

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: P162615

Luminaire Tested: **ECM-E04-LED-E1-SL4-HSS-8030**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P162615  
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-8030  
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, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6531.2 lumens  
Efficiency: N/A  
Efficacy: 67.2 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

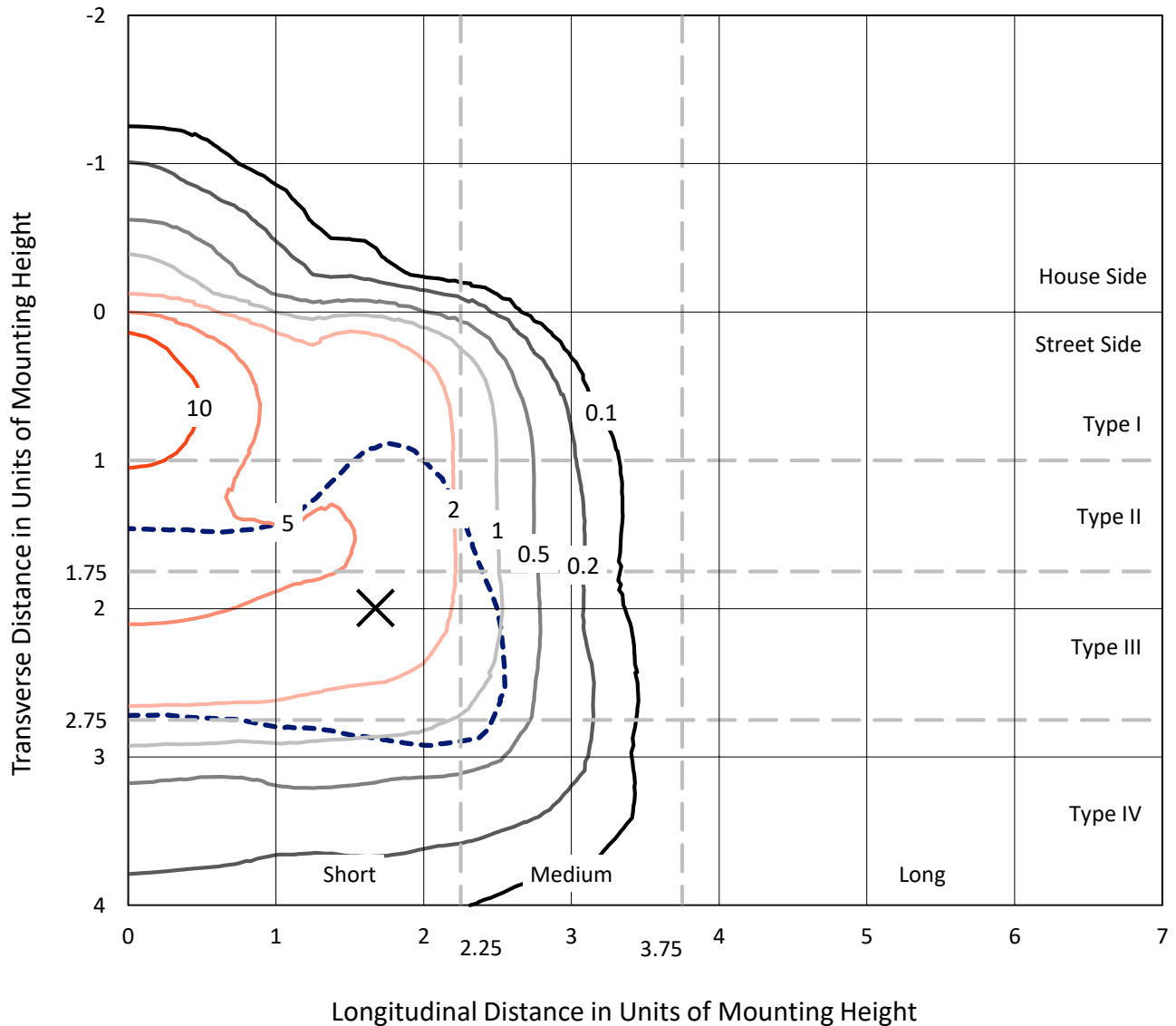
Input Watts (W): 97.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

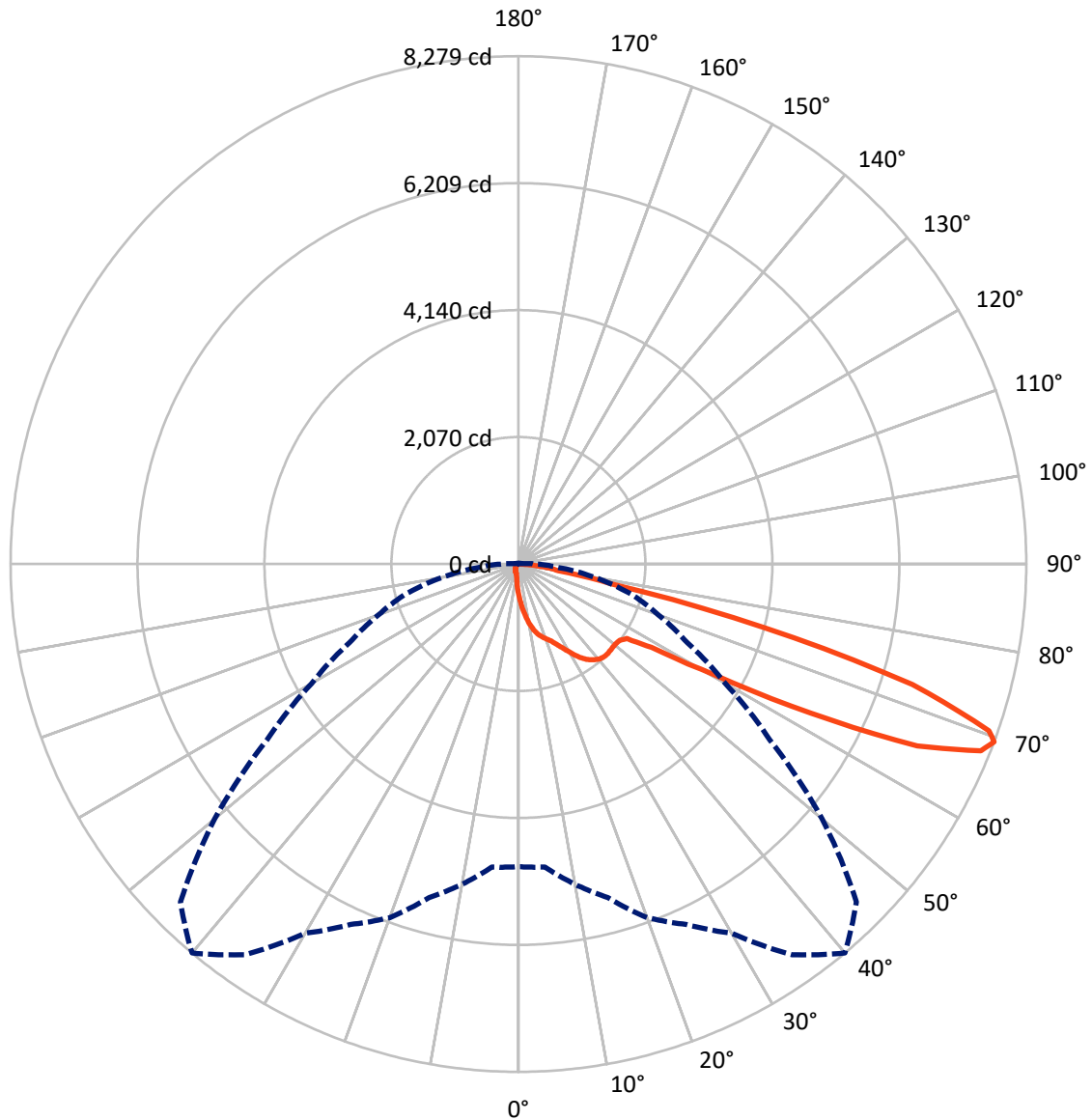
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14.6 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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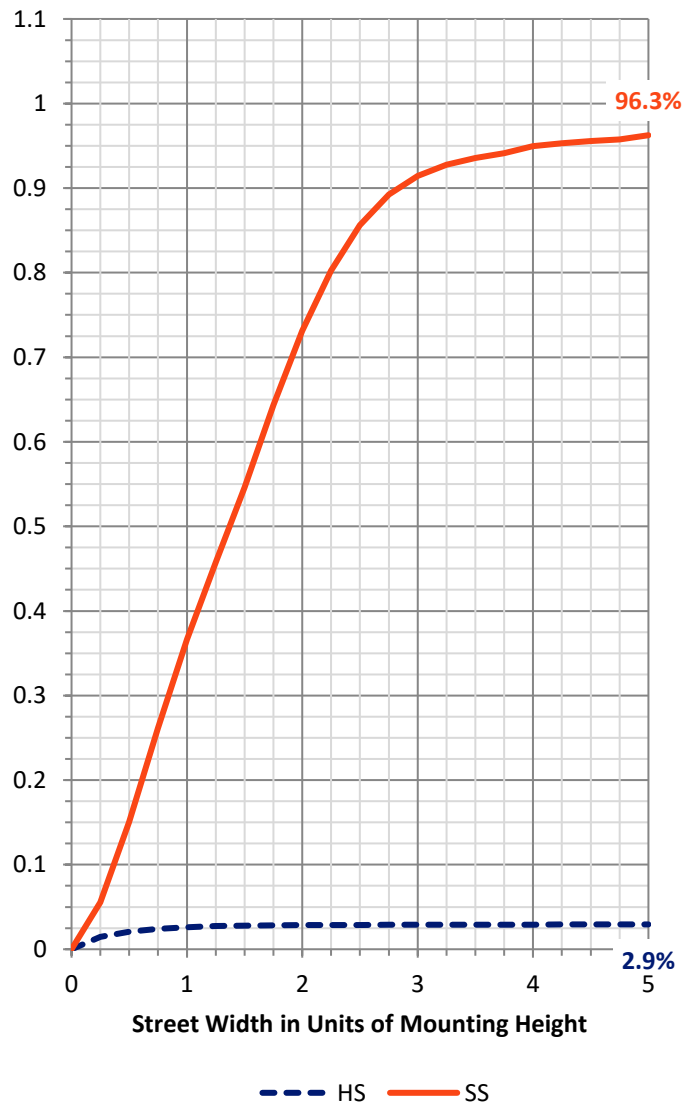
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	194.5	0.0	194.5
	% Fixture	3.0	0.0	3.0
<b>Street Side</b>	Lumens	6336.7	0.0	6336.7
	% Fixture	97.0	0.0	97.0
<b>Total</b>	Lumens	6531.2	0.0	6531.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.7	0.8
10°-20°	174.8	2.7
20°-30°	334.5	5.1
30°-40°	556.4	8.5
40°-50°	752.8	11.5
50°-60°	1177.3	18.0
60°-70°	2420.6	37.1
70°-80°	974.0	14.9
80°-90°	90.1	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°	6531.2	100.0
0°-180°	6531.2	100.0



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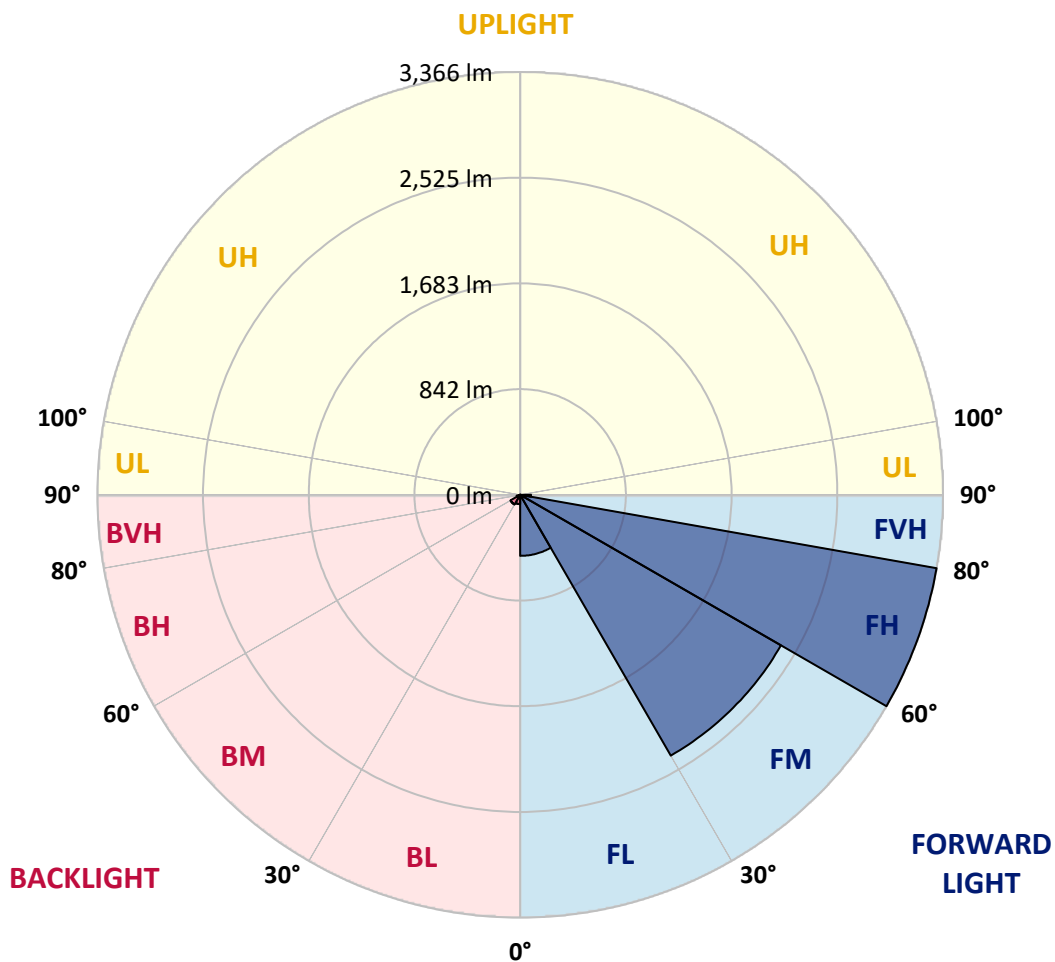
CATALOG NUMBER: ECM-E04-LED-E1-SL4-HSS-8030

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	486.0	7.4			
FM	(30°-60°)	2397.7	36.7			
FH	(60°-80°)	3366.2	51.5			G2/5000
FVH	(80°-90°)	86.7	1.3			G1/100
BL	(0°-30°)	74.0	1.1	B0/110		
BM	(30°-60°)	88.8	1.4	B0/220		
BH	(60°-80°)	28.4	0.4	B0/110		G0/110
BVH	(80°-90°)	3.4	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°	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2
2.5°	658.0	650.5	642.0	642.0	631.2	631.2	624.8	607.7	605.5	596.0	586.3
5°	839.8	833.4	822.7	813.2	804.6	789.6	778.9	758.6	736.1	714.7	695.4
7.5°	1017.5	1014.3	995.0	991.9	977.9	953.3	931.9	901.9	863.5	833.4	798.2
10°	1182.3	1174.7	1170.4	1152.3	1132.0	1105.2	1072.1	1035.6	990.7	943.7	893.4
12.5°	1312.8	1308.5	1289.3	1281.7	1260.4	1233.6	1191.8	1144.8	1099.9	1038.9	980.0
15°	1410.1	1402.6	1389.8	1378.1	1352.4	1328.8	1290.3	1239.0	1184.4	1118.0	1047.4
17.5°	1491.5	1477.5	1474.3	1456.2	1429.4	1401.6	1358.8	1311.7	1247.5	1181.1	1104.2
20°	1600.5	1581.3	1574.9	1548.1	1517.2	1478.7	1429.4	1370.5	1303.1	1230.4	1151.2
22.5°	1728.9	1715.1	1701.1	1677.6	1638.0	1583.4	1511.8	1447.6	1362.0	1281.7	1196.1
25°	1910.9	1899.1	1876.6	1844.5	1795.3	1730.1	1643.4	1549.2	1448.6	1346.0	1245.4
27.5°	2087.4	2076.7	2060.7	2036.0	1980.5	1908.8	1801.8	1681.9	1554.6	1430.5	1319.2
30°	2253.2	2243.6	2227.6	2202.9	2153.8	2083.1	1962.2	1833.8	1675.5	1531.0	1397.3
32.5°	2431.9	2428.7	2410.6	2375.2	2332.5	2237.1	2105.6	1967.5	1807.0	1640.2	1484.0
35°	2634.2	2609.5	2592.4	2557.1	2484.4	2382.6	2228.6	2077.8	1908.8	1737.5	1563.2
37.5°	2805.3	2781.8	2760.4	2715.4	2626.6	2497.2	2322.8	2156.9	1982.6	1808.2	1630.6
40°	2930.4	2918.7	2893.1	2834.2	2734.6	2580.6	2392.3	2211.5	2036.0	1860.6	1685.1
42.5°	3023.5	3005.4	2976.5	2915.5	2797.8	2622.3	2420.1	2234.0	2060.7	1892.7	1720.4
45°	3057.8	3042.9	3016.1	2949.7	2822.4	2634.2	2419.1	2227.6	2061.7	1902.4	1743.9
47.5°	3037.5	3022.5	2999.0	2936.9	2811.7	2620.2	2399.9	2209.3	2051.0	1905.5	1765.4
50°	2970.1	2961.5	2943.3	2891.0	2778.5	2593.4	2382.6	2199.8	2048.9	1921.6	1795.3
52.5°	2963.6	2958.4	2935.9	2883.4	2769.0	2584.9	2380.5	2205.1	2067.1	1941.9	1816.7
55°	3621.6	3545.7	3375.5	3231.1	2993.6	2711.1	2488.6	2291.7	2144.1	2022.1	1934.4
57.5°	5147.3	5033.9	4810.3	4535.4	3989.7	3453.7	3024.6	2714.4	2561.3	2505.8	2538.9
60°	5862.0	5841.7	5806.4	5675.9	5396.6	4935.5	4421.9	3866.6	3644.1	3624.9	3692.3
62.5°	6201.2	6188.4	6199.1	6183.0	6096.3	5961.5	5813.9	5574.3	5353.8	5211.6	4909.8
65°	6357.4	6365.9	6426.9	6475.1	6485.8	6521.1	6629.2	6927.7	7145.9	6778.9	5941.2
67.5°	5960.5	6010.8	6150.9	6326.3	6531.8	6730.8	7051.8	7680.9	8129.2	7698.0	6508.3
69°	4934.4	4959.1	5301.4	5632.0	6133.8	6484.8	6950.1	7775.1	8279.0	7792.2	6463.3
70°	3884.8	3907.3	4274.3	4723.6	5572.1	6023.6	6632.4	7615.6	8138.8	7666.9	6232.3
72.5°	1752.5	1720.4	1849.9	2090.6	3012.8	3729.7	4794.3	6170.1	6714.8	6142.3	4662.7
75°	1224.0	1210.1	1224.0	1225.0	1368.4	1765.4	2227.6	3344.6	4136.2	3569.2	2227.6
77.5°	948.0	938.3	928.7	918.0	935.1	1047.4	1092.3	1186.5	1540.7	1457.2	849.5
80°	750.0	741.5	765.0	757.5	757.5	770.3	761.7	726.5	660.1	611.9	547.8
82.5°	348.7	350.9	350.9	380.9	459.0	536.0	560.6	525.3	466.4	396.9	319.9
85°	33.2	37.5	63.1	97.3	193.7	218.3	219.3	181.9	181.9	143.4	115.6
87.5°	0.0	1.1	1.1	1.1	9.7	26.8	22.5	6.4	3.3	3.3	5.4
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-8030

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2
2.5°	569.2	566.0	553.1	540.3	528.6	515.7	503.9	492.1	479.3	469.7	457.9
5°	665.5	642.0	615.2	589.6	563.9	537.1	509.3	484.7	459.0	435.5	413.0
7.5°	762.9	716.8	680.5	634.5	592.7	551.0	512.5	472.9	436.5	402.3	370.2
10°	845.2	789.6	732.9	674.1	614.1	558.5	505.0	457.9	409.7	368.1	328.5
12.5°	912.6	842.0	772.4	698.6	631.2	560.6	494.4	437.6	380.9	333.8	293.1
15°	973.6	892.3	808.9	723.2	637.7	557.4	483.6	413.0	355.3	301.7	255.7
17.5°	1022.8	929.7	835.6	739.3	647.3	553.1	469.7	395.9	328.5	272.8	227.9
20°	1065.7	968.2	866.6	758.6	653.7	552.1	457.9	374.5	305.0	246.1	202.2
22.5°	1105.2	1007.8	898.7	783.2	663.4	551.0	447.2	358.4	284.6	225.7	181.9
25°	1150.2	1047.4	933.0	808.9	680.5	555.2	440.8	345.6	266.4	206.5	165.9
27.5°	1200.5	1092.3	973.6	841.0	702.9	563.9	438.7	331.6	250.4	188.3	153.0
30°	1271.1	1145.9	1014.3	873.0	723.2	573.5	436.5	323.1	234.3	174.4	140.1
32.5°	1333.1	1198.4	1059.3	906.2	745.8	583.1	435.5	311.4	219.3	160.5	130.5
35°	1398.3	1246.4	1097.8	938.3	765.0	593.8	434.4	302.8	205.4	146.6	120.9
37.5°	1455.0	1287.1	1127.7	966.1	786.4	603.4	435.5	295.3	192.5	134.8	112.3
40°	1503.2	1328.8	1160.9	991.9	808.9	618.4	436.5	287.9	179.7	124.1	104.9
42.5°	1546.0	1368.4	1196.1	1020.7	834.5	635.6	442.9	281.3	169.0	114.4	97.3
45°	1579.2	1404.7	1234.7	1061.4	876.3	663.4	454.7	277.1	158.3	105.9	90.9
47.5°	1613.4	1458.3	1300.0	1125.5	937.3	707.3	475.0	276.0	149.8	99.5	85.6
50°	1660.5	1511.8	1357.7	1190.8	992.9	752.2	499.6	277.1	139.1	93.1	80.2
52.5°	1694.7	1566.3	1432.6	1304.2	1125.5	889.1	594.8	296.4	133.7	87.8	73.8
55°	1897.0	1874.4	1877.7	1899.1	1761.1	1512.9	995.0	428.0	157.3	99.5	72.8
57.5°	2674.8	2754.0	2799.9	2798.9	2571.0	2132.4	1336.3	549.9	175.4	115.6	86.6
60°	3697.6	3637.7	3553.2	3344.6	3041.7	2434.1	1494.7	591.7	151.9	92.1	79.2
62.5°	4601.7	4250.8	3939.4	3601.4	3204.4	2538.9	1526.7	588.4	132.7	69.5	55.6
65°	5165.6	4534.3	4031.5	3607.8	3140.2	2451.2	1444.3	540.3	112.3	56.7	46.0
67.5°	5300.4	4381.3	3669.8	3129.5	2623.5	1907.6	1060.3	406.6	87.8	47.0	40.6
69°	5006.1	3894.5	3040.7	2427.7	1908.8	1265.6	655.8	256.8	67.4	42.8	37.5
70°	4604.9	3387.3	2476.8	1948.3	1413.4	889.1	459.0	180.8	54.6	39.6	34.2
72.5°	2962.6	1779.2	1217.6	847.4	583.1	354.1	179.7	81.4	41.7	33.2	27.8
75°	1149.1	658.0	477.1	362.7	283.6	196.8	109.2	52.4	35.3	27.8	21.4
77.5°	566.0	433.4	354.1	242.8	141.2	87.8	58.9	40.6	28.9	20.4	14.0
80°	447.2	297.4	177.6	110.2	83.5	63.1	44.9	33.2	21.4	12.8	9.7
82.5°	229.0	125.1	92.1	74.9	62.0	49.2	36.3	23.5	14.0	8.6	7.5
85°	71.7	52.4	47.0	46.0	42.8	35.3	25.7	15.0	8.6	5.4	5.4
87.5°	5.4	7.5	9.7	7.5	8.6	7.5	9.7	6.4	4.3	4.3	3.3
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):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2
2.5°	449.3	436.5	424.8	417.3	403.3	398.0	392.6	390.5	380.9	383.1	374.5
5°	392.6	370.2	353.1	335.9	319.9	308.1	298.5	286.7	277.1	272.8	264.2
7.5°	341.3	312.4	290.0	271.8	252.5	237.6	224.7	216.2	207.5	199.0	194.7
10°	296.4	265.4	239.7	221.5	203.2	190.4	180.8	174.4	169.0	165.9	164.7
12.5°	254.7	224.7	201.1	185.1	171.2	164.7	160.5	157.3	156.2	155.2	155.2
15°	222.6	192.5	174.4	162.6	156.2	153.0	151.9	149.8	147.6	146.6	146.6
17.5°	192.5	170.1	157.3	150.9	147.6	145.5	143.4	141.2	139.1	138.0	138.0
20°	172.3	154.1	147.6	143.4	140.1	138.0	134.8	132.7	131.6	130.5	129.4
22.5°	156.2	144.5	140.1	137.0	132.7	129.4	127.3	125.1	123.0	122.0	120.9
25°	144.5	137.0	133.7	129.4	125.1	122.0	118.7	115.6	113.4	112.3	110.2
27.5°	135.8	130.5	126.3	120.9	116.6	113.4	110.2	107.0	104.9	102.7	101.6
30°	128.4	123.0	117.7	113.4	108.0	104.9	100.6	97.3	96.3	94.2	92.1
32.5°	120.9	115.6	110.2	104.9	99.5	95.2	93.1	88.8	86.6	85.6	83.5
35°	112.3	107.0	100.6	96.3	90.9	86.6	83.5	80.2	78.1	76.0	74.9
37.5°	104.9	98.5	92.1	86.6	82.4	78.1	74.9	71.7	69.5	67.4	66.3
40°	96.3	89.9	83.5	78.1	73.8	70.7	67.4	64.1	62.0	61.0	61.0
42.5°	88.8	81.4	74.9	70.7	67.4	63.1	59.9	56.7	55.6	54.6	55.6
45°	81.4	73.8	68.4	64.1	61.0	56.7	53.5	51.3	50.3	51.3	52.4
47.5°	74.9	67.4	62.0	58.9	55.6	52.4	49.2	47.0	47.0	49.2	51.3
50°	68.4	61.0	56.7	54.6	51.3	48.2	43.9	42.8	43.9	46.0	48.2
52.5°	62.0	53.5	50.3	49.2	46.0	42.8	39.6	38.5	39.6	41.7	40.6
55°	55.6	47.0	46.0	44.9	41.7	37.5	34.2	34.2	34.2	33.2	31.1
57.5°	53.5	41.7	40.6	39.6	36.3	32.1	29.9	27.8	26.8	23.5	22.5
60°	55.6	37.5	37.5	35.3	32.1	27.8	24.6	21.4	19.2	17.1	17.1
62.5°	44.9	34.2	33.2	31.1	26.8	22.5	19.2	16.1	15.0	14.0	14.0
65°	36.3	31.1	28.9	25.7	22.5	18.2	15.0	12.8	11.8	11.8	12.8
67.5°	33.2	27.8	24.6	21.4	18.2	14.0	11.8	10.7	10.7	11.8	11.8
69°	31.1	25.7	22.5	19.2	16.1	12.8	10.7	10.7	10.7	10.7	11.8
70°	28.9	24.6	21.4	18.2	14.0	10.7	9.7	9.7	10.7	10.7	11.8
72.5°	22.5	19.2	18.2	15.0	10.7	9.7	8.6	9.7	9.7	10.7	10.7
75°	17.1	14.0	14.0	11.8	8.6	7.5	7.5	8.6	8.6	9.7	9.7
77.5°	11.8	9.7	9.7	8.6	7.5	6.4	6.4	7.5	8.6	8.6	9.7
80°	8.6	7.5	6.4	7.5	6.4	5.4	6.4	7.5	7.5	8.6	8.6
82.5°	6.4	6.4	6.4	6.4	5.4	5.4	6.4	6.4	7.5	8.6	8.6
85°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	6.4	6.4	7.5	7.5
87.5°	3.3	3.3	3.3	4.3	4.3	5.4	5.4	5.4	5.4	6.4	6.4
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):**

	165°	170°	175°	180°
0°	493.2	493.2	493.2	493.2
2.5°	372.4	371.2	367.0	368.1
5°	261.1	254.7	258.9	257.8
7.5°	191.5	190.4	189.4	191.5
10°	163.7	163.7	162.6	163.7
12.5°	154.1	154.1	154.1	154.1
15°	146.6	146.6	145.5	145.5
17.5°	138.0	138.0	138.0	137.0
20°	129.4	128.4	128.4	128.4
22.5°	119.8	118.7	118.7	118.7
25°	110.2	109.2	109.2	109.2
27.5°	100.6	99.5	98.5	98.5
30°	90.9	89.9	88.8	88.8
32.5°	81.4	80.2	79.2	79.2
35°	72.8	72.8	71.7	70.7
37.5°	65.3	65.3	65.3	65.3
40°	59.9	61.0	61.0	61.0
42.5°	56.7	57.7	58.9	59.9
45°	54.6	56.7	57.7	57.7
47.5°	53.5	54.6	55.6	55.6
50°	49.2	48.2	48.2	48.2
52.5°	39.6	37.5	36.3	35.3
55°	28.9	27.8	25.7	25.7
57.5°	20.4	20.4	19.2	19.2
60°	16.1	16.1	15.0	16.1
62.5°	14.0	14.0	14.0	14.0
65°	12.8	12.8	12.8	12.8
67.5°	12.8	12.8	12.8	12.8
69°	11.8	11.8	11.8	11.8
70°	11.8	11.8	11.8	11.8
72.5°	10.7	10.7	10.7	10.7
75°	9.7	10.7	10.7	10.7
77.5°	9.7	9.7	9.7	9.7
80°	8.6	8.6	9.7	9.7
82.5°	8.6	8.6	8.6	8.6
85°	7.5	7.5	8.6	8.6
87.5°	6.4	6.4	7.5	7.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)