5	4493.6	5258.9	5741.7	5649.1	5639.9	5580.8
62.5°	2520.6	2540.3	2672.3	3070.6	3831.3	4824.7	6013.7	6866.0	6839.3	6779.1	6681.8
65°	2284.4	2296.0	2425.6	2825.2	3789.6	5129.3	6667.9	7613.9	7571.1	7452.9	7328.0
66°	2177.9	2187.2	2308.7	2685.0	3652.9	5170.9	6783.8	7707.7	7637.1	7537.5	7396.3
67.5°	2023.9	2040.1	2125.8	2424.5	3325.3	5026.1	6710.8	7641.7	7580.3	7459.9	7318.7
70°	1351.1	1339.6	1641.8	1860.7	2533.4	4095.2	6020.8	6861.3	6862.5	6805.8	6749.1
72.5°	641.4	648.4	736.4	1145.1	1658.0	2735.9	4792.3	5476.6	5555.2	5453.4	5382.8
75°	460.8	471.3	524.5	700.5	988.7	1641.8	3106.5	3830.1	3832.4	3651.8	3490.8
77.5°	134.3	140.0	196.8	431.8	741.0	1108.1	1784.2	2129.2	2079.5	1949.8	1828.3
80°	55.5	55.5	57.8	137.7	297.5	752.6	1248.1	1639.5	1633.7	1583.9	1512.1
82.5°	20.8	22.0	27.8	56.7	70.6	185.2	832.5	1423.0	1419.5	1348.8	1297.9
85°	2.3	2.3	6.9	24.4	26.7	34.7	166.7	627.5	624.1	627.5	550.0
87.5°	0.0	0.0	1.2	2.3	3.5	4.6	6.9	24.4	26.7	25.5	23.1
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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	181.8	181.8	181.8	181.8	181.8	181.8	181.8	181.8	181.8	181.8	181.8
2.5°	198.0	195.7	195.7	194.5	194.5	194.5	193.4	192.2	192.2	191.1	189.9
5°	216.5	214.2	213.0	210.7	209.6	208.4	206.1	205.0	202.6	201.4	200.3
7.5°	238.6	233.9	232.7	229.3	225.8	223.5	221.2	217.6	215.3	210.7	209.6
10°	266.3	260.5	255.9	251.2	247.8	242.0	238.6	233.9	229.3	225.8	222.2
12.5°	302.1	294.1	287.2	282.5	274.4	267.4	260.5	257.1	247.8	243.2	237.3
15°	341.6	332.3	324.2	314.9	309.2	297.5	288.3	277.9	273.3	265.1	255.9
17.5°	392.5	377.4	364.7	355.5	343.9	332.3	321.9	311.5	297.5	288.3	276.7
20°	446.9	434.1	416.9	400.7	386.8	372.8	357.8	343.9	331.1	316.1	302.1
22.5°	516.3	497.8	477.0	460.8	442.3	427.2	406.4	387.9	367.0	347.3	331.1
25°	604.4	580.0	560.4	537.3	515.3	492.1	466.7	443.4	416.9	398.3	370.5
27.5°	713.3	690.1	663.5	633.4	611.3	576.6	543.0	514.0	482.9	453.9	422.6
30°	852.2	818.6	790.8	761.9	717.9	684.3	644.9	605.5	562.7	533.8	486.3
32.5°	1018.9	983.0	941.4	899.6	859.2	811.7	763.1	714.4	666.9	613.6	565.1
35°	1222.7	1179.8	1132.3	1087.3	1024.7	973.8	912.4	845.3	791.9	730.6	669.2
37.5°	1492.4	1421.8	1380.1	1332.6	1248.1	1178.7	1110.4	1043.2	949.4	884.6	797.8
40°	1830.6	1788.8	1720.5	1644.2	1567.7	1476.2	1383.7	1294.4	1185.7	1095.3	994.6
42.5°	2227.7	2166.3	2096.8	1986.8	1909.3	1801.6	1696.3	1578.1	1444.9	1329.2	1211.1
45°	2600.5	2527.5	2474.3	2364.4	2283.3	2155.9	2028.5	1903.4	1749.5	1600.2	1463.6
47.5°	3003.5	2943.2	2855.3	2766.1	2683.9	2540.3	2402.5	2250.9	2088.8	1911.6	1734.4
50°	3357.7	3310.2	3250.1	3142.4	3051.0	2930.5	2768.4	2602.8	2397.8	2221.9	2020.5
52.5°	3658.8	3621.7	3537.2	3460.7	3378.5	3265.0	3120.4	2961.7	2740.5	2547.3	2318.0
55°	4014.2	3987.6	3913.5	3866.0	3793.1	3684.2	3548.8	3401.7	3167.9	2957.1	2697.8
57.5°	4596.6	4575.8	4511.0	4491.2	4419.5	4324.5	4157.8	4000.4	3727.1	3465.4	3169.0
60°	5561.1	5519.4	5424.4	5375.9	5224.1	5096.7	4880.3	4663.8	4333.8	4000.4	3643.7
62.5°	6593.9	6477.0	6296.3	6141.1	5925.8	5704.7	5415.2	5084.1	4697.3	4301.4	3891.5
65°	7150.8	6951.7	6723.6	6477.0	6197.9	5872.6	5507.9	5110.7	4695.0	4277.0	3844.0
66°	7214.5	6989.8	6747.8	6473.5	6163.2	5816.9	5446.5	5029.6	4597.8	4190.2	3757.2
67.5°	7134.6	6899.6	6643.7	6339.1	6003.4	5644.5	5255.4	4822.4	4406.7	3993.4	3571.9
70°	6575.4	6341.5	6113.4	5792.7	5434.9	5073.6	4705.5	4221.5	3827.8	3448.1	3072.9
72.5°	5250.8	5092.1	4866.3	4592.0	4243.4	3819.8	3512.9	3079.8	2738.2	2370.1	2079.5
75°	3281.4	3057.9	2778.8	2429.1	2162.8	1818.9	1639.5	1310.7	1116.1	946.0	781.6
77.5°	1677.8	1509.8	1314.1	1117.3	928.6	741.0	573.1	405.3	273.3	189.9	141.3
80°	1386.0	1237.8	1075.7	896.2	729.5	566.2	407.6	277.9	177.2	115.8	90.4
82.5°	1145.1	1020.0	875.4	708.6	563.8	444.6	309.2	201.4	125.1	81.1	63.7
85°	487.5	442.3	341.6	271.0	203.7	150.5	105.3	70.6	49.8	40.6	37.0
87.5°	20.8	23.1	22.0	17.4	12.8	12.8	11.6	9.3	9.3	9.3	9.3
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):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	181.8	181.8	181.8	181.8	181.8	181.8	181.8	181.8	181.8	181.8	181.8
2.5°	189.9	188.8	187.5	187.5	186.4	185.2	178.3	172.6	165.6	161.0	156.4
5°	198.0	196.8	194.5	193.4	191.1	189.9	174.9	162.1	151.6	143.6	137.7
7.5°	206.1	205.0	201.4	198.0	196.8	194.5	170.2	154.1	140.0	130.8	125.1
10°	216.5	213.0	209.6	205.0	201.4	198.0	165.6	144.7	129.7	121.5	115.8
12.5°	231.6	225.8	219.9	214.2	209.6	203.7	163.3	136.6	121.5	112.3	106.6
15°	248.9	240.9	233.9	226.9	218.8	213.0	158.7	129.7	114.6	105.3	98.4
17.5°	265.1	255.9	245.5	235.0	226.9	218.8	154.1	122.8	107.7	98.4	91.5
20°	288.3	274.4	261.7	248.9	237.3	226.9	147.0	115.8	101.9	91.5	84.5
22.5°	313.8	297.5	281.3	264.0	248.9	235.0	141.3	110.0	96.1	85.7	77.6
25°	346.2	326.5	304.5	282.5	265.1	246.6	135.4	104.2	90.4	79.9	71.7
27.5°	391.4	363.5	339.3	311.5	284.8	264.0	130.8	99.6	84.5	74.0	66.0
30°	452.7	412.2	374.0	343.9	312.6	282.5	126.2	93.8	79.9	68.3	59.1
32.5°	521.0	473.6	429.5	384.5	345.0	310.3	121.5	89.1	74.0	62.5	54.4
35°	605.5	545.3	486.3	434.1	386.8	340.4	116.9	84.5	69.4	56.7	48.6
37.5°	727.1	651.9	574.3	507.1	445.7	384.5	113.5	79.9	63.7	50.9	42.9
40°	893.9	796.6	701.7	610.2	530.2	453.9	108.9	75.3	59.1	46.3	38.2
42.5°	1074.5	956.3	831.3	728.2	618.3	522.2	104.2	70.6	54.4	41.6	33.6
45°	1299.1	1152.0	1000.4	860.3	725.9	602.1	99.6	66.0	48.6	37.0	29.0
47.5°	1544.5	1357.0	1185.7	1009.7	849.9	701.7	93.8	62.5	44.0	32.4	25.5
50°	1797.0	1599.0	1382.4	1182.1	992.3	801.2	88.0	56.7	39.3	29.0	20.8
52.5°	2069.0	1835.2	1614.1	1365.0	1144.0	932.1	82.2	52.1	35.9	25.5	17.4
55°	2415.3	2153.6	1894.2	1615.2	1348.8	1083.7	76.5	46.3	31.3	22.0	13.9
57.5°	2850.6	2540.3	2221.9	1907.0	1583.9	1282.8	71.7	40.6	26.7	18.5	11.6
60°	3261.6	2899.2	2513.7	2151.2	1786.5	1435.7	64.8	35.9	23.1	15.1	11.6
62.5°	3474.6	3061.3	2645.7	2246.2	1857.1	1490.1	57.8	30.1	19.7	12.8	10.5
65°	3422.5	3001.1	2598.2	2195.2	1814.3	1455.4	50.9	26.7	17.4	11.6	10.5
66°	3347.2	2930.5	2525.2	2142.0	1778.5	1418.4	47.5	25.5	16.2	11.6	9.3
67.5°	3182.8	2780.0	2393.2	2036.6	1680.1	1347.7	42.9	23.1	15.1	10.5	9.3
70°	2718.6	2352.7	2043.6	1726.4	1435.7	1135.8	34.7	19.7	12.8	9.3	9.3
72.5°	1799.3	1550.4	1344.2	1156.7	966.8	750.3	29.0	16.2	10.5	9.3	8.2
75°	678.4	613.6	526.8	473.6	413.3	362.4	23.1	10.5	8.2	8.2	8.2
77.5°	120.4	111.2	98.4	90.4	83.4	76.5	18.5	6.9	6.9	8.2	8.2
80°	81.1	75.3	68.3	62.5	57.8	52.1	12.8	5.8	6.9	6.9	8.2
82.5°	57.8	54.4	50.9	46.3	42.9	38.2	8.2	5.8	6.9	6.9	6.9
85°	34.7	32.4	30.1	27.8	24.4	23.1	5.8	5.8	5.8	6.9	6.9
87.5°	9.3	8.2	9.3	9.3	6.9	8.2	4.6	4.6	4.6	5.8	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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 CATALOG NUMBER: ECM-E04-LED-E1-SL3-HSS-7030

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	181.8	181.8	181.8	181.8	181.8
2.5°	154.1	154.1	151.6	155.1	155.1
5°	133.1	133.1	132.0	133.1	133.1
7.5°	121.5	120.4	120.4	120.4	121.5
10°	111.2	110.0	110.0	110.0	110.0
12.5°	101.9	100.7	99.6	100.7	100.7
15°	93.8	91.5	91.5	91.5	91.5
17.5°	86.8	84.5	83.4	83.4	83.4
20°	79.9	76.5	76.5	76.5	76.5
22.5°	72.9	69.4	69.4	69.4	69.4
25°	66.0	62.5	62.5	62.5	62.5
27.5°	60.2	56.7	56.7	56.7	56.7
30°	53.2	50.9	50.9	52.1	50.9
32.5°	48.6	45.2	45.2	46.3	46.3
35°	42.9	40.6	40.6	40.6	40.6
37.5°	37.0	34.7	34.7	34.7	34.7
40°	32.4	30.1	29.0	30.1	30.1
42.5°	27.8	25.5	24.4	24.4	24.4
45°	24.4	20.8	19.7	20.8	20.8
47.5°	19.7	17.4	17.4	18.5	18.5
50°	15.1	15.1	16.2	18.5	18.5
52.5°	13.9	13.9	16.2	18.5	18.5
55°	12.8	13.9	16.2	17.4	18.5
57.5°	11.6	13.9	16.2	17.4	17.4
60°	11.6	12.8	15.1	17.4	17.4
62.5°	10.5	11.6	13.9	16.2	16.2
65°	10.5	11.6	13.9	16.2	16.2
66°	10.5	11.6	13.9	16.2	16.2
67.5°	10.5	11.6	13.9	16.2	16.2
70°	10.5	11.6	13.9	15.1	15.1
72.5°	9.3	10.5	12.8	15.1	15.1
75°	9.3	10.5	12.8	15.1	15.1
77.5°	9.3	10.5	12.8	15.1	15.1
80°	9.3	10.5	12.8	13.9	15.1
82.5°	8.2	10.5	11.6	13.9	13.9
85°	8.2	9.3	11.6	12.8	13.9
87.5°	6.9	8.2	9.3	11.6	11.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)