

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: P162607

Luminaire Tested: **ECM-E03-LED-E1-SL4-HSS**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P162607
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-E03-LED-E1-SL4-HSS
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (63) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5803.9 lumens
Efficiency: N/A
Efficacy: 77.2 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 1' x H: 0.1')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B0 - U0 - G2

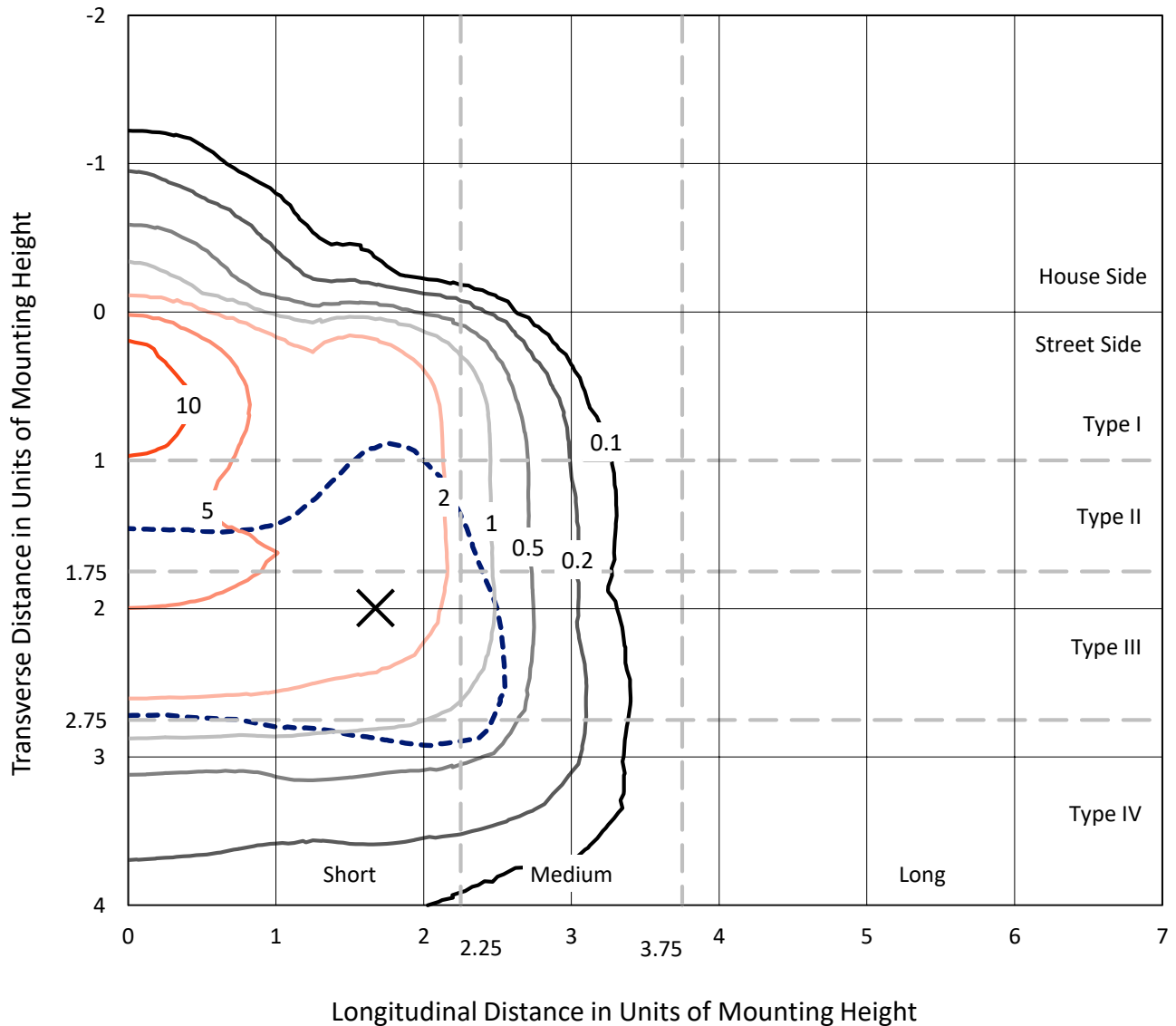
Input Watts (W): 75.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

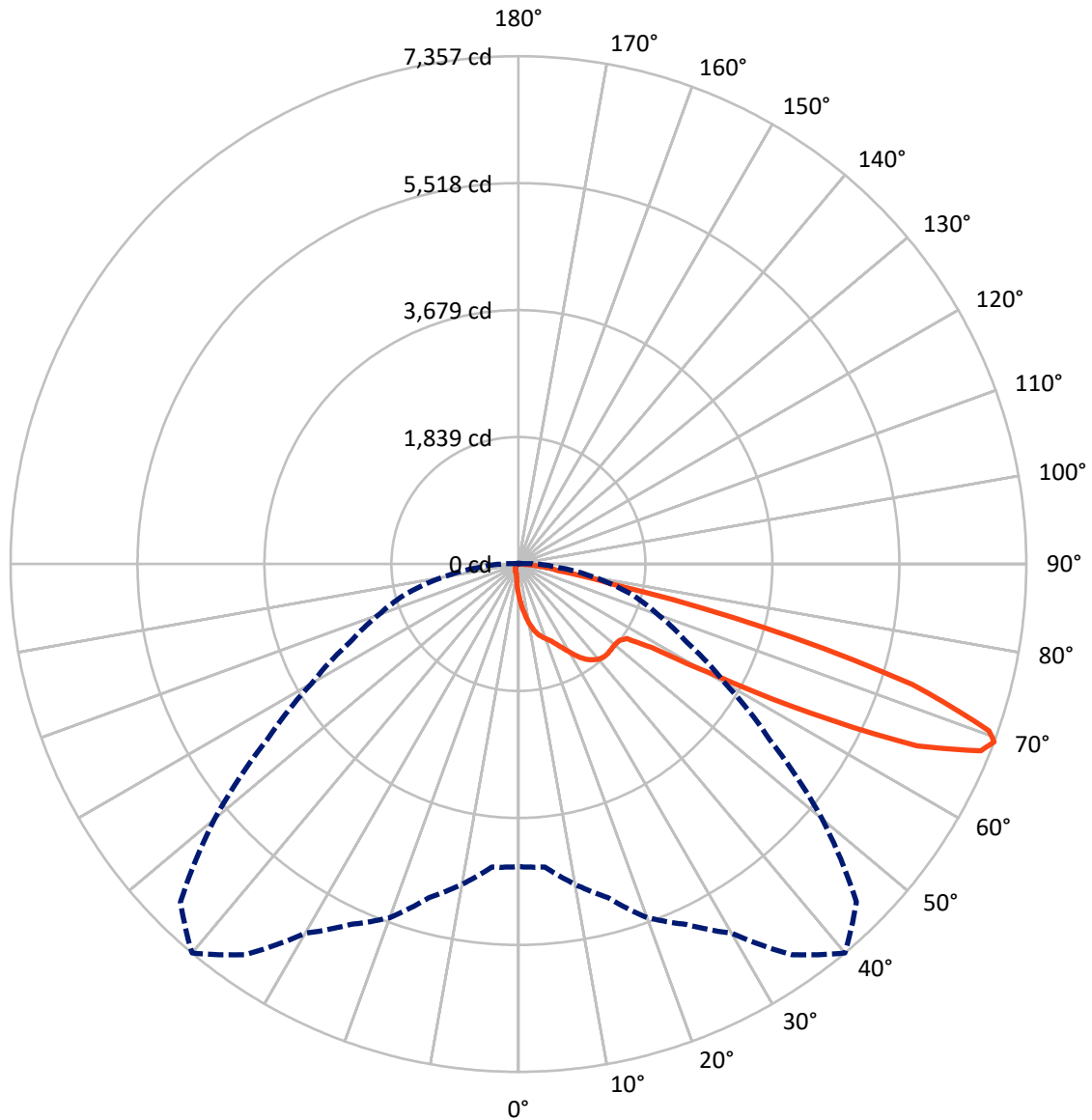


Based on 10 foot mounting height. Maximum calculated value = 13 fc
 Type IV - Short - Semi-Cutoff

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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	172.9	0.0	172.9
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	5631.0	0.0	5631.0
	% Fixture	97.0	0.0	97.0
Total	Lumens	5803.9	0.0	5803.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.1	0.8
10°-20°	155.3	2.7
20°-30°	297.3	5.1
30°-40°	494.4	8.5
40°-50°	669.0	11.5
50°-60°	1046.2	18.0
60°-70°	2151.0	37.1
70°-80°	865.5	14.9
80°-90°	80.1	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°	5803.9	100.0
0°-180°	5803.9	100.0



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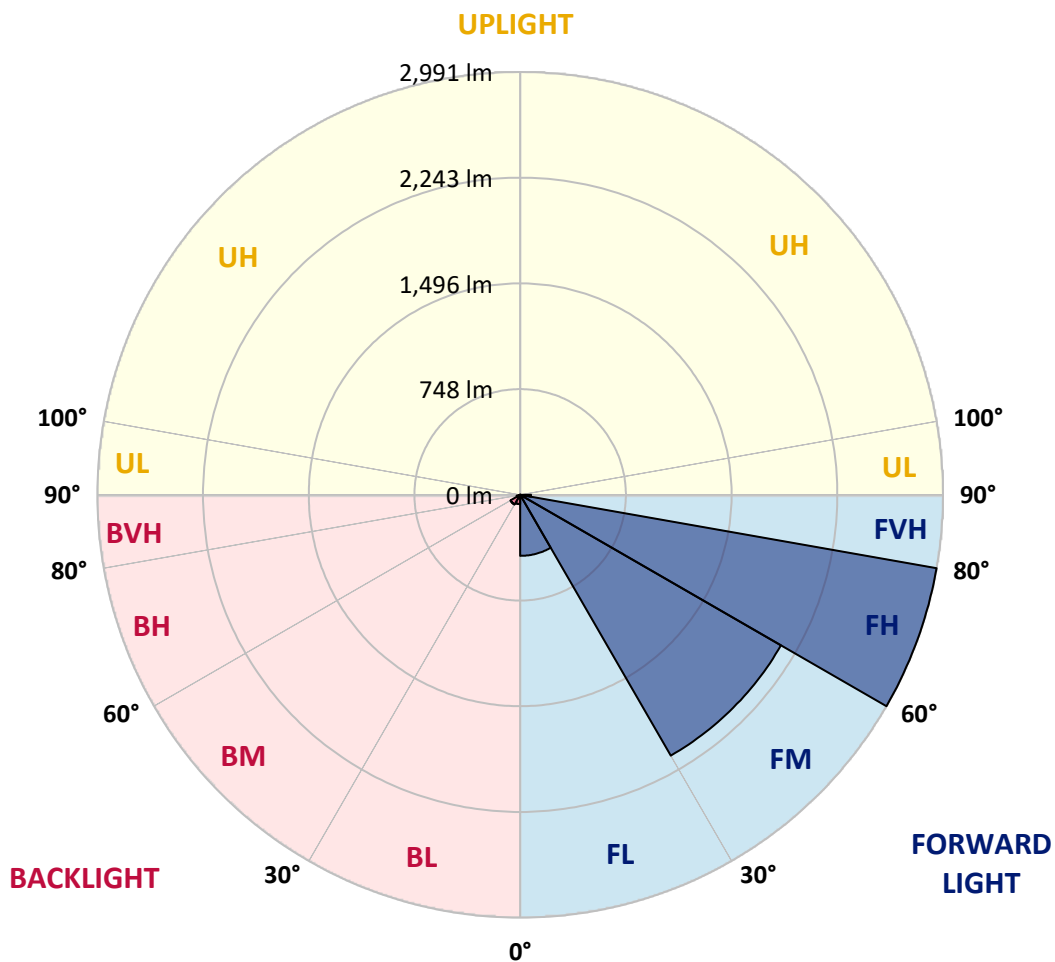
CATALOG NUMBER: ECM-E03-LED-E1-SL4-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	431.9	7.4			
FM	(30°-60°)	2130.7	36.7			
FH	(60°-80°)	2991.3	51.5			G2/5000
FVH	(80°-90°)	77.1	1.3			G1/100
BL	(0°-30°)	65.7	1.1	B0/110		
BM	(30°-60°)	78.9	1.4	B0/220		
BH	(60°-80°)	25.2	0.4	B0/110		G0/110
BVH	(80°-90°)	3.0	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	438.3	438.3	438.3	438.3	438.3	438.3	438.3	438.3	438.3	438.3	438.3
2.5°	584.7	578.1	570.5	570.5	560.9	560.9	555.2	540.0	538.1	529.6	521.0
5°	746.3	740.6	731.1	722.6	715.0	701.7	692.2	674.1	654.1	635.1	618.0
7.5°	904.2	901.3	884.2	881.4	869.0	847.1	828.1	801.5	767.3	740.6	709.3
10°	1050.6	1043.9	1040.1	1024.0	1005.9	982.1	952.7	920.3	880.4	838.6	793.9
12.5°	1166.6	1162.8	1145.7	1139.0	1120.0	1096.2	1059.1	1017.3	977.4	923.2	870.9
15°	1253.1	1246.4	1235.0	1224.6	1201.8	1180.8	1146.6	1101.0	1052.5	993.5	930.8
17.5°	1325.4	1313.0	1310.1	1294.0	1270.2	1245.5	1207.5	1165.6	1108.6	1049.6	981.2
20°	1422.3	1405.2	1399.5	1375.7	1348.2	1314.0	1270.2	1217.9	1158.0	1093.4	1023.0
22.5°	1536.4	1524.1	1511.7	1490.8	1455.6	1407.1	1343.4	1286.4	1210.3	1139.0	1062.9
25°	1698.1	1687.6	1667.6	1639.1	1595.4	1537.4	1460.4	1376.7	1287.3	1196.1	1106.7
27.5°	1854.9	1845.4	1831.2	1809.3	1759.9	1696.2	1601.1	1494.6	1381.5	1271.2	1172.3
30°	2002.3	1993.7	1979.5	1957.6	1913.9	1851.1	1743.7	1629.6	1488.9	1360.5	1241.7
32.5°	2161.1	2158.2	2142.1	2110.7	2072.7	1988.0	1871.1	1748.4	1605.8	1457.5	1318.7
35°	2340.8	2318.9	2303.7	2272.3	2207.7	2117.3	1980.4	1846.4	1696.2	1544.0	1389.1
37.5°	2492.9	2472.0	2453.0	2413.0	2334.1	2219.1	2064.1	1916.7	1761.8	1606.8	1449.0
40°	2604.1	2593.7	2570.9	2518.6	2430.1	2293.2	2125.9	1965.2	1809.3	1653.4	1497.4
42.5°	2686.8	2670.7	2645.0	2590.8	2486.2	2330.3	2150.6	1985.2	1831.2	1681.9	1528.8
45°	2717.3	2704.0	2680.2	2621.2	2508.1	2340.8	2149.7	1979.5	1832.1	1690.5	1549.7
47.5°	2699.2	2685.9	2665.0	2609.8	2498.6	2328.4	2132.6	1963.3	1822.6	1693.3	1568.8
50°	2639.3	2631.7	2615.5	2569.0	2469.1	2304.6	2117.3	1954.8	1820.7	1707.6	1595.4
52.5°	2633.6	2628.9	2608.9	2562.3	2460.6	2297.0	2115.4	1959.5	1836.9	1725.6	1614.4
55°	3218.3	3150.8	2999.6	2871.3	2660.2	2409.2	2211.5	2036.5	1905.3	1796.9	1719.0
57.5°	4574.1	4473.3	4274.6	4030.3	3545.4	3069.1	2687.8	2412.1	2276.1	2226.7	2256.2
60°	5209.2	5191.1	5159.8	5043.8	4795.6	4385.9	3929.5	3436.0	3238.3	3221.2	3281.1
62.5°	5510.6	5499.2	5508.7	5494.4	5417.4	5297.6	5166.4	4953.5	4757.6	4631.2	4363.0
65°	5649.4	5657.0	5711.2	5754.0	5763.5	5794.9	5890.9	6156.2	6350.1	6024.0	5279.6
67.5°	5296.7	5341.4	5465.9	5621.8	5804.4	5981.2	6266.5	6825.5	7223.9	6840.7	5783.5
69°	4384.9	4406.8	4711.0	5004.8	5450.7	5762.6	6176.1	6909.2	7357.0	6924.4	5743.5
70°	3452.2	3472.2	3798.3	4197.6	4951.6	5352.8	5893.8	6767.5	7232.4	6813.1	5538.2
72.5°	1557.3	1528.8	1643.9	1857.8	2677.3	3314.3	4260.4	5483.0	5967.0	5458.3	4143.4
75°	1087.7	1075.3	1087.7	1088.6	1216.0	1568.8	1979.5	2972.1	3675.6	3171.7	1979.5
77.5°	842.4	833.8	825.3	815.8	831.0	930.8	970.7	1054.4	1369.1	1294.9	754.9
80°	666.5	658.9	679.8	673.1	673.1	684.5	676.9	645.6	586.6	543.8	486.8
82.5°	309.9	311.8	311.8	338.5	407.9	476.3	498.2	466.8	414.5	352.7	284.3
85°	29.5	33.3	56.1	86.5	172.1	194.0	194.9	161.6	161.6	127.4	102.7
87.5°	0.0	1.0	1.0	1.0	8.6	23.8	20.0	5.7	2.9	2.9	4.8
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°	438.3	438.3	438.3	438.3	438.3	438.3	438.3	438.3	438.3	438.3	438.3
2.5°	505.8	503.0	491.5	480.1	469.7	458.3	447.8	437.3	425.9	417.4	406.9
5°	591.4	570.5	546.7	523.9	501.1	477.3	452.6	430.7	407.9	387.0	367.0
7.5°	677.9	637.0	604.7	563.8	526.7	489.6	455.4	420.2	387.9	357.5	329.0
10°	751.1	701.7	651.3	599.0	545.7	496.3	448.8	406.9	364.1	327.1	291.9
12.5°	811.0	748.2	686.4	620.8	560.9	498.2	439.3	388.9	338.5	296.6	260.5
15°	865.2	792.9	718.8	642.7	566.7	495.3	429.7	367.0	315.7	268.1	227.2
17.5°	908.9	826.2	742.5	657.0	575.2	491.5	417.4	351.8	291.9	242.4	202.5
20°	947.0	860.4	770.1	674.1	580.9	490.6	406.9	332.8	271.0	218.7	179.7
22.5°	982.1	895.6	798.6	696.0	589.5	489.6	397.4	318.5	252.9	200.6	161.6
25°	1022.1	930.8	829.1	718.8	604.7	493.4	391.7	307.1	236.7	183.5	147.4
27.5°	1066.8	970.7	865.2	747.3	624.6	501.1	389.8	294.7	222.5	167.3	136.0
30°	1129.5	1018.3	901.3	775.8	642.7	509.6	387.9	287.1	208.2	155.0	124.5
32.5°	1184.6	1064.9	941.3	805.3	662.7	518.2	387.0	276.7	194.9	142.6	116.0
35°	1242.6	1107.6	975.5	833.8	679.8	527.7	386.0	269.1	182.5	130.3	107.4
37.5°	1293.0	1143.8	1002.1	858.5	698.8	536.2	387.0	262.4	171.1	119.8	99.8
40°	1335.8	1180.8	1031.6	881.4	718.8	549.5	387.9	255.8	159.7	110.3	93.2
42.5°	1373.8	1216.0	1062.9	907.0	741.6	564.8	393.6	250.0	150.2	101.7	86.5
45°	1403.3	1248.3	1097.2	943.2	778.7	589.5	404.1	246.2	140.7	94.1	80.8
47.5°	1433.7	1295.9	1155.2	1000.2	832.9	628.5	422.1	245.3	133.1	88.4	76.1
50°	1475.6	1343.4	1206.5	1058.2	882.3	668.4	444.0	246.2	123.6	82.7	71.3
52.5°	1506.0	1391.9	1273.1	1159.0	1000.2	790.1	528.6	263.4	118.8	78.0	65.6
55°	1685.7	1665.7	1668.6	1687.6	1565.0	1344.4	884.2	380.3	139.8	88.4	64.7
57.5°	2376.9	2447.3	2488.1	2487.2	2284.7	1894.9	1187.5	488.7	155.9	102.7	77.0
60°	3285.8	3232.6	3157.5	2972.1	2703.0	2163.0	1328.2	525.8	135.0	81.8	70.4
62.5°	4089.2	3777.4	3500.7	3200.3	2847.5	2256.2	1356.7	522.9	117.9	61.8	49.4
65°	4590.3	4029.3	3582.5	3206.0	2790.5	2178.2	1283.5	480.1	99.8	50.4	40.9
67.5°	4710.1	3893.4	3261.1	2781.0	2331.3	1695.2	942.2	361.3	78.0	41.8	36.1
69°	4448.6	3460.8	2702.1	2157.3	1696.2	1124.7	582.8	228.2	59.9	38.0	33.3
70°	4092.1	3010.1	2201.0	1731.3	1256.0	790.1	407.9	160.7	48.5	35.2	30.4
72.5°	2632.7	1581.1	1082.0	753.0	518.2	314.7	159.7	72.3	37.1	29.5	24.7
75°	1021.1	584.7	424.0	322.3	252.0	174.9	97.0	46.6	31.4	24.7	19.0
77.5°	503.0	385.1	314.7	215.8	125.5	78.0	52.3	36.1	25.7	18.1	12.4
80°	397.4	264.3	157.8	97.9	74.2	56.1	39.9	29.5	19.0	11.4	8.6
82.5°	203.5	111.2	81.8	66.6	55.1	43.7	32.3	20.9	12.4	7.6	6.7
85°	63.7	46.6	41.8	40.9	38.0	31.4	22.8	13.3	7.6	4.8	4.8
87.5°	4.8	6.7	8.6	6.7	7.6	6.7	8.6	5.7	3.8	3.8	2.9
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	438.3	438.3	438.3	438.3	438.3	438.3	438.3	438.3	438.3	438.3	438.3
2.5°	399.3	387.9	377.5	370.8	358.4	353.7	348.9	347.0	338.5	340.4	332.8
5°	348.9	329.0	313.8	298.5	284.3	273.8	265.3	254.8	246.2	242.4	234.8
7.5°	303.3	277.6	257.7	241.5	224.4	211.1	199.7	192.1	184.4	176.8	173.0
10°	263.4	235.8	213.0	196.8	180.6	169.2	160.7	155.0	150.2	147.4	146.4
12.5°	226.3	199.7	178.7	164.5	152.1	146.4	142.6	139.8	138.8	137.9	137.9
15°	197.8	171.1	155.0	144.5	138.8	136.0	135.0	133.1	131.2	130.3	130.3
17.5°	171.1	151.2	139.8	134.1	131.2	129.3	127.4	125.5	123.6	122.6	122.6
20°	153.1	136.9	131.2	127.4	124.5	122.6	119.8	117.9	116.9	116.0	115.0
22.5°	138.8	128.4	124.5	121.7	117.9	115.0	113.1	111.2	109.3	108.4	107.4
25°	128.4	121.7	118.8	115.0	111.2	108.4	105.5	102.7	100.8	99.8	97.9
27.5°	120.7	116.0	112.2	107.4	103.6	100.8	97.9	95.1	93.2	91.3	90.3
30°	114.1	109.3	104.6	100.8	96.0	93.2	89.4	86.5	85.6	83.7	81.8
32.5°	107.4	102.7	97.9	93.2	88.4	84.6	82.7	78.9	77.0	76.1	74.2
35°	99.8	95.1	89.4	85.6	80.8	77.0	74.2	71.3	69.4	67.5	66.6
37.5°	93.2	87.5	81.8	77.0	73.2	69.4	66.6	63.7	61.8	59.9	58.9
40°	85.6	79.9	74.2	69.4	65.6	62.8	59.9	57.0	55.1	54.2	54.2
42.5°	78.9	72.3	66.6	62.8	59.9	56.1	53.2	50.4	49.4	48.5	49.4
45°	72.3	65.6	60.8	57.0	54.2	50.4	47.5	45.6	44.7	45.6	46.6
47.5°	66.6	59.9	55.1	52.3	49.4	46.6	43.7	41.8	41.8	43.7	45.6
50°	60.8	54.2	50.4	48.5	45.6	42.8	39.0	38.0	39.0	40.9	42.8
52.5°	55.1	47.5	44.7	43.7	40.9	38.0	35.2	34.2	35.2	37.1	36.1
55°	49.4	41.8	40.9	39.9	37.1	33.3	30.4	30.4	30.4	29.5	27.6
57.5°	47.5	37.1	36.1	35.2	32.3	28.5	26.6	24.7	23.8	20.9	20.0
60°	49.4	33.3	33.3	31.4	28.5	24.7	21.9	19.0	17.1	15.2	15.2
62.5°	39.9	30.4	29.5	27.6	23.8	20.0	17.1	14.3	13.3	12.4	12.4
65°	32.3	27.6	25.7	22.8	20.0	16.2	13.3	11.4	10.5	10.5	11.4
67.5°	29.5	24.7	21.9	19.0	16.2	12.4	10.5	9.5	9.5	10.5	10.5
69°	27.6	22.8	20.0	17.1	14.3	11.4	9.5	9.5	9.5	9.5	10.5
70°	25.7	21.9	19.0	16.2	12.4	9.5	8.6	8.6	9.5	9.5	10.5
72.5°	20.0	17.1	16.2	13.3	9.5	8.6	7.6	8.6	8.6	9.5	9.5
75°	15.2	12.4	12.4	10.5	7.6	6.7	6.7	7.6	7.6	8.6	8.6
77.5°	10.5	8.6	8.6	7.6	6.7	5.7	5.7	6.7	7.6	7.6	8.6
80°	7.6	6.7	5.7	6.7	5.7	4.8	5.7	6.7	6.7	7.6	7.6
82.5°	5.7	5.7	5.7	5.7	4.8	4.8	5.7	5.7	6.7	7.6	7.6
85°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	5.7	5.7	6.7	6.7
87.5°	2.9	2.9	2.9	3.8	3.8	4.8	4.8	4.8	4.8	5.7	5.7
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-E03-LED-E1-SL4-HSS

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	438.3	438.3	438.3	438.3
2.5°	330.9	329.9	326.1	327.1
5°	232.0	226.3	230.1	229.1
7.5°	170.2	169.2	168.3	170.2
10°	145.5	145.5	144.5	145.5
12.5°	136.9	136.9	136.9	136.9
15°	130.3	130.3	129.3	129.3
17.5°	122.6	122.6	122.6	121.7
20°	115.0	114.1	114.1	114.1
22.5°	106.5	105.5	105.5	105.5
25°	97.9	97.0	97.0	97.0
27.5°	89.4	88.4	87.5	87.5
30°	80.8	79.9	78.9	78.9
32.5°	72.3	71.3	70.4	70.4
35°	64.7	64.7	63.7	62.8
37.5°	58.0	58.0	58.0	58.0
40°	53.2	54.2	54.2	54.2
42.5°	50.4	51.3	52.3	53.2
45°	48.5	50.4	51.3	51.3
47.5°	47.5	48.5	49.4	49.4
50°	43.7	42.8	42.8	42.8
52.5°	35.2	33.3	32.3	31.4
55°	25.7	24.7	22.8	22.8
57.5°	18.1	18.1	17.1	17.1
60°	14.3	14.3	13.3	14.3
62.5°	12.4	12.4	12.4	12.4
65°	11.4	11.4	11.4	11.4
67.5°	11.4	11.4	11.4	11.4
69°	10.5	10.5	10.5	10.5
70°	10.5	10.5	10.5	10.5
72.5°	9.5	9.5	9.5	9.5
75°	8.6	9.5	9.5	9.5
77.5°	8.6	8.6	8.6	8.6
80°	7.6	7.6	8.6	8.6
82.5°	7.6	7.6	7.6	7.6
85°	6.7	6.7	7.6	7.6
87.5°	5.7	5.7	6.7	6.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)