

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: P141870

Luminaire Tested: **ECM-E02-LED-E1-T3**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141870
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33683)
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-T3
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 3
Light Source: (42) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5872.5 lumens
Efficiency: N/A
Efficacy: 112.7 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

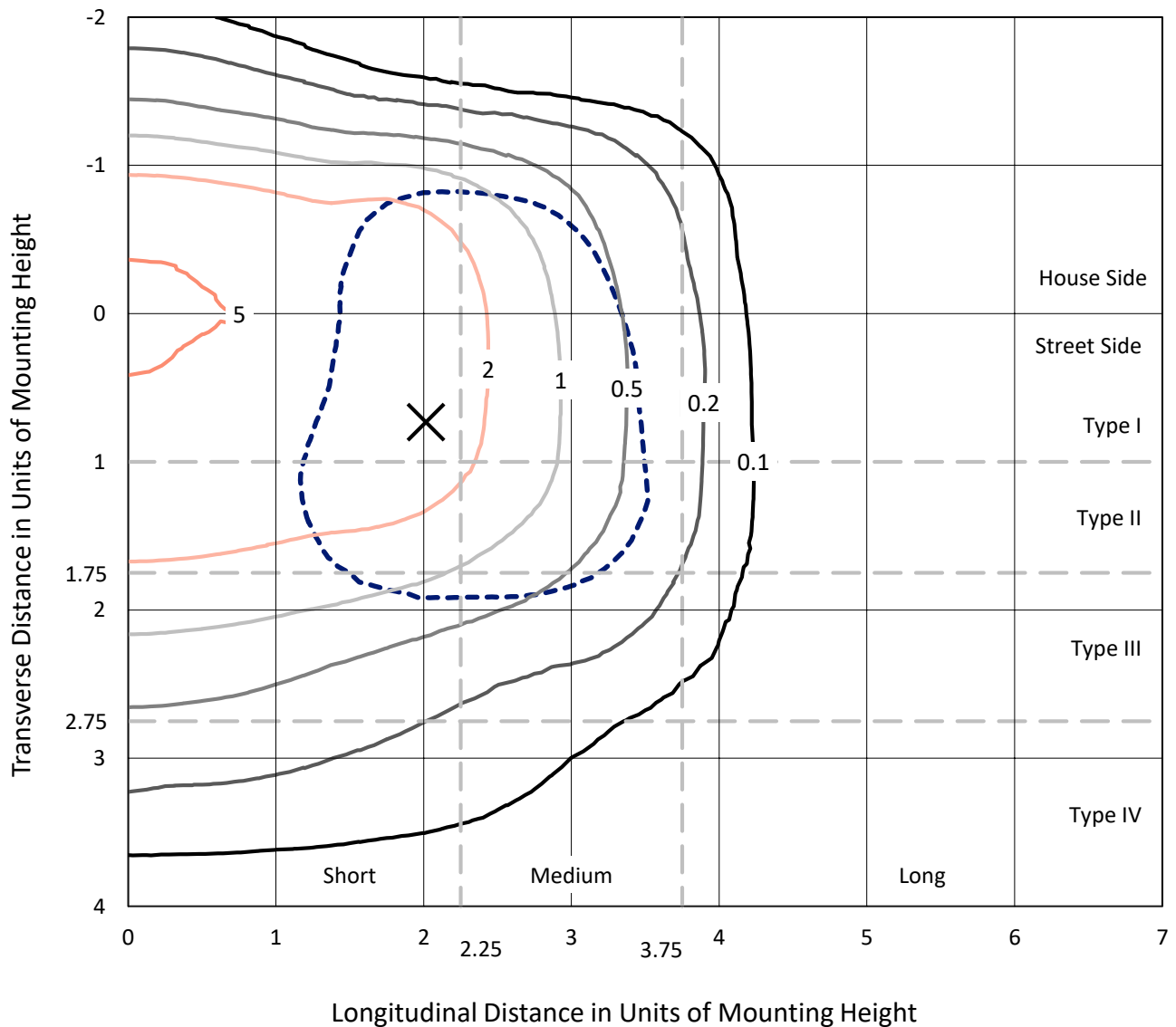
Input Watts (W): 52.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

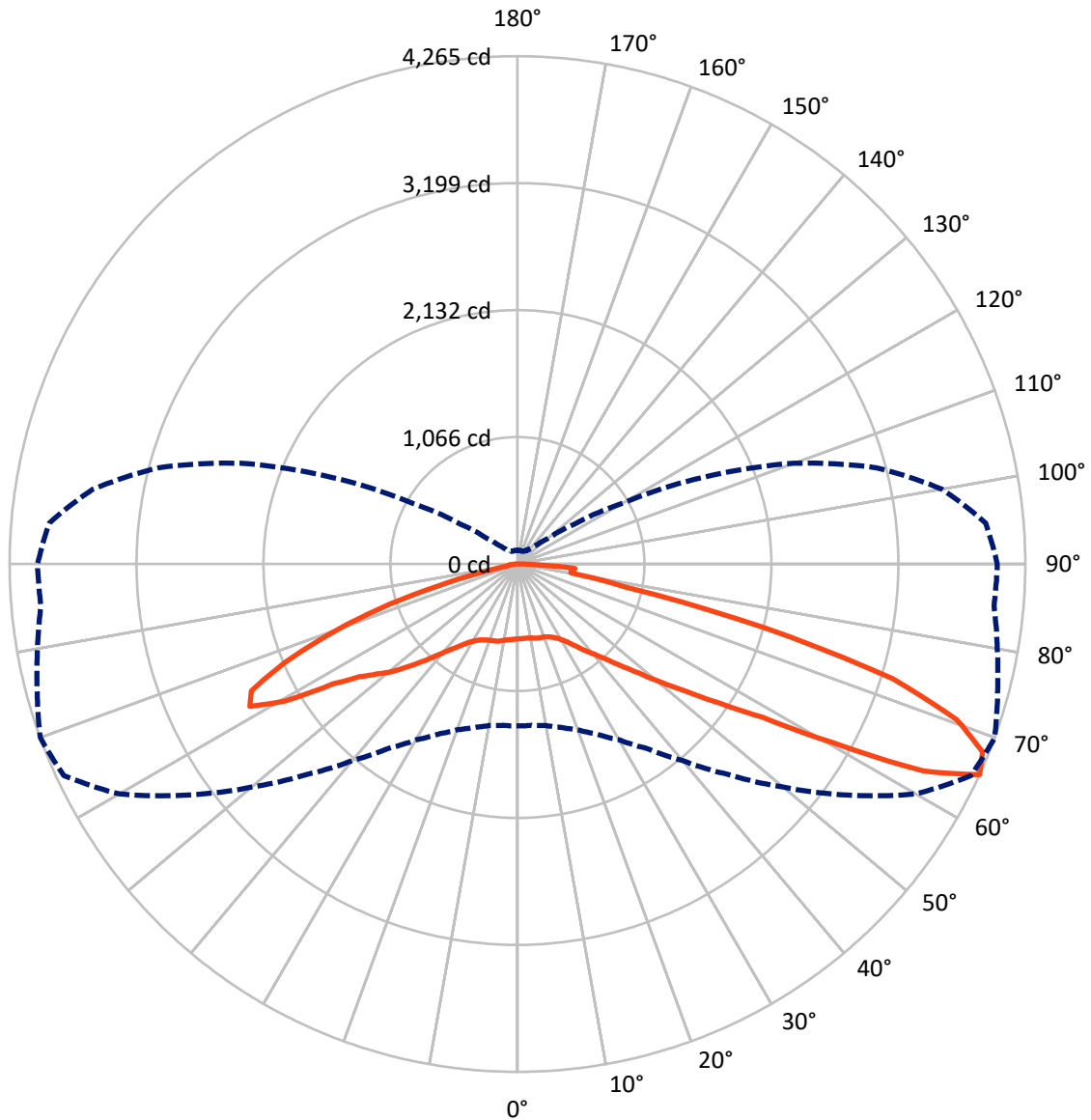
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.3 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1982.4	0.0	1982.4
	% Fixture	33.8	0.0	33.8
Street Side	Lumens	3890.1	0.0	3890.1
	% Fixture	66.2	0.0	66.2
Total	Lumens	5872.5	0.0	5872.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.6	1.0
10°-20°	179.4	3.1
20°-30°	308.5	5.3
30°-40°	494.4	8.4
40°-50°	809.5	13.8
50°-60°	1267.1	21.6
60°-70°	1780.7	30.3
70°-80°	842.7	14.4
80°-90°	129.5	2.2
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°	5872.5	100.0
0°-180°	5872.5	100.0

Coefficient of Utilization



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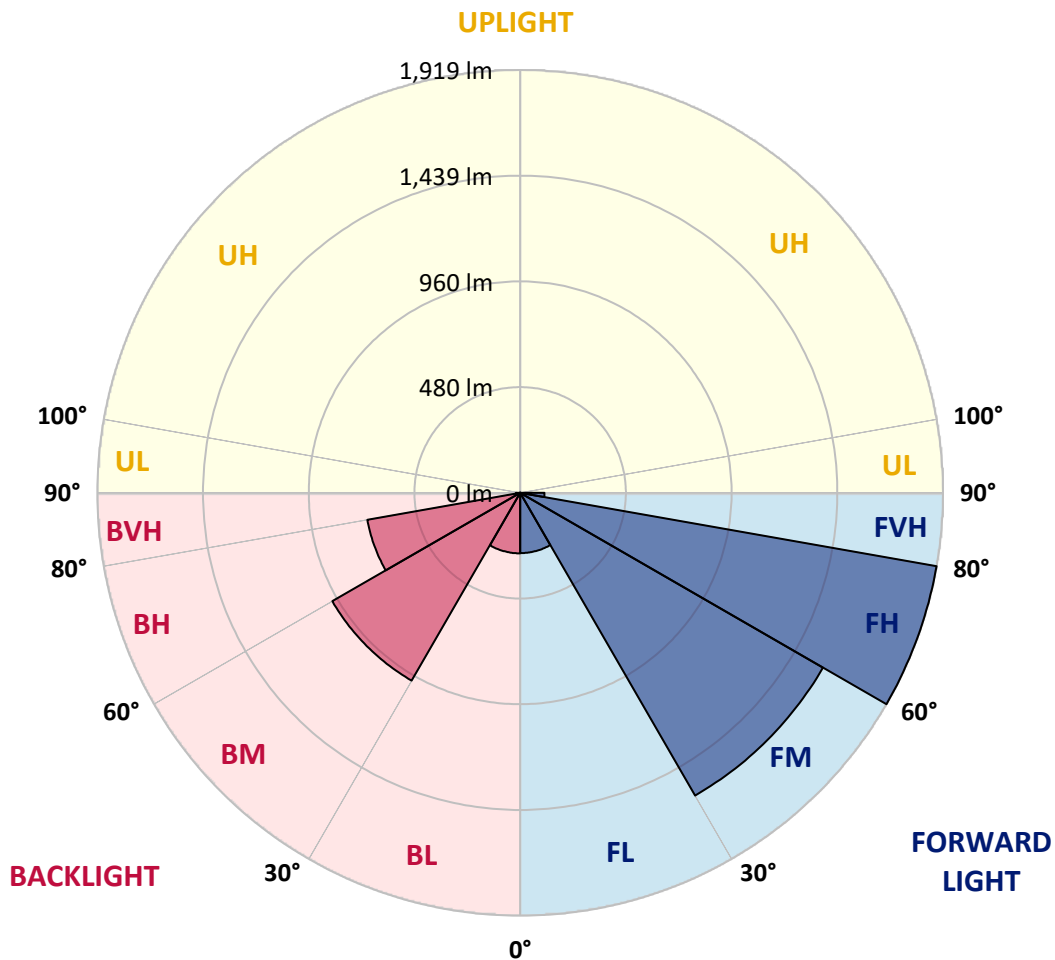
CATALOG NUMBER: ECM-E02-LED-E1-T3

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	273.6	4.7			
FM	(30°-60°)	1586.9	27.0			
FH	(60°-80°)	1919.3	32.7			G2/5000
FVH	(80°-90°)	110.3	1.9			G2/225
BL	(0°-30°)	274.9	4.7	B1/500		
BM	(30°-60°)	984.2	16.8	B1/1000		
BH	(60°-80°)	704.2	12.0	B2/1000		G2/1000
BVH	(80°-90°)	19.1	0.3			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	629.3	629.3	629.3	629.3	629.3	629.3	629.3	629.3	629.3	629.3	629.3
2.5°	626.0	626.7	626.7	625.3	625.3	626.0	626.0	626.7	626.7	626.7	627.3
5°	626.0	626.7	626.7	626.0	625.3	626.7	626.0	626.7	626.7	626.7	626.7
7.5°	624.7	625.3	625.3	624.7	625.3	626.0	626.0	627.3	628.0	628.0	628.7
10°	618.0	618.7	619.3	619.3	620.7	622.7	623.3	626.0	626.7	628.7	630.0
12.5°	606.0	606.0	607.3	608.7	610.7	614.7	616.7	620.7	624.0	626.7	631.3
15°	595.3	595.3	596.7	597.3	601.3	604.0	608.0	612.7	618.7	624.0	631.3
17.5°	600.7	600.7	600.0	599.3	600.0	600.0	603.3	608.0	613.3	620.7	630.0
20°	621.3	620.7	618.0	616.7	616.0	613.3	611.3	610.7	613.3	618.7	628.0
22.5°	639.3	638.0	637.3	636.0	638.0	636.7	634.0	630.7	626.7	624.7	630.0
25°	650.0	650.7	650.7	650.7	654.7	656.0	657.3	653.3	648.7	642.0	642.7
27.5°	664.7	665.3	664.0	666.7	671.3	674.7	678.0	680.7	678.0	674.0	669.3
30°	696.0	696.0	694.0	696.0	700.0	703.3	708.0	712.7	712.7	708.7	704.0
32.5°	728.7	729.3	729.3	730.7	736.7	739.3	746.0	750.7	754.0	751.3	754.0
35°	768.0	767.3	769.3	770.0	779.3	782.7	796.0	799.3	804.7	806.0	808.0
37.5°	833.3	834.7	830.7	828.0	836.0	836.0	853.3	862.7	861.3	870.7	877.3
40°	938.7	932.7	930.7	929.3	934.0	933.3	932.7	945.3	951.3	952.7	956.0
42.5°	1055.3	1057.3	1055.3	1060.0	1060.0	1056.7	1054.0	1052.0	1063.3	1070.7	1072.0
45°	1192.0	1194.7	1190.7	1187.3	1196.0	1200.7	1200.7	1206.0	1215.3	1218.7	1216.7
47.5°	1301.3	1308.7	1305.3	1310.0	1324.0	1340.0	1361.3	1375.3	1385.3	1394.7	1409.3
50°	1400.0	1403.3	1411.3	1426.7	1447.3	1472.7	1507.3	1542.0	1562.0	1585.3	1602.7
52.5°	1460.0	1470.0	1482.0	1507.3	1542.0	1577.3	1630.7	1687.3	1738.0	1764.0	1784.7
55°	1496.0	1503.3	1519.3	1554.0	1602.7	1655.3	1722.0	1800.0	1867.3	1924.7	1969.3
57.5°	1494.7	1500.7	1522.7	1560.7	1618.7	1684.7	1768.0	1865.3	1964.7	2060.0	2144.0
60°	1466.0	1471.3	1493.3	1534.0	1597.3	1676.0	1776.0	1895.3	2030.0	2173.3	2320.7
62.5°	1422.0	1426.0	1445.3	1486.0	1550.0	1634.0	1751.3	1908.0	2099.3	2325.3	2611.3
65°	1360.0	1360.0	1378.0	1420.0	1481.3	1575.3	1704.7	1888.7	2153.3	2497.3	2913.3
67.5°	1268.7	1268.7	1283.3	1318.0	1366.0	1431.3	1560.7	1752.0	2031.3	2443.3	2930.0
70°	1096.0	1098.7	1098.7	1120.0	1141.3	1170.7	1232.0	1378.7	1640.7	2043.3	2522.0
72.5°	803.3	754.7	792.7	827.3	851.3	867.3	902.7	948.7	1080.7	1382.7	1816.0
75°	506.0	518.7	547.3	586.7	646.0	707.3	774.7	803.3	791.3	827.3	1118.7
77.5°	306.7	296.0	324.0	382.7	449.3	532.7	658.7	768.0	830.7	826.7	792.0
80°	132.7	129.3	148.0	176.0	208.7	284.0	399.3	549.3	716.0	812.7	798.0
82.5°	47.3	48.0	60.7	72.0	86.7	111.3	158.0	252.7	400.7	570.7	705.3
85°	14.0	15.3	21.3	30.0	34.0	38.7	53.3	79.3	135.3	216.0	384.0
87.5°	4.0	4.7	6.0	10.7	10.0	9.3	10.7	16.7	12.7	10.7	53.3
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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CATALOG NUMBER: ECM-E02-LED-E1-T3

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	629.3	629.3	629.3	629.3	629.3	629.3	629.3	629.3	629.3	629.3	629.3
2.5°	626.7	626.7	626.7	627.3	626.7	626.7	627.3	627.3	628.0	628.7	630.0
5°	626.0	626.0	626.7	626.7	626.7	627.3	628.0	628.7	630.0	632.0	634.0
7.5°	628.0	628.0	627.3	628.0	628.0	628.7	630.0	630.7	633.3	635.3	638.7
10°	630.0	630.0	630.7	631.3	631.3	632.7	634.7	635.3	638.0	642.0	645.3
12.5°	632.7	634.7	637.3	638.7	640.0	641.3	643.3	644.7	648.0	653.3	657.3
15°	634.7	639.3	642.0	645.3	647.3	648.0	650.0	652.7	656.0	661.3	666.0
17.5°	634.7	640.7	644.7	648.0	651.3	653.3	655.3	658.0	662.7	668.0	672.7
20°	634.0	642.7	648.0	653.3	659.3	661.3	664.7	667.3	672.7	679.3	682.7
22.5°	637.3	647.3	654.7	664.0	670.7	676.0	680.0	684.7	688.7	693.3	694.7
25°	647.3	657.3	669.3	680.7	690.0	698.0	703.3	707.3	712.0	714.0	711.3
27.5°	664.0	671.3	688.0	704.7	719.3	729.3	735.3	740.7	742.0	746.0	736.0
30°	694.0	697.3	714.7	738.7	755.3	772.0	780.0	785.3	786.0	783.3	766.0
32.5°	743.3	737.3	752.7	784.7	810.0	824.0	836.7	840.0	838.0	829.3	801.3
35°	803.3	794.0	801.3	848.0	876.0	896.7	908.7	912.0	907.3	892.0	853.3
37.5°	877.3	874.0	877.3	922.0	970.7	990.0	995.3	999.3	988.0	960.0	909.3
40°	959.3	960.0	956.0	996.7	1058.0	1086.0	1098.7	1090.0	1076.0	1036.0	980.0
42.5°	1072.7	1068.7	1054.7	1091.3	1170.0	1198.7	1210.0	1203.3	1189.3	1138.7	1073.3
45°	1222.7	1209.3	1196.0	1215.3	1291.3	1328.7	1345.3	1340.7	1316.0	1254.7	1193.3
47.5°	1406.0	1392.0	1367.3	1364.0	1440.7	1484.7	1490.7	1483.3	1464.7	1403.3	1328.0
50°	1598.7	1594.7	1583.3	1556.7	1625.3	1669.3	1665.3	1660.0	1639.3	1561.3	1484.0
52.5°	1798.0	1806.0	1798.7	1780.0	1853.3	1871.3	1872.7	1856.7	1832.7	1760.7	1655.3
55°	2007.3	2037.3	2048.7	2063.3	2121.3	2118.7	2103.3	2065.3	2071.3	1989.3	1843.3
57.5°	2229.3	2321.3	2394.0	2426.7	2482.0	2498.0	2459.3	2472.0	2466.7	2382.0	2152.0
60°	2522.0	2742.0	2931.3	3048.0	3122.7	3094.0	3148.0	3150.7	3242.0	3056.0	2697.3
62.5°	2988.7	3392.7	3728.7	3829.3	3848.7	3842.0	3778.0	3842.0	3824.7	3598.0	3133.3
65°	3381.3	3862.0	4203.3	4264.7	4174.7	4092.0	4017.3	4030.0	3947.3	3619.3	3120.7
67.5°	3434.7	3913.3	4230.0	4212.7	4016.0	3862.7	3738.7	3641.3	3472.7	3176.0	2741.3
70°	3012.7	3520.0	3928.0	3914.7	3641.3	3436.7	3235.3	3088.7	2916.7	2687.3	2276.0
72.5°	2343.3	2795.3	3190.7	3293.3	3024.0	2798.0	2613.3	2426.7	2249.3	2031.3	1772.0
75°	1595.3	1935.3	2119.3	2147.3	1900.7	1731.3	1660.0	1507.3	1319.3	1272.7	1080.7
77.5°	926.7	1057.3	1001.3	926.7	746.0	548.0	418.7	358.0	359.3	412.7	395.3
80°	753.3	717.3	566.0	454.0	308.7	157.3	105.3	90.7	91.3	106.0	102.7
82.5°	776.7	797.3	655.3	458.7	316.0	166.7	80.0	59.3	69.3	75.3	74.0
85°	575.3	754.0	676.0	486.7	339.3	177.3	52.0	32.7	46.0	56.0	60.0
87.5°	161.3	253.3	196.7	130.0	94.7	32.0	20.7	17.3	21.3	29.3	29.3
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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CATALOG NUMBER: ECM-E02-LED-E1-T3

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	629.3	629.3	629.3	629.3	629.3	629.3	629.3	629.3	629.3	629.3	629.3
2.5°	630.7	633.3	632.7	634.0	634.7	636.7	638.0	637.3	637.3	638.7	640.0
5°	636.0	639.3	639.3	641.3	643.3	646.0	648.0	646.7	647.3	648.7	650.0
7.5°	641.3	645.3	646.0	648.0	649.3	650.7	652.0	650.0	649.3	649.3	648.7
10°	648.0	652.0	651.3	651.3	650.7	649.3	646.7	642.0	638.7	636.7	635.3
12.5°	659.3	662.0	658.0	654.0	647.3	642.7	636.7	631.3	627.3	624.0	622.7
15°	669.3	668.0	663.3	656.0	646.7	639.3	633.3	626.0	621.3	617.3	615.3
17.5°	674.7	670.0	663.3	656.7	648.7	642.0	634.7	626.0	618.7	613.3	610.7
20°	680.0	672.7	664.0	657.3	651.3	646.0	640.7	630.0	620.7	612.7	608.7
22.5°	688.0	678.0	669.3	663.3	657.3	652.0	646.7	636.7	626.7	616.0	610.0
25°	699.3	686.0	680.0	674.0	667.3	662.0	654.7	645.3	634.7	622.0	613.3
27.5°	717.3	705.3	698.7	692.7	684.7	676.0	668.0	655.3	645.3	630.7	619.3
30°	743.3	730.7	724.7	718.7	709.3	698.0	686.7	670.7	656.7	640.0	625.3
32.5°	776.0	769.3	762.0	752.0	739.3	725.3	708.7	687.3	667.3	646.7	628.0
35°	826.7	815.3	803.3	793.3	774.7	755.3	730.0	698.7	672.0	646.7	624.0
37.5°	884.7	872.7	856.7	838.7	810.7	780.0	744.7	705.3	670.0	639.3	614.0
40°	954.7	939.3	918.0	884.0	842.7	796.7	749.3	700.0	658.7	623.3	594.0
42.5°	1047.3	1016.0	974.7	924.7	866.0	803.3	743.3	686.0	639.3	600.7	571.3
45°	1152.0	1102.0	1035.3	960.7	879.3	800.7	730.0	663.3	610.7	568.0	537.3
47.5°	1264.7	1186.7	1088.7	983.3	880.7	786.0	704.0	629.3	570.0	524.7	486.7
50°	1392.0	1263.3	1126.0	994.7	872.0	760.0	666.7	580.7	519.3	465.3	430.7
52.5°	1501.3	1330.7	1152.0	990.0	841.3	714.7	605.3	522.0	450.0	402.0	368.0
55°	1630.7	1396.0	1166.0	966.7	792.0	644.0	539.3	446.7	378.7	336.0	306.7
57.5°	1848.7	1506.7	1178.0	919.3	710.7	555.3	448.0	361.3	308.0	270.7	250.0
60°	2269.3	1721.3	1227.3	848.7	607.3	448.7	346.0	282.7	236.7	212.0	197.3
62.5°	2544.7	1867.3	1205.3	740.0	474.7	336.0	253.3	204.0	177.3	159.3	152.7
65°	2474.7	1720.0	1022.7	586.7	330.7	223.3	170.0	140.0	128.0	118.7	114.7
67.5°	2125.3	1387.3	741.3	379.3	209.3	136.0	111.3	99.3	94.0	90.0	89.3
70°	1693.3	978.0	440.7	201.3	116.0	90.0	79.3	74.7	72.7	72.7	72.7
72.5°	1228.7	563.3	216.7	108.7	78.0	68.7	64.0	62.7	62.0	62.0	62.7
75°	702.0	244.0	111.3	74.7	64.0	59.3	56.7	56.7	56.7	56.7	57.3
77.5°	244.7	111.3	78.7	62.7	55.3	52.7	51.3	52.7	53.3	53.3	53.3
80°	89.3	78.7	67.3	54.7	49.3	46.7	46.7	48.7	50.0	48.7	48.0
82.5°	70.7	62.0	54.7	47.3	43.3	42.0	42.7	44.0	43.3	42.7	40.7
85°	54.0	40.7	38.0	35.3	34.7	34.7	37.3	38.0	35.3	34.0	32.0
87.5°	26.7	21.3	19.3	22.7	22.0	20.0	20.7	20.7	17.3	16.0	16.7
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-E02-LED-E1-T3

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	629.3	629.3	629.3	629.3
2.5°	640.0	640.7	642.7	642.0
5°	649.3	650.0	651.3	651.3
7.5°	647.3	648.0	648.0	648.0
10°	632.0	632.0	633.3	633.3
12.5°	620.0	619.3	619.3	618.0
15°	612.7	611.3	612.0	610.0
17.5°	607.3	606.7	606.7	605.3
20°	605.3	604.0	603.3	602.0
22.5°	604.0	603.3	602.0	600.7
25°	607.3	604.0	603.3	602.0
27.5°	610.7	607.3	604.7	604.0
30°	614.0	608.0	604.7	603.3
32.5°	613.3	605.3	600.7	598.7
35°	606.0	596.0	590.0	588.0
37.5°	592.0	580.7	571.3	568.0
40°	572.0	557.3	548.7	544.0
42.5°	548.0	531.3	524.0	520.0
45°	508.7	495.3	486.7	483.3
47.5°	464.7	446.7	438.7	435.3
50°	408.0	393.3	386.7	382.0
52.5°	348.0	334.7	328.7	326.0
55°	290.0	283.3	274.0	272.0
57.5°	235.3	233.3	226.7	226.0
60°	191.3	188.0	183.3	183.3
62.5°	150.7	147.3	145.3	145.3
65°	116.0	115.3	114.0	113.3
67.5°	89.3	91.3	92.0	90.7
70°	74.7	75.3	75.3	75.3
72.5°	64.7	64.7	64.7	64.0
75°	58.7	58.7	57.3	56.7
77.5°	54.0	53.3	54.0	53.3
80°	47.3	46.7	45.3	44.0
82.5°	39.3	38.7	35.3	35.3
85°	30.7	28.7	26.0	23.3
87.5°	17.3	15.3	11.3	8.0
90°	0.0	0.0	0.0	0.0

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