

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: P162608

Luminaire Tested: **ECM-E03-LED-E1-SL4-HSS-7050**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P162608
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-7050
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) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5955.4 lumens
Efficiency: N/A
Efficacy: 79.2 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

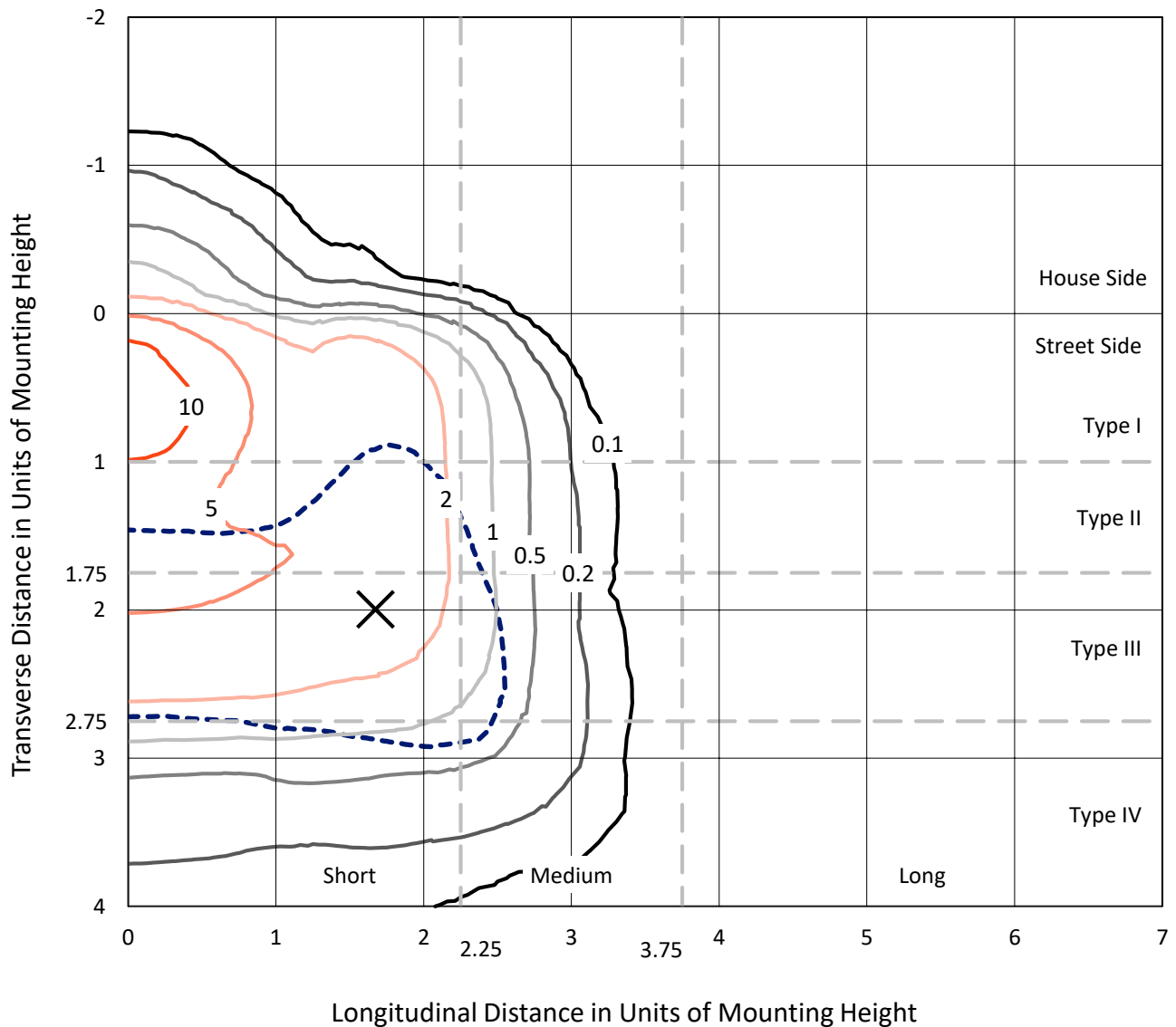
Input Watts (W): 75.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

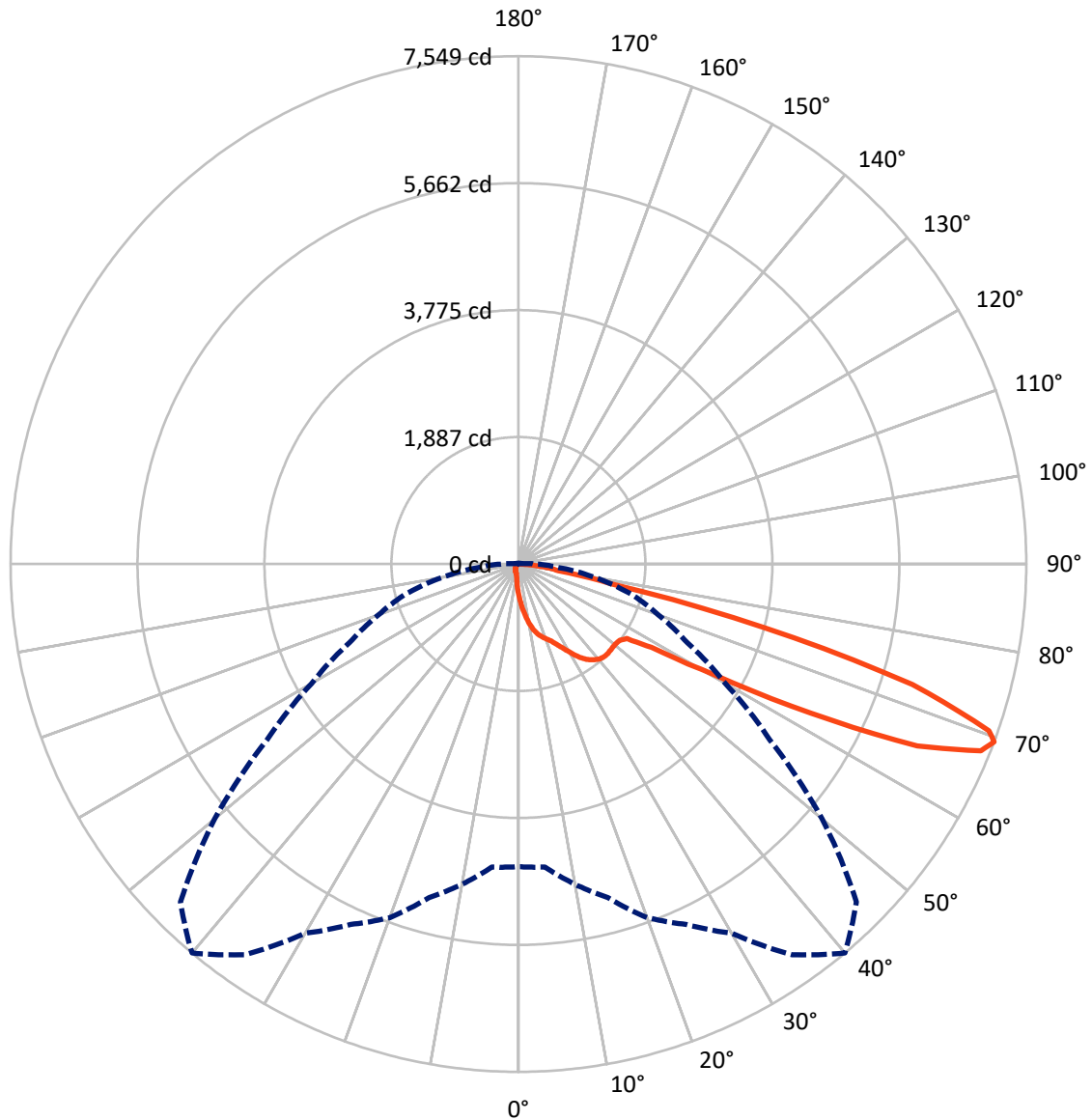
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 13.3 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	177.3	0.0	177.3
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	5778.0	0.0	5778.0
	% Fixture	97.0	0.0	97.0
Total	Lumens	5955.4	0.0	5955.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.2	0.8
10°-20°	159.4	2.7
20°-30°	305.0	5.1
30°-40°	507.3	8.5
40°-50°	686.4	11.5
50°-60°	1073.5	18.0
60°-70°	2207.2	37.1
70°-80°	888.1	14.9
80°-90°	82.2	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°	5955.4	100.0
0°-180°	5955.4	100.0



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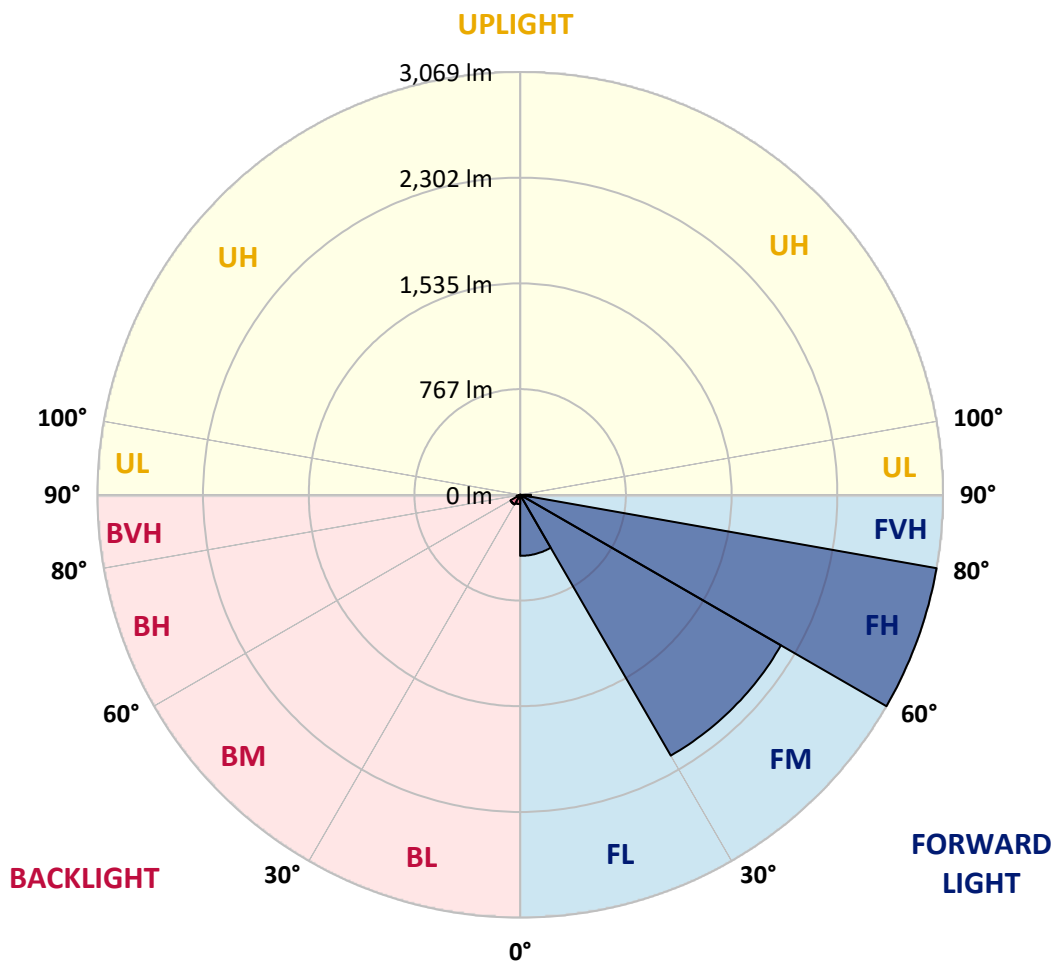
CATALOG NUMBER: ECM-E03-LED-E1-SL4-HSS-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	443.2	7.4			
FM	(30°-60°)	2186.3	36.7			
FH	(60°-80°)	3069.4	51.5			G2/5000
FVH	(80°-90°)	79.1	1.3			G1/100
BL	(0°-30°)	67.5	1.1	B0/110		
BM	(30°-60°)	81.0	1.4	B0/220		
BH	(60°-80°)	25.9	0.4	B0/110		G0/110
BVH	(80°-90°)	3.1	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°	449.7	449.7	449.7	449.7	449.7	449.7	449.7	449.7	449.7	449.7	449.7
2.5°	600.0	593.2	585.4	585.4	575.5	575.5	569.7	554.1	552.1	543.4	534.6
5°	765.8	759.9	750.2	741.5	733.7	720.0	710.3	691.7	671.2	651.7	634.1
7.5°	927.8	924.8	907.3	904.4	891.7	869.2	849.7	822.4	787.3	759.9	727.8
10°	1078.0	1071.2	1067.3	1050.7	1032.2	1007.7	977.6	944.3	903.4	860.5	814.6
12.5°	1197.1	1193.2	1175.6	1168.7	1149.2	1124.8	1086.7	1043.9	1002.9	947.3	893.6
15°	1285.8	1278.9	1267.2	1256.6	1233.2	1211.6	1176.5	1129.7	1080.0	1019.4	955.1
17.5°	1360.0	1347.3	1344.3	1327.8	1303.4	1278.0	1239.0	1196.0	1137.5	1077.0	1006.8
20°	1459.4	1441.9	1436.0	1411.6	1383.4	1348.3	1303.4	1249.7	1188.2	1121.9	1049.7
22.5°	1576.5	1563.9	1551.2	1529.7	1493.6	1443.8	1378.5	1320.0	1241.9	1168.7	1090.6
25°	1742.4	1731.7	1711.1	1681.9	1637.0	1577.5	1498.5	1412.6	1320.9	1227.3	1135.6
27.5°	1903.3	1893.6	1879.0	1856.5	1805.8	1740.5	1642.9	1533.6	1417.6	1304.4	1202.9
30°	2054.6	2045.7	2031.2	2008.7	1963.9	1899.4	1789.2	1672.1	1527.8	1396.0	1274.1
32.5°	2217.5	2214.5	2198.0	2165.8	2126.8	2039.9	1919.9	1794.0	1647.7	1495.5	1353.1
35°	2401.9	2379.4	2363.8	2331.6	2265.3	2172.6	2032.1	1894.6	1740.5	1584.3	1425.4
37.5°	2558.0	2536.5	2517.0	2476.0	2395.0	2277.0	2118.0	1966.7	1807.8	1648.7	1486.8
40°	2672.1	2661.4	2638.0	2584.3	2493.5	2353.1	2181.4	2016.5	1856.5	1696.6	1536.5
42.5°	2756.9	2740.4	2714.0	2658.4	2551.1	2391.1	2206.7	2037.0	1879.0	1725.8	1568.7
45°	2788.2	2774.6	2750.2	2689.6	2573.6	2401.9	2205.8	2031.2	1879.9	1734.6	1590.2
47.5°	2769.7	2756.0	2734.6	2677.9	2563.8	2389.2	2188.3	2014.6	1870.2	1737.5	1609.8
50°	2708.2	2700.4	2683.8	2636.1	2533.6	2364.8	2172.6	2005.8	1868.2	1752.2	1637.0
52.5°	2702.4	2697.5	2677.0	2629.2	2524.8	2357.0	2170.6	2010.7	1884.9	1770.6	1656.5
55°	3302.3	3233.1	3077.9	2946.3	2729.6	2472.1	2269.2	2089.7	1955.0	1843.8	1763.9
57.5°	4693.5	4590.1	4386.2	4135.5	3638.0	3149.2	2758.0	2475.1	2335.5	2284.8	2315.1
60°	5345.2	5326.6	5294.5	5175.5	4920.8	4500.4	4032.1	3525.7	3322.8	3305.3	3366.8
62.5°	5654.5	5642.8	5652.5	5637.8	5558.8	5435.9	5301.3	5082.8	4881.8	4752.1	4476.9
65°	5796.9	5804.7	5860.3	5904.2	5914.0	5946.2	6044.7	6316.9	6515.9	6181.3	5417.4
67.5°	5435.0	5480.8	5608.6	5768.6	5955.9	6137.3	6430.1	7003.7	7412.5	7019.3	5934.5
69°	4499.4	4521.8	4834.0	5135.5	5593.0	5913.0	6337.3	7089.6	7549.1	7105.2	5893.4
70°	3542.3	3562.8	3897.5	4307.2	5080.9	5492.5	6047.7	6944.2	7421.2	6991.0	5682.8
72.5°	1598.0	1568.7	1686.8	1906.3	2747.2	3400.8	4371.6	5626.1	6122.8	5600.8	4251.6
75°	1116.1	1103.4	1116.1	1117.0	1247.7	1609.8	2031.2	3049.7	3771.6	3254.5	2031.2
77.5°	864.4	855.6	846.8	837.1	852.7	955.1	996.0	1081.9	1404.8	1328.7	774.6
80°	683.9	676.1	697.5	690.7	690.7	702.4	694.6	662.5	601.9	558.0	499.5
82.5°	318.0	319.9	319.9	347.3	418.5	488.7	511.2	479.0	425.3	361.9	291.7
85°	30.3	34.2	57.6	88.8	176.6	199.1	200.0	165.8	165.8	130.7	105.4
87.5°	0.0	1.0	1.0	1.0	8.8	24.4	20.5	5.8	3.0	3.0	4.9
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	449.7	449.7	449.7	449.7	449.7	449.7	449.7	449.7	449.7	449.7	449.7
2.5°	519.0	516.1	504.3	492.6	482.0	470.3	459.5	448.7	437.0	428.3	417.5
5°	606.8	585.4	561.0	537.6	514.2	489.8	464.4	441.9	418.5	397.1	376.6
7.5°	695.6	653.6	620.5	578.5	540.4	502.4	467.3	431.2	398.0	366.8	337.6
10°	770.7	720.0	668.3	614.6	559.9	509.3	460.5	417.5	373.6	335.6	299.5
12.5°	832.2	767.7	704.3	637.0	575.5	511.2	450.8	399.1	347.3	304.3	267.3
15°	887.8	813.6	737.6	659.5	581.5	508.2	440.9	376.6	323.9	275.1	233.1
17.5°	932.6	847.8	761.9	674.2	590.2	504.3	428.3	361.0	299.5	248.7	207.8
20°	971.7	882.9	790.2	691.7	596.1	503.4	417.5	341.5	278.1	224.4	184.4
22.5°	1007.7	919.0	819.4	714.2	604.9	502.4	407.8	326.8	259.5	205.8	165.8
25°	1048.8	955.1	850.7	737.6	620.5	506.3	401.9	315.1	242.9	188.3	151.2
27.5°	1094.6	996.0	887.8	766.8	640.9	514.2	400.0	302.4	228.3	171.7	139.6
30°	1159.0	1044.9	924.8	796.1	659.5	522.9	398.0	294.6	213.6	159.0	127.8
32.5°	1215.5	1092.7	965.9	826.3	680.0	531.7	397.1	283.9	200.0	146.3	119.0
35°	1275.0	1136.5	1001.0	855.6	697.5	541.5	396.1	276.1	187.3	133.7	110.2
37.5°	1326.8	1173.7	1028.3	880.9	717.0	550.2	397.1	269.3	175.6	122.9	102.4
40°	1370.7	1211.6	1058.5	904.4	737.6	563.8	398.0	262.5	163.9	113.2	95.6
42.5°	1409.7	1247.7	1090.6	930.7	761.0	579.5	403.9	256.5	154.1	104.4	88.8
45°	1439.9	1280.9	1125.8	967.8	799.0	604.9	414.6	252.6	144.4	96.6	82.9
47.5°	1471.1	1329.7	1185.4	1026.3	854.6	644.9	433.1	251.7	136.6	90.7	78.1
50°	1514.1	1378.5	1238.0	1085.8	905.3	685.8	455.6	252.6	126.8	84.9	73.2
52.5°	1545.3	1428.2	1306.3	1189.3	1026.3	810.7	542.4	270.3	121.9	80.0	67.3
55°	1729.7	1709.2	1712.2	1731.7	1605.9	1379.5	907.3	390.2	143.4	90.7	66.4
57.5°	2439.0	2511.2	2553.1	2552.1	2344.3	1944.4	1218.5	501.5	160.0	105.4	79.0
60°	3371.6	3317.0	3239.9	3049.7	2773.6	2219.5	1362.9	539.5	138.5	83.9	72.2
62.5°	4196.0	3876.0	3592.1	3283.8	2921.8	2315.1	1392.1	536.6	121.0	63.4	50.7
65°	4710.1	4134.5	3676.0	3289.7	2863.3	2235.1	1317.0	492.6	102.4	51.7	42.0
67.5°	4833.1	3995.0	3346.2	2853.6	2392.2	1739.5	966.8	370.7	80.0	42.9	37.0
69°	4564.7	3551.1	2772.6	2213.6	1740.5	1154.1	598.0	234.2	61.5	39.0	34.2
70°	4198.9	3088.7	2258.5	1776.5	1288.8	810.7	418.5	164.9	49.8	36.1	31.2
72.5°	2701.4	1622.4	1110.2	772.7	531.7	322.9	163.9	74.2	38.1	30.3	25.3
75°	1047.8	600.0	435.1	330.7	258.6	179.5	99.5	47.8	32.2	25.3	19.5
77.5°	516.1	395.2	322.9	221.4	128.8	80.0	53.7	37.0	26.4	18.6	12.7
80°	407.8	271.2	161.9	100.5	76.1	57.6	40.9	30.3	19.5	11.7	8.8
82.5°	208.8	114.1	83.9	68.3	56.5	44.8	33.1	21.4	12.7	7.8	6.9
85°	65.4	47.8	42.9	42.0	39.0	32.2	23.4	13.6	7.8	4.9	4.9
87.5°	4.9	6.9	8.8	6.9	7.8	6.9	8.8	5.8	3.9	3.9	3.0
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°	449.7	449.7	449.7	449.7	449.7	449.7	449.7	449.7	449.7	449.7	449.7
2.5°	409.7	398.0	387.4	380.5	367.8	362.9	358.0	356.1	347.3	349.3	341.5
5°	358.0	337.6	322.0	306.3	291.7	280.9	272.2	261.5	252.6	248.7	240.9
7.5°	311.2	284.8	264.4	247.8	230.3	216.6	204.9	197.1	189.2	181.4	177.5
10°	270.3	242.0	218.6	201.9	185.3	173.6	164.9	159.0	154.1	151.2	150.2
12.5°	232.2	204.9	183.4	168.8	156.1	150.2	146.3	143.4	142.4	141.5	141.5
15°	203.0	175.6	159.0	148.3	142.4	139.6	138.5	136.6	134.6	133.7	133.7
17.5°	175.6	155.1	143.4	137.6	134.6	132.7	130.7	128.8	126.8	125.8	125.8
20°	157.1	140.5	134.6	130.7	127.8	125.8	122.9	121.0	120.0	119.0	118.0
22.5°	142.4	131.8	127.8	124.9	121.0	118.0	116.1	114.1	112.2	111.2	110.2
25°	131.8	124.9	121.9	118.0	114.1	111.2	108.3	105.4	103.4	102.4	100.5
27.5°	123.9	119.0	115.1	110.2	106.3	103.4	100.5	97.6	95.6	93.7	92.7
30°	117.1	112.2	107.3	103.4	98.5	95.6	91.7	88.8	87.8	85.9	83.9
32.5°	110.2	105.4	100.5	95.6	90.7	86.8	84.9	81.0	79.0	78.1	76.1
35°	102.4	97.6	91.7	87.8	82.9	79.0	76.1	73.2	71.2	69.3	68.3
37.5°	95.6	89.8	83.9	79.0	75.1	71.2	68.3	65.4	63.4	61.5	60.4
40°	87.8	82.0	76.1	71.2	67.3	64.4	61.5	58.5	56.5	55.6	55.6
42.5°	81.0	74.2	68.3	64.4	61.5	57.6	54.6	51.7	50.7	49.8	50.7
45°	74.2	67.3	62.4	58.5	55.6	51.7	48.7	46.8	45.9	46.8	47.8
47.5°	68.3	61.5	56.5	53.7	50.7	47.8	44.8	42.9	42.9	44.8	46.8
50°	62.4	55.6	51.7	49.8	46.8	43.9	40.0	39.0	40.0	42.0	43.9
52.5°	56.5	48.7	45.9	44.8	42.0	39.0	36.1	35.1	36.1	38.1	37.0
55°	50.7	42.9	42.0	40.9	38.1	34.2	31.2	31.2	31.2	30.3	28.3
57.5°	48.7	38.1	37.0	36.1	33.1	29.2	27.3	25.3	24.4	21.4	20.5
60°	50.7	34.2	34.2	32.2	29.2	25.3	22.5	19.5	17.5	15.6	15.6
62.5°	40.9	31.2	30.3	28.3	24.4	20.5	17.5	14.7	13.6	12.7	12.7
65°	33.1	28.3	26.4	23.4	20.5	16.6	13.6	11.7	10.8	10.8	11.7
67.5°	30.3	25.3	22.5	19.5	16.6	12.7	10.8	9.7	9.7	10.8	10.8
69°	28.3	23.4	20.5	17.5	14.7	11.7	9.7	9.7	9.7	9.7	10.8
70°	26.4	22.5	19.5	16.6	12.7	9.7	8.8	8.8	9.7	9.7	10.8
72.5°	20.5	17.5	16.6	13.6	9.7	8.8	7.8	8.8	8.8	9.7	9.7
75°	15.6	12.7	12.7	10.8	7.8	6.9	6.9	7.8	7.8	8.8	8.8
77.5°	10.8	8.8	8.8	7.8	6.9	5.8	5.8	6.9	7.8	7.8	8.8
80°	7.8	6.9	5.8	6.9	5.8	4.9	5.8	6.9	6.9	7.8	7.8
82.5°	5.8	5.8	5.8	5.8	4.9	4.9	5.8	5.8	6.9	7.8	7.8
85°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	5.8	5.8	6.9	6.9
87.5°	3.0	3.0	3.0	3.9	3.9	4.9	4.9	4.9	4.9	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-E03-LED-E1-SL4-HSS-7050

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	449.7	449.7	449.7	449.7
2.5°	339.5	338.5	334.6	335.6
5°	238.1	232.2	236.1	235.1
7.5°	174.6	173.6	172.7	174.6
10°	149.3	149.3	148.3	149.3
12.5°	140.5	140.5	140.5	140.5
15°	133.7	133.7	132.7	132.7
17.5°	125.8	125.8	125.8	124.9
20°	118.0	117.1	117.1	117.1
22.5°	109.3	108.3	108.3	108.3
25°	100.5	99.5	99.5	99.5
27.5°	91.7	90.7	89.8	89.8
30°	82.9	82.0	81.0	81.0
32.5°	74.2	73.2	72.2	72.2
35°	66.4	66.4	65.4	64.4
37.5°	59.5	59.5	59.5	59.5
40°	54.6	55.6	55.6	55.6
42.5°	51.7	52.6	53.7	54.6
45°	49.8	51.7	52.6	52.6
47.5°	48.7	49.8	50.7	50.7
50°	44.8	43.9	43.9	43.9
52.5°	36.1	34.2	33.1	32.2
55°	26.4	25.3	23.4	23.4
57.5°	18.6	18.6	17.5	17.5
60°	14.7	14.7	13.6	14.7
62.5°	12.7	12.7	12.7	12.7
65°	11.7	11.7	11.7	11.7
67.5°	11.7	11.7	11.7	11.7
69°	10.8	10.8	10.8	10.8
70°	10.8	10.8	10.8	10.8
72.5°	9.7	9.7	9.7	9.7
75°	8.8	9.7	9.7	9.7
77.5°	8.8	8.8	8.8	8.8
80°	7.8	7.8	8.8	8.8
82.5°	7.8	7.8	7.8	7.8
85°	6.9	6.9	7.8	7.8
87.5°	5.8	5.8	6.9	6.9
90°	0.0	0.0	0.0	0.0

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