

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: P141708

Luminaire Tested: **ECM-E02-LED-E1-T2-8030**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P141708  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33682)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ECM-E02-LED-E1-T2-8030  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 2  
Light Source: (42) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4976.3 lumens  
Efficiency: N/A  
Efficacy: 95.5 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G2

Input Watts (W): 52.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

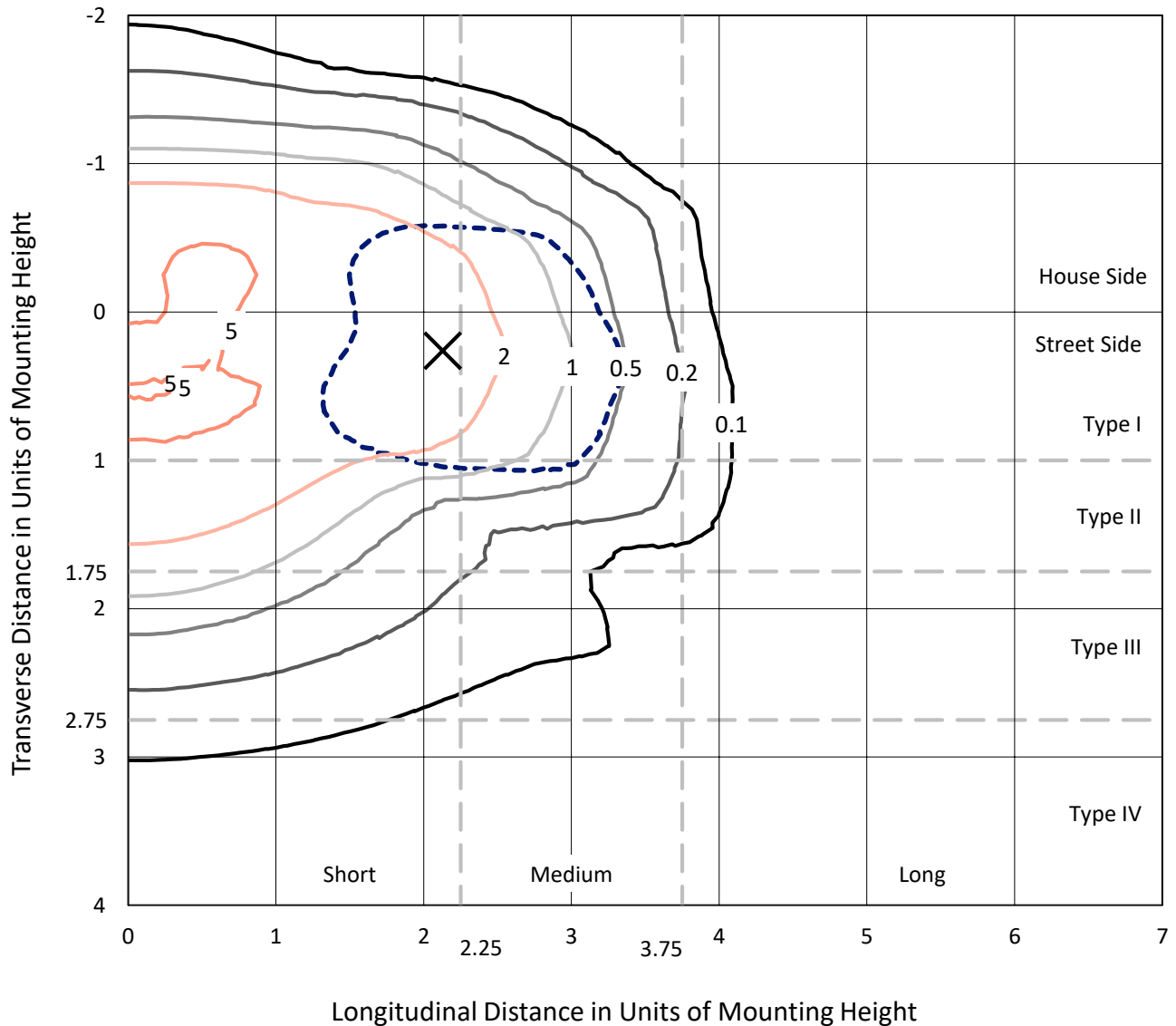


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### Iso-Footcandle Lines of Horizontal Illumination

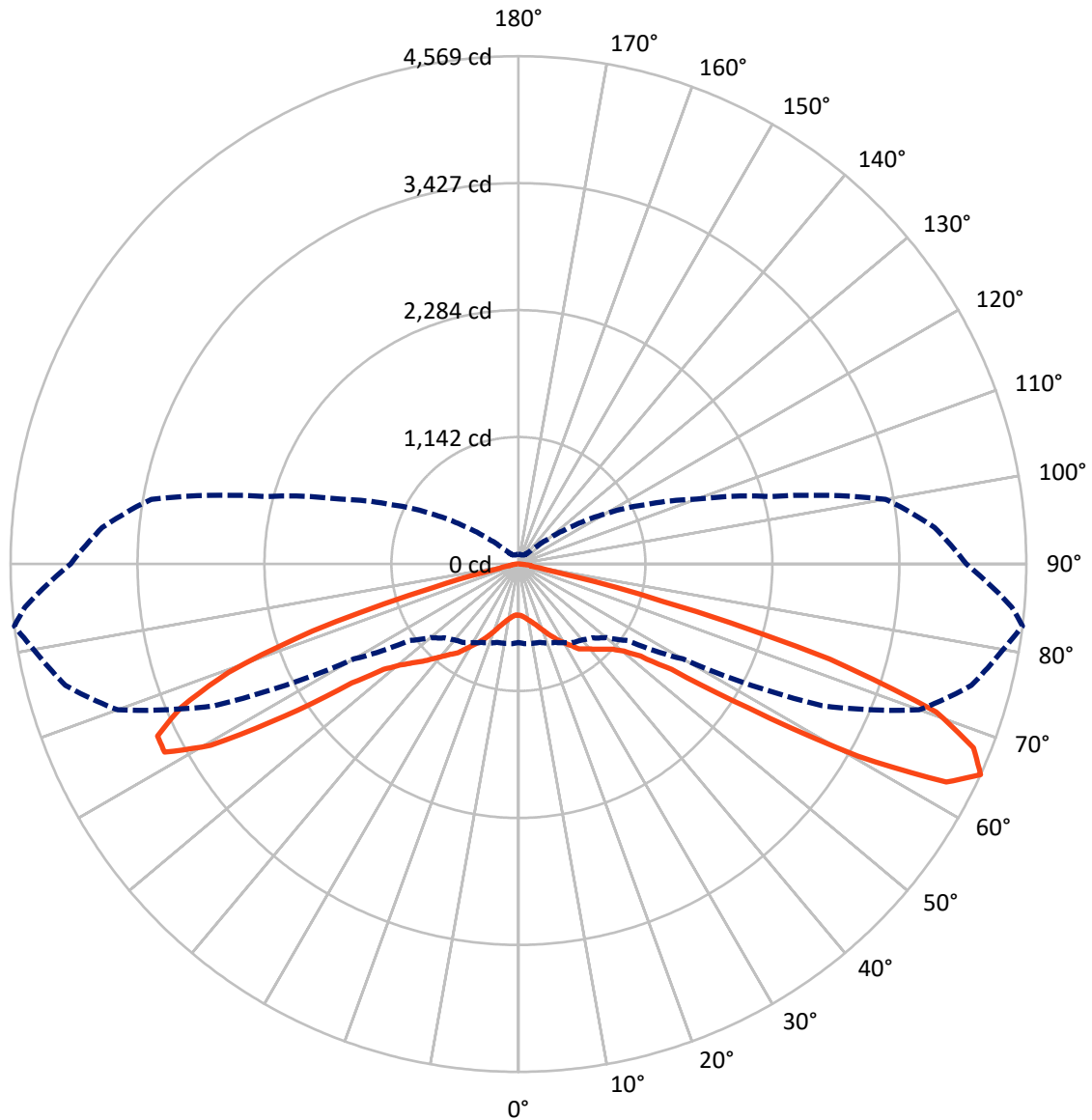
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.8 fc  
 Type II - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 83-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1845.9	0.0	1845.9
	% Fixture	37.1	0.0	37.1
<b>Street Side</b>	Lumens	3130.4	0.0	3130.4
	% Fixture	62.9	0.0	62.9
<b>Total</b>	Lumens	4976.3	0.0	4976.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.4	0.9
10°-20°	162.4	3.3
20°-30°	320.9	6.4
30°-40°	552.3	11.1
40°-50°	833.2	16.7
50°-60°	1159.4	23.3
60°-70°	1338.2	26.9
70°-80°	486.3	9.8
80°-90°	77.2	1.6
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°	4976.3	100.0
0°-180°	4976.3	100.0



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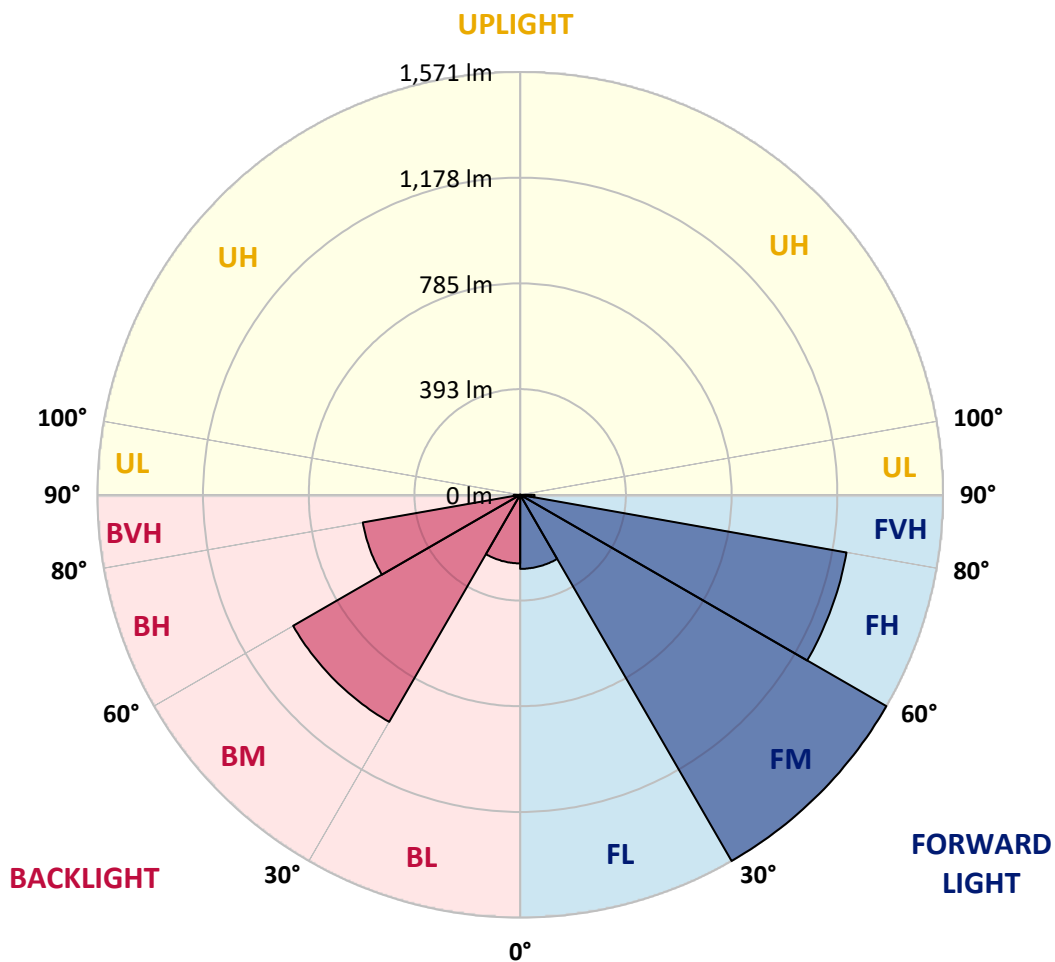
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	275.1	5.5			
FM (30°-60°)	1570.9	31.6			
FH (60°-80°)	1231.1	24.7			G1/1800
FVH (80°-90°)	53.3	1.1			G1/100
BL (0°-30°)	254.6	5.1	B1/500		
BM (30°-60°)	973.9	19.6	B1/1000		
BH (60°-80°)	593.5	11.9	B2/1000		G2/1000
BVH (80°-90°)	23.9	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	460.8	460.8	460.8	460.8	460.8	460.8	460.8	460.8	460.8	460.8	460.8
2.5°	483.3	484.5	483.3	483.3	482.8	482.2	482.2	481.6	480.5	479.4	478.8
5°	509.8	510.3	508.6	508.6	509.2	508.6	507.0	507.5	503.0	501.3	500.2
7.5°	539.0	540.7	538.5	537.3	536.8	535.7	534.0	531.2	527.8	525.0	523.3
10°	572.2	573.9	572.8	570.5	567.2	565.5	563.8	559.3	555.3	550.8	547.5
12.5°	611.6	612.2	611.0	606.5	604.3	599.2	593.6	588.5	582.9	576.2	570.5
15°	650.4	651.0	649.3	644.8	642.0	635.8	627.9	621.2	611.6	603.7	596.4
17.5°	680.3	681.4	678.0	674.6	670.7	662.8	655.5	647.6	637.5	629.1	621.7
20°	690.4	692.1	689.8	688.1	685.9	681.9	674.6	667.9	658.9	652.7	647.1
22.5°	685.9	687.6	686.4	686.4	686.4	685.9	682.5	680.8	675.2	672.4	671.3
25°	679.1	680.8	679.7	680.8	683.1	685.9	685.9	689.3	688.7	693.2	696.0
27.5°	696.6	697.7	694.9	694.9	697.1	701.6	700.5	707.3	708.4	717.4	725.8
30°	757.3	757.3	752.8	748.3	750.0	748.9	747.8	752.3	752.3	760.7	764.7
32.5°	847.9	841.7	841.2	840.6	836.7	839.5	830.5	831.0	827.1	828.2	826.5
35°	947.5	947.0	944.7	943.6	941.9	950.3	943.6	949.2	935.1	930.1	920.5
37.5°	1034.7	1037.0	1038.7	1047.1	1051.1	1067.9	1071.9	1074.7	1060.1	1060.6	1039.2
40°	1122.5	1125.3	1131.5	1146.7	1158.0	1173.7	1181.0	1192.8	1194.0	1196.2	1180.5
42.5°	1218.2	1213.7	1222.1	1241.2	1255.3	1271.1	1280.6	1302.6	1314.9	1321.1	1323.4
45°	1295.2	1290.2	1294.1	1305.4	1318.3	1338.6	1359.4	1392.0	1418.5	1447.2	1462.9
47.5°	1335.2	1336.3	1339.1	1345.9	1354.9	1374.6	1403.8	1445.5	1488.2	1534.4	1575.4
50°	1348.1	1348.7	1352.6	1359.4	1367.8	1388.6	1419.0	1466.3	1518.1	1582.8	1645.8
52.5°	1352.1	1349.8	1353.8	1357.1	1362.8	1380.2	1408.9	1458.4	1516.9	1595.1	1688.5
55°	1337.4	1334.6	1341.4	1345.9	1350.4	1364.5	1386.4	1432.0	1492.7	1581.6	1703.7
57.5°	1281.2	1281.7	1291.3	1303.1	1314.9	1334.1	1362.8	1406.1	1466.3	1554.1	1690.8
60°	1186.1	1184.4	1196.2	1210.8	1231.1	1261.5	1296.9	1340.8	1390.9	1464.0	1598.5
62.5°	1013.4	1020.1	1024.0	1046.0	1047.1	1090.4	1113.5	1157.4	1200.2	1256.4	1377.4
65°	705.6	720.2	724.1	729.8	756.2	778.7	815.9	862.0	890.1	939.6	1029.7
67.5°	439.4	450.1	450.7	465.3	488.4	514.3	543.0	589.7	632.4	640.3	685.3
70°	364.6	365.2	373.0	383.7	401.7	428.2	456.3	489.0	527.8	552.5	548.0
72.5°	302.1	305.5	311.2	321.8	341.5	365.2	401.2	442.8	491.2	540.7	584.6
75°	202.6	208.2	209.9	214.9	224.5	245.9	272.9	312.3	374.7	448.4	541.8
77.5°	107.5	108.6	112.5	116.5	121.5	134.5	151.9	172.2	213.2	276.8	386.5
80°	54.6	56.8	59.6	62.5	61.9	65.3	70.3	79.3	93.4	121.5	175.0
82.5°	19.7	25.3	33.2	37.1	37.1	38.3	39.9	41.6	40.5	45.0	56.3
85°	9.0	10.1	12.9	20.3	20.8	20.8	20.8	21.9	20.8	18.6	21.9
87.5°	0.0	1.7	1.7	5.1	5.6	5.1	5.6	7.3	5.6	4.5	3.9
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°	83°	85°	90°	95°	100°
0°	460.8	460.8	460.8	460.8	460.8	460.8	460.8	460.8	460.8	460.8	460.8
2.5°	476.0	474.9	472.1	470.9	467.6	465.3	464.2	463.1	461.4	459.1	457.4
5°	496.8	493.5	489.5	487.3	482.8	478.3	476.6	474.3	470.4	467.0	463.1
7.5°	518.8	514.8	510.3	505.3	500.8	495.7	493.5	491.2	485.6	481.1	475.4
10°	542.4	536.8	531.7	527.2	523.3	517.6	513.7	512.0	507.0	500.2	494.6
12.5°	564.9	558.7	553.7	548.0	544.1	539.6	535.7	534.0	530.0	523.8	519.3
15°	588.5	582.4	576.7	572.8	568.3	565.5	563.2	560.4	558.7	553.7	551.4
17.5°	613.9	608.2	603.2	599.8	598.1	597.5	597.0	595.9	594.2	590.8	589.1
20°	642.6	637.5	635.8	635.2	635.8	636.4	637.5	637.5	638.1	635.8	635.2
22.5°	670.1	670.1	672.9	676.3	679.7	681.9	683.6	681.4	681.9	685.3	688.1
25°	700.5	705.6	712.9	718.5	723.6	727.5	729.8	730.9	732.0	737.1	742.1
27.5°	733.1	741.0	751.7	759.0	768.6	774.8	779.3	778.7	780.4	787.2	796.2
30°	773.7	781.5	792.8	802.9	815.9	824.9	826.5	825.4	827.7	833.9	851.9
32.5°	830.5	832.2	839.5	849.6	863.7	872.7	874.4	877.2	882.3	893.5	915.4
35°	910.4	903.1	902.5	907.0	920.5	938.0	939.6	941.3	943.6	958.2	987.5
37.5°	1018.4	988.6	970.6	956.5	958.2	964.4	967.8	968.9	974.5	997.0	1046.5
40°	1154.0	1098.3	1058.4	1018.4	1003.8	1004.9	1006.0	1004.9	1016.2	1051.1	1115.8
42.5°	1302.6	1253.6	1183.8	1101.1	1059.5	1046.0	1047.7	1048.8	1066.2	1116.9	1188.9
45°	1460.1	1428.6	1347.6	1218.2	1128.7	1094.4	1093.2	1095.5	1124.2	1195.7	1271.6
47.5°	1598.5	1606.4	1546.8	1394.8	1241.2	1154.0	1146.7	1150.6	1197.3	1273.9	1350.9
50°	1708.2	1760.0	1755.5	1635.1	1423.5	1257.0	1231.1	1236.7	1291.9	1371.2	1440.4
52.5°	1790.9	1896.2	1963.7	1915.9	1731.9	1443.8	1376.8	1367.3	1436.5	1520.3	1563.1
55°	1846.1	2016.6	2193.8	2276.5	2201.7	1847.2	1672.2	1651.4	1726.2	1833.1	1851.7
57.5°	1882.7	2162.9	2544.4	2863.9	2965.8	2661.9	2442.5	2355.3	2409.9	2523.0	2498.8
60°	1821.9	2220.8	2967.5	3540.3	3830.0	3754.6	3510.4	3378.8	3276.9	3268.5	3134.0
62.5°	1589.0	2083.0	3139.1	3862.1	4269.5	4363.4	4320.1	4164.3	3882.4	3725.9	3422.1
65°	1198.5	1706.5	3017.0	3837.3	4219.4	4427.6	4568.8	4456.8	4029.2	3758.6	3354.6
67.5°	765.8	1101.7	2509.5	3539.7	3898.7	4132.7	4415.2	4364.0	3817.7	3472.2	3032.7
70°	559.3	610.5	1702.6	2996.2	3391.2	3597.1	3985.3	3962.8	3347.8	2959.6	2524.1
72.5°	644.2	455.2	933.5	2238.3	2543.8	2705.8	2928.1	2873.5	2339.0	2069.5	1761.1
75°	726.4	509.2	526.1	1327.9	1421.3	1307.6	1338.0	1161.9	906.4	803.5	791.7
77.5°	611.6	638.6	477.1	570.5	525.5	378.7	283.6	222.3	173.9	186.8	207.6
80°	355.6	718.0	631.3	297.1	333.1	265.0	118.2	97.9	81.0	82.1	83.3
82.5°	109.7	448.4	888.4	362.9	329.7	373.6	108.6	66.4	53.5	60.2	68.1
85°	36.6	187.9	712.3	380.9	213.2	199.2	47.8	32.6	27.0	37.7	53.5
87.5°	9.0	45.6	132.2	50.1	31.5	19.1	16.3	11.8	12.9	23.6	33.2
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):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	460.8	460.8	460.8	460.8	460.8	460.8	460.8	460.8	460.8	460.8	460.8
2.5°	456.3	454.6	452.9	451.8	450.1	450.1	448.4	448.4	446.2	445.1	445.1
5°	459.7	456.3	453.5	450.7	447.9	446.8	444.5	443.4	441.1	439.4	438.3
7.5°	470.9	466.4	463.1	459.7	456.3	454.6	452.4	450.1	449.6	448.4	447.3
10°	490.1	483.9	481.1	478.8	474.3	473.2	470.9	469.3	467.6	465.9	466.4
12.5°	514.8	510.3	509.2	504.7	503.6	501.9	498.5	497.4	492.9	489.5	487.8
15°	546.3	544.7	544.7	542.4	539.0	536.2	531.2	528.3	520.5	515.4	509.8
17.5°	588.0	586.3	586.9	584.6	580.7	575.6	570.0	561.5	549.7	540.7	529.5
20°	636.4	635.8	636.9	635.2	630.2	623.4	609.9	597.5	581.2	564.9	552.5
22.5°	690.4	693.2	694.3	689.8	684.2	670.1	655.5	637.5	615.6	594.2	576.7
25°	747.8	754.5	758.5	752.3	745.5	727.5	705.6	681.4	650.4	624.6	601.5
27.5°	804.0	818.1	823.7	820.4	809.7	784.3	755.1	723.0	685.3	651.0	621.2
30°	871.0	889.6	899.7	894.6	873.8	840.6	805.2	761.8	714.0	672.9	636.9
32.5°	941.3	964.4	971.7	961.0	930.6	889.0	842.9	790.0	736.0	688.7	648.2
35°	1019.5	1040.9	1042.6	1021.8	981.8	929.0	871.6	808.0	746.1	693.2	648.7
37.5°	1087.6	1109.0	1107.3	1076.4	1028.0	962.1	889.0	811.9	739.9	679.7	631.3
40°	1159.1	1182.7	1169.8	1129.8	1067.4	983.5	891.3	798.4	716.3	650.4	597.5
42.5°	1234.5	1244.6	1221.5	1171.5	1091.0	983.0	872.1	766.3	679.1	606.0	550.3
45°	1303.7	1295.8	1262.6	1195.7	1089.3	958.8	834.4	726.4	629.6	556.5	501.9
47.5°	1365.6	1340.8	1289.6	1195.7	1062.9	916.0	786.0	674.6	578.4	504.7	450.7
50°	1432.5	1380.8	1300.9	1174.8	1015.0	864.2	734.8	622.9	523.8	448.4	389.4
52.5°	1521.4	1428.6	1300.9	1137.1	965.5	811.9	680.8	562.7	460.3	381.5	323.0
55°	1729.6	1528.7	1323.4	1116.3	921.6	756.8	616.7	485.0	385.4	310.0	261.6
57.5°	2138.7	1748.2	1436.5	1154.6	905.3	697.1	534.0	398.9	304.4	241.4	200.9
60°	2479.1	1925.4	1528.2	1183.8	878.9	620.1	432.7	305.5	226.2	178.4	151.9
62.5°	2566.9	1927.7	1490.5	1107.9	772.0	504.7	319.0	210.4	155.3	129.4	115.3
65°	2347.4	1704.9	1267.7	903.6	588.0	350.5	199.7	127.7	103.5	94.5	88.9
67.5°	1973.3	1358.3	939.6	630.2	370.8	193.0	112.0	87.8	78.8	76.0	73.1
70°	1513.6	954.3	611.6	369.1	194.1	100.2	79.9	72.0	68.1	66.4	64.1
72.5°	932.9	563.8	332.5	177.2	96.8	76.5	71.5	68.6	63.6	61.3	59.1
75°	396.1	241.9	137.9	90.0	77.6	73.1	69.2	65.8	61.9	58.5	56.3
77.5°	133.4	92.3	81.6	78.8	77.6	73.1	68.1	63.6	59.6	55.7	53.5
80°	81.0	73.7	75.4	74.8	77.6	72.6	65.8	60.8	56.3	52.3	49.5
82.5°	70.3	69.8	71.5	73.1	77.1	69.8	61.9	54.6	49.0	45.0	42.2
85°	60.8	61.9	63.0	64.1	66.4	59.1	50.1	43.3	38.8	33.8	31.5
87.5°	40.5	43.9	46.1	46.7	45.0	28.1	16.3	19.1	19.7	16.9	15.2
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-E02-LED-E1-T2-8030

**CANDELA DISTRIBUTION (continued):**

	160°	165°	170°	175°	180°
0°	460.8	460.8	460.8	460.8	460.8
2.5°	443.4	442.8	444.5	442.8	442.8
5°	437.7	437.2	437.2	437.2	436.1
7.5°	446.8	446.2	445.6	445.6	445.1
10°	464.2	463.6	463.6	463.1	463.1
12.5°	485.0	482.8	482.2	481.1	481.6
15°	505.3	499.1	497.4	495.7	494.0
17.5°	521.0	513.7	509.8	506.4	506.4
20°	540.7	531.2	526.1	521.0	521.0
22.5°	563.2	550.3	543.5	537.9	535.7
25°	581.8	565.5	555.9	549.2	547.5
27.5°	595.9	575.0	562.7	554.8	552.5
30°	607.1	583.5	568.8	560.4	557.0
32.5°	614.4	588.5	572.8	564.3	561.0
35°	610.5	582.9	563.8	553.7	551.4
37.5°	590.8	561.5	539.0	528.3	524.4
40°	554.8	523.3	499.6	486.7	484.5
42.5°	507.5	476.0	453.5	440.0	433.8
45°	456.9	424.2	402.9	390.5	383.2
47.5°	402.3	370.2	348.3	335.9	330.8
50°	344.9	314.0	295.4	281.9	276.8
52.5°	285.3	257.7	239.1	227.9	222.3
55°	228.4	205.9	190.2	182.9	178.9
57.5°	178.4	163.7	154.7	150.2	147.4
60°	138.4	131.1	127.7	124.3	124.9
62.5°	108.0	106.3	105.2	103.5	104.1
65°	87.2	86.1	86.6	86.1	86.6
67.5°	71.5	72.0	73.1	73.1	73.7
70°	63.0	63.6	64.7	64.7	64.7
72.5°	58.5	59.6	60.8	60.2	60.2
75°	55.1	58.0	60.2	58.0	55.7
77.5°	51.8	58.5	64.7	59.6	53.5
80°	47.3	61.9	69.2	60.2	51.2
82.5°	45.0	59.6	60.8	52.3	45.0
85°	41.6	67.5	70.3	47.8	34.3
87.5°	21.4	40.5	46.7	32.1	17.4
90°	0.0	0.0	0.0	0.0	0.0

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