

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: P141714

Luminaire Tested: **ECM-F02-LED-E1-T2-7030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141714
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-F02-LED-E1-T2-7030
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 2
Light Source: (14) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4445.7 lumens
Efficiency: N/A
Efficacy: 80.8 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

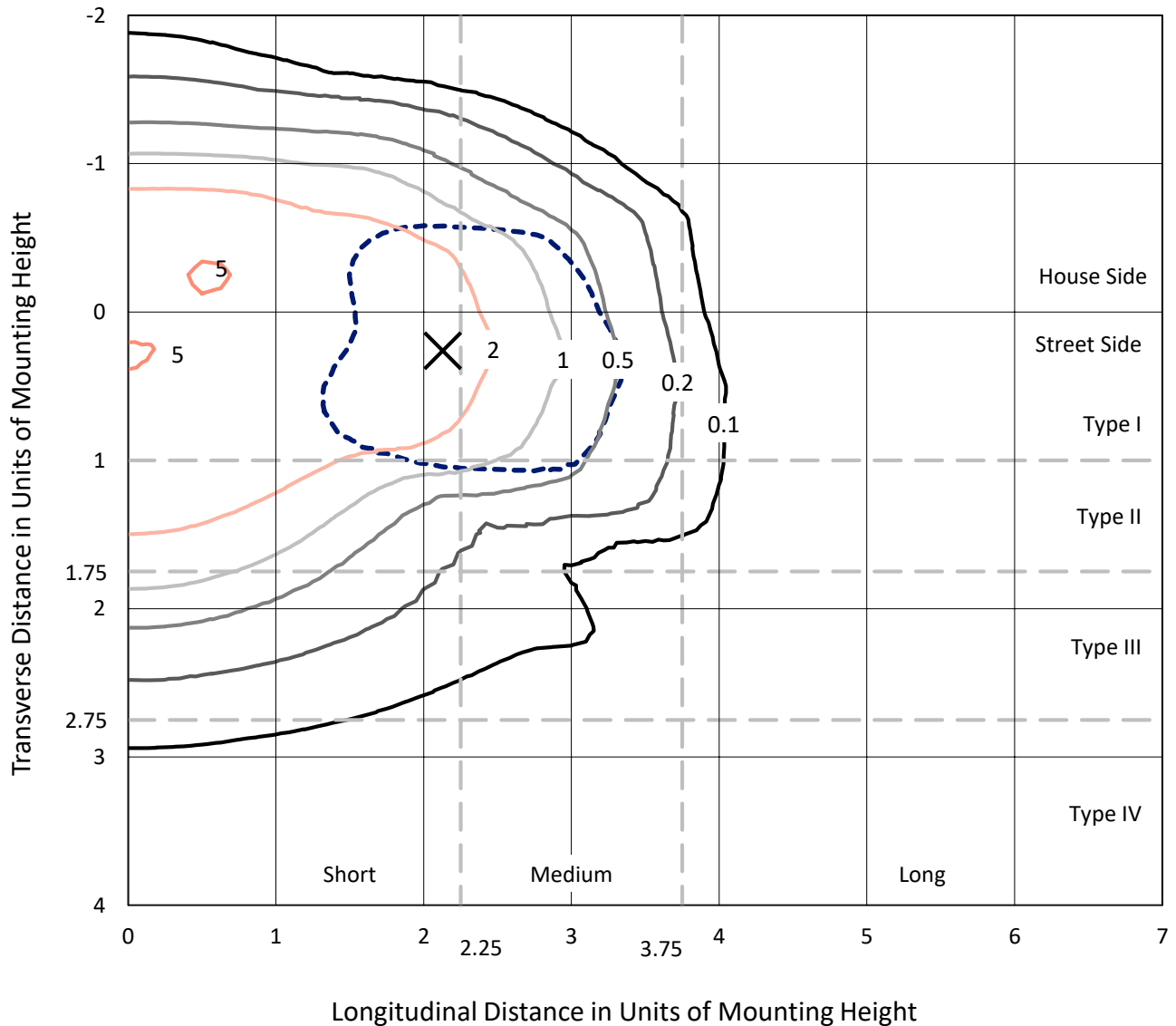
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

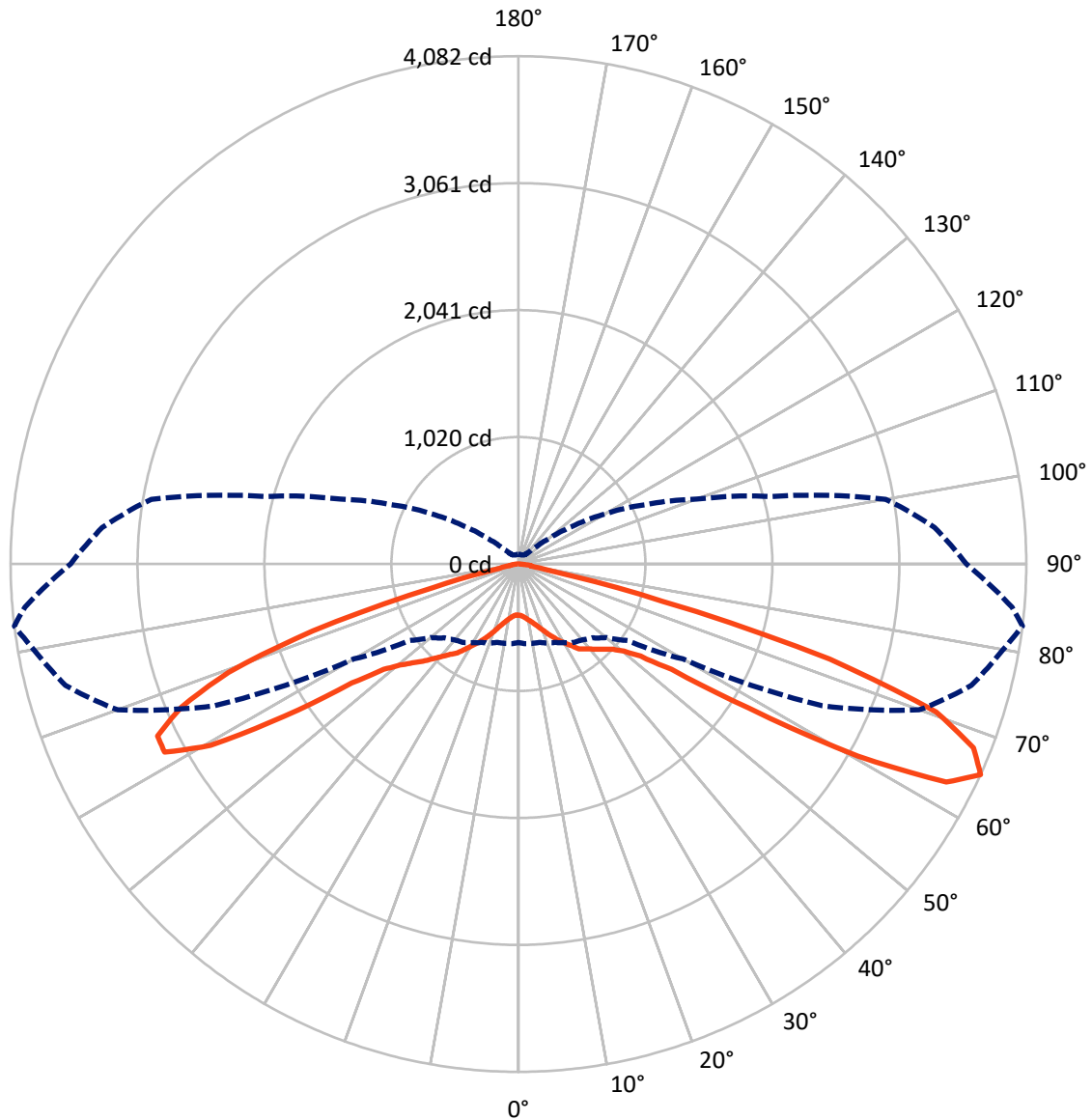


Based on 10 foot mounting height. Maximum calculated value = 5.2 fc
 Type II - Short - Semi-Cutoff

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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
House Side	Lumens	1649.0	0.0	1649.0
	% Fixture	37.1	0.0	37.1
Street Side	Lumens	2796.6	0.0	2796.6
	% Fixture	62.9	0.0	62.9
Total	Lumens	4445.7	0.0	4445.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.4	0.9
10°-20°	145.1	3.3
20°-30°	286.7	6.4
30°-40°	493.4	11.1
40°-50°	744.3	16.7
50°-60°	1035.8	23.3
60°-70°	1195.5	26.9
70°-80°	434.5	9.8
80°-90°	69.0	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°	4445.7	100.0
0°-180°	4445.7	100.0



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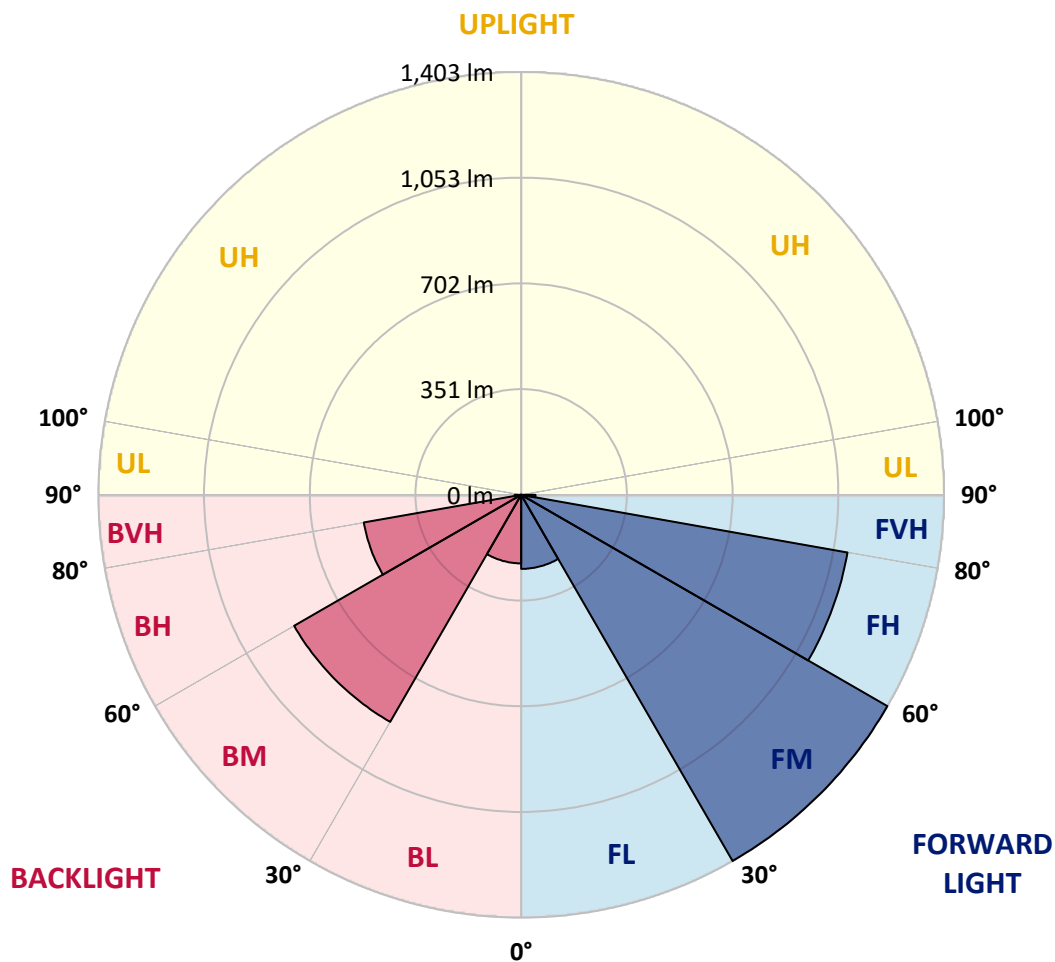
CATALOG NUMBER: ECM-F02-LED-E1-T2-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	245.8	5.5			
FM	(30°-60°)	1403.4	31.6			
FH	(60°-80°)	1099.8	24.7			G1/1800
FVH	(80°-90°)	47.7	1.1			G1/100
BL	(0°-30°)	227.4	5.1	B1/500		
BM	(30°-60°)	870.1	19.6	B1/1000		
BH	(60°-80°)	530.2	11.9	B2/1000		G2/1000
BVH	(80°-90°)	21.3	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°	411.7	411.7	411.7	411.7	411.7	411.7	411.7	411.7	411.7	411.7	411.7
2.5°	431.8	432.8	431.8	431.8	431.3	430.8	430.8	430.3	429.3	428.3	427.8
5°	455.4	455.9	454.4	454.4	454.9	454.4	452.9	453.4	449.4	447.9	446.9
7.5°	481.6	483.1	481.0	480.0	479.5	478.5	477.0	474.5	471.5	469.0	467.5
10°	511.2	512.7	511.7	509.7	506.7	505.2	503.7	499.6	496.1	492.1	489.1
12.5°	546.4	546.9	545.9	541.9	539.9	535.3	530.3	525.8	520.8	514.7	509.7
15°	581.1	581.6	580.1	576.1	573.5	568.0	561.0	554.9	546.4	539.4	532.8
17.5°	607.7	608.7	605.7	602.7	599.2	592.1	585.6	578.6	569.5	562.0	555.4
20°	616.8	618.3	616.3	614.8	612.7	609.2	602.7	596.7	588.6	583.1	578.1
22.5°	612.7	614.3	613.2	613.2	613.2	612.7	609.7	608.2	603.2	600.7	599.7
25°	606.7	608.2	607.2	608.2	610.2	612.7	612.7	615.8	615.3	619.3	621.8
27.5°	622.3	623.3	620.8	620.8	622.8	626.8	625.8	631.8	632.9	640.9	648.4
30°	676.6	676.6	672.6	668.5	670.0	669.0	668.0	672.1	672.1	679.6	683.1
32.5°	757.5	752.0	751.5	751.0	747.5	750.0	741.9	742.4	738.9	739.9	738.4
35°	846.5	846.0	844.0	843.0	841.5	849.0	843.0	848.0	835.4	830.9	822.4
37.5°	924.4	926.4	927.9	935.5	939.0	954.1	957.6	960.1	947.0	947.5	928.4
40°	1002.8	1005.3	1010.9	1024.4	1034.5	1048.6	1055.1	1065.6	1066.6	1068.7	1054.6
42.5°	1088.3	1084.2	1091.8	1108.9	1121.4	1135.5	1144.1	1163.7	1174.7	1180.3	1182.3
45°	1157.1	1152.6	1156.1	1166.2	1177.7	1195.8	1214.4	1243.6	1267.2	1292.8	1306.9
47.5°	1192.8	1193.8	1196.3	1202.4	1210.4	1228.0	1254.1	1291.3	1329.5	1370.8	1407.5
50°	1204.4	1204.9	1208.4	1214.4	1222.0	1240.6	1267.7	1309.9	1356.2	1414.0	1470.3
52.5°	1207.9	1205.9	1209.4	1212.4	1217.4	1233.0	1258.7	1302.9	1355.2	1425.0	1508.5
55°	1194.8	1192.3	1198.3	1202.4	1206.4	1219.0	1238.6	1279.3	1333.6	1413.0	1522.1
57.5°	1144.6	1145.1	1153.6	1164.2	1174.7	1191.8	1217.4	1256.2	1309.9	1388.4	1510.5
60°	1059.6	1058.1	1068.7	1081.7	1099.8	1127.0	1158.6	1197.8	1242.6	1307.9	1428.1
62.5°	905.3	911.3	914.8	934.4	935.5	974.2	994.8	1034.0	1072.2	1122.4	1230.5
65°	630.3	643.4	646.9	652.0	675.6	695.7	728.9	770.1	795.2	839.4	919.9
67.5°	392.6	402.1	402.6	415.7	436.3	459.4	485.1	526.8	565.0	572.0	612.2
70°	325.7	326.2	333.3	342.8	358.9	382.5	407.7	436.8	471.5	493.6	489.6
72.5°	269.9	272.9	278.0	287.5	305.1	326.2	358.4	395.6	438.8	483.1	522.3
75°	181.0	186.0	187.5	192.0	200.6	219.7	243.8	279.0	334.8	400.6	484.1
77.5°	96.0	97.0	100.5	104.1	108.6	120.1	135.7	153.8	190.5	247.3	345.3
80°	48.8	50.8	53.3	55.8	55.3	58.3	62.8	70.9	83.4	108.6	156.3
82.5°	17.6	22.6	29.7	33.2	33.2	34.2	35.7	37.2	36.2	40.2	50.3
85°	8.0	9.0	11.6	18.1	18.6	18.6	18.6	19.6	18.6	16.6	19.6
87.5°	0.0	1.5	1.5	4.5	5.0	4.5	5.0	6.5	5.0	4.0	3.5
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°	411.7	411.7	411.7	411.7	411.7	411.7	411.7	411.7	411.7	411.7	411.7
2.5°	425.3	424.2	421.7	420.7	417.7	415.7	414.7	413.7	412.2	410.2	408.7
5°	443.9	440.8	437.3	435.3	431.3	427.3	425.8	423.7	420.2	417.2	413.7
7.5°	463.5	459.9	455.9	451.4	447.4	442.8	440.8	438.8	433.8	429.8	424.7
10°	484.6	479.5	475.0	471.0	467.5	462.4	458.9	457.4	452.9	446.9	441.8
12.5°	504.7	499.1	494.6	489.6	486.1	482.1	478.5	477.0	473.5	468.0	464.0
15°	525.8	520.3	515.2	511.7	507.7	505.2	503.2	500.7	499.1	494.6	492.6
17.5°	548.4	543.4	538.9	535.8	534.3	533.8	533.3	532.3	530.8	527.8	526.3
20°	574.0	569.5	568.0	567.5	568.0	568.5	569.5	569.5	570.0	568.0	567.5
22.5°	598.7	598.7	601.2	604.2	607.2	609.2	610.7	608.7	609.2	612.2	614.8
25°	625.8	630.3	636.9	641.9	646.4	649.9	652.0	653.0	654.0	658.5	663.0
27.5°	655.0	662.0	671.6	678.1	686.6	692.2	696.2	695.7	697.2	703.2	711.3
30°	691.2	698.2	708.3	717.3	728.9	736.9	738.4	737.4	739.4	744.9	761.0
32.5°	741.9	743.4	750.0	759.0	771.6	779.6	781.1	783.7	788.2	798.2	817.8
35°	813.3	806.8	806.3	810.3	822.4	837.9	839.4	841.0	843.0	856.0	882.2
37.5°	909.8	883.2	867.1	854.5	856.0	861.6	864.6	865.6	870.6	890.7	935.0
40°	1031.0	981.2	945.5	909.8	896.7	897.8	898.8	897.8	907.8	939.0	996.8
42.5°	1163.7	1119.9	1057.6	983.7	946.5	934.4	936.0	937.0	952.5	997.8	1062.1
45°	1304.4	1276.3	1203.9	1088.3	1008.3	977.7	976.7	978.7	1004.3	1068.2	1136.0
47.5°	1428.1	1435.1	1381.8	1246.1	1108.9	1031.0	1024.4	1027.9	1069.7	1138.0	1206.9
50°	1526.1	1572.3	1568.3	1460.7	1271.7	1122.9	1099.8	1104.9	1154.1	1225.0	1286.8
52.5°	1600.0	1694.0	1754.3	1711.6	1547.2	1289.8	1230.0	1221.5	1283.3	1358.2	1396.4
55°	1649.2	1801.5	1959.9	2033.8	1966.9	1650.2	1493.9	1475.3	1542.2	1637.7	1654.3
57.5°	1681.9	1932.2	2273.0	2558.6	2649.5	2378.1	2182.1	2104.1	2152.9	2253.9	2232.3
60°	1627.6	1984.0	2651.0	3162.8	3421.6	3354.3	3136.1	3018.5	2927.5	2920.0	2799.8
62.5°	1419.5	1860.9	2804.4	3450.3	3814.2	3898.1	3859.4	3720.2	3468.4	3328.6	3057.2
65°	1070.7	1524.6	2695.3	3428.2	3769.5	3955.4	4081.6	3981.6	3599.6	3357.8	2996.9
67.5°	684.1	984.2	2241.9	3162.2	3482.9	3692.1	3944.4	3898.6	3410.6	3101.9	2709.3
70°	499.6	545.4	1521.1	2676.7	3029.5	3213.5	3560.4	3540.3	2990.8	2644.0	2254.9
72.5°	575.5	406.7	833.9	1999.6	2272.5	2417.3	2615.9	2567.1	2089.6	1848.8	1573.3
75°	648.9	454.9	470.0	1186.3	1269.7	1168.2	1195.3	1038.0	809.8	717.8	707.2
77.5°	546.4	570.5	426.3	509.7	469.5	338.3	253.3	198.6	155.3	166.9	185.5
80°	317.7	641.4	564.0	265.4	297.6	236.8	105.6	87.5	72.4	73.4	74.4
82.5°	98.0	400.6	793.7	324.2	294.6	333.8	97.0	59.3	47.8	53.8	60.8
85°	32.7	167.9	636.4	340.3	190.5	177.9	42.7	29.2	24.1	33.7	47.8
87.5°	8.0	40.7	118.1	44.7	28.1	17.1	14.6	10.6	11.6	21.1	29.7
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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CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	411.7	411.7	411.7	411.7	411.7	411.7	411.7	411.7	411.7	411.7	411.7
2.5°	407.7	406.2	404.6	403.6	402.1	402.1	400.6	400.6	398.6	397.6	397.6
5°	410.7	407.7	405.1	402.6	400.1	399.1	397.1	396.1	394.1	392.6	391.6
7.5°	420.7	416.7	413.7	410.7	407.7	406.2	404.1	402.1	401.6	400.6	399.6
10°	437.8	432.3	429.8	427.8	423.7	422.7	420.7	419.2	417.7	416.2	416.7
12.5°	459.9	455.9	454.9	450.9	449.9	448.4	445.4	444.4	440.3	437.3	435.8
15°	488.1	486.6	486.6	484.6	481.6	479.0	474.5	472.0	465.0	460.4	455.4
17.5°	525.3	523.8	524.3	522.3	518.7	514.2	509.2	501.7	491.1	483.1	473.0
20°	568.5	568.0	569.0	567.5	563.0	556.9	544.9	533.8	519.3	504.7	493.6
22.5°	616.8	619.3	620.3	616.3	611.2	598.7	585.6	569.5	549.9	530.8	515.2
25°	668.0	674.1	677.6	672.1	666.0	649.9	630.3	608.7	581.1	558.0	537.3
27.5°	718.3	730.9	735.9	732.9	723.3	700.7	674.6	645.9	612.2	581.6	554.9
30°	778.1	794.7	803.8	799.2	780.6	751.0	719.3	680.6	637.9	601.2	569.0
32.5°	841.0	861.6	868.1	858.5	831.4	794.2	753.0	705.7	657.5	615.3	579.1
35°	910.8	929.9	931.4	912.8	877.1	829.9	778.6	721.8	666.5	619.3	579.6
37.5°	971.6	990.7	989.2	961.6	918.4	859.6	794.2	725.3	661.0	607.2	564.0
40°	1035.5	1056.6	1045.0	1009.3	953.6	878.7	796.2	713.3	639.9	581.1	533.8
42.5°	1102.8	1111.9	1091.3	1046.5	974.7	878.2	779.1	684.6	606.7	541.4	491.6
45°	1164.7	1157.6	1128.0	1068.2	973.2	856.5	745.4	648.9	562.5	497.1	448.4
47.5°	1220.0	1197.8	1152.1	1068.2	949.5	818.3	702.2	602.7	516.7	450.9	402.6
50°	1279.8	1233.5	1162.2	1049.6	906.8	772.1	656.5	556.4	468.0	400.6	347.8
52.5°	1359.2	1276.3	1162.2	1015.9	862.6	725.3	608.2	502.7	411.2	340.8	288.5
55°	1545.2	1365.7	1182.3	997.3	823.4	676.1	550.9	433.3	344.3	277.0	233.7
57.5°	1910.6	1561.8	1283.3	1031.5	808.8	622.8	477.0	356.4	271.9	215.6	179.5
60°	2214.7	1720.1	1365.2	1057.6	785.2	553.9	386.5	272.9	202.1	159.3	135.7
62.5°	2293.1	1722.1	1331.6	989.7	689.7	450.9	285.0	188.0	138.7	115.6	103.0
65°	2097.1	1523.1	1132.5	807.3	525.3	313.2	178.4	114.1	92.5	84.4	79.4
67.5°	1762.8	1213.4	839.4	563.0	331.3	172.4	100.0	78.4	70.4	67.9	65.3
70°	1352.2	852.5	546.4	329.7	173.4	89.5	71.4	64.3	60.8	59.3	57.3
72.5°	833.4	503.7	297.1	158.3	86.5	68.4	63.8	61.3	56.8	54.8	52.8
75°	353.9	216.1	123.2	80.4	69.4	65.3	61.8	58.8	55.3	52.3	50.3
77.5°	119.1	82.4	72.9	70.4	69.4	65.3	60.8	56.8	53.3	49.8	47.8
80°	72.4	65.8	67.4	66.9	69.4	64.8	58.8	54.3	50.3	46.7	44.2
82.5°	62.8	62.3	63.8	65.3	68.9	62.3	55.3	48.8	43.7	40.2	37.7
85°	54.3	55.3	56.3	57.3	59.3	52.8	44.7	38.7	34.7	30.2	28.1
87.5°	36.2	39.2	41.2	41.7	40.2	25.1	14.6	17.1	17.6	15.1	13.6
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-F02-LED-E1-T2-7030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	411.7	411.7	411.7	411.7	411.7
2.5°	396.1	395.6	397.1	395.6	395.6
5°	391.1	390.6	390.6	390.6	389.6
7.5°	399.1	398.6	398.1	398.1	397.6
10°	414.7	414.2	414.2	413.7	413.7
12.5°	433.3	431.3	430.8	429.8	430.3
15°	451.4	445.9	444.4	442.8	441.3
17.5°	465.5	458.9	455.4	452.4	452.4
20°	483.1	474.5	470.0	465.5	465.5
22.5°	503.2	491.6	485.6	480.5	478.5
25°	519.8	505.2	496.6	490.6	489.1
27.5°	532.3	513.7	502.7	495.6	493.6
30°	542.4	521.3	508.2	500.7	497.6
32.5°	548.9	525.8	511.7	504.2	501.2
35°	545.4	520.8	503.7	494.6	492.6
37.5°	527.8	501.7	481.6	472.0	468.5
40°	495.6	467.5	446.4	434.8	432.8
42.5°	453.4	425.3	405.1	393.1	387.6
45°	408.2	379.0	359.9	348.8	342.3
47.5°	359.4	330.8	311.1	300.1	295.6
50°	308.1	280.5	263.9	251.8	247.3
52.5°	254.8	230.2	213.6	203.6	198.6
55°	204.1	184.0	169.9	163.4	159.8
57.5°	159.3	146.3	138.2	134.2	131.7
60°	123.7	117.1	114.1	111.1	111.6
62.5°	96.5	95.0	94.0	92.5	93.0
65°	77.9	76.9	77.4	76.9	77.4
67.5°	63.8	64.3	65.3	65.3	65.8
70°	56.3	56.8	57.8	57.8	57.8
72.5°	52.3	53.3	54.3	53.8	53.8
75°	49.3	51.8	53.8	51.8	49.8
77.5°	46.2	52.3	57.8	53.3	47.8
80°	42.2	55.3	61.8	53.8	45.7
82.5°	40.2	53.3	54.3	46.7	40.2
85°	37.2	60.3	62.8	42.7	30.7
87.5°	19.1	36.2	41.7	28.7	15.6
90°	0.0	0.0	0.0	0.0	0.0

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