

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: P141871

Luminaire Tested: **ECM-E02-LED-E1-T3-7050**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141871
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-T3-7050
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 3
Light Source: (42) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6025.8 lumens
Efficiency: N/A
Efficacy: 115.7 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

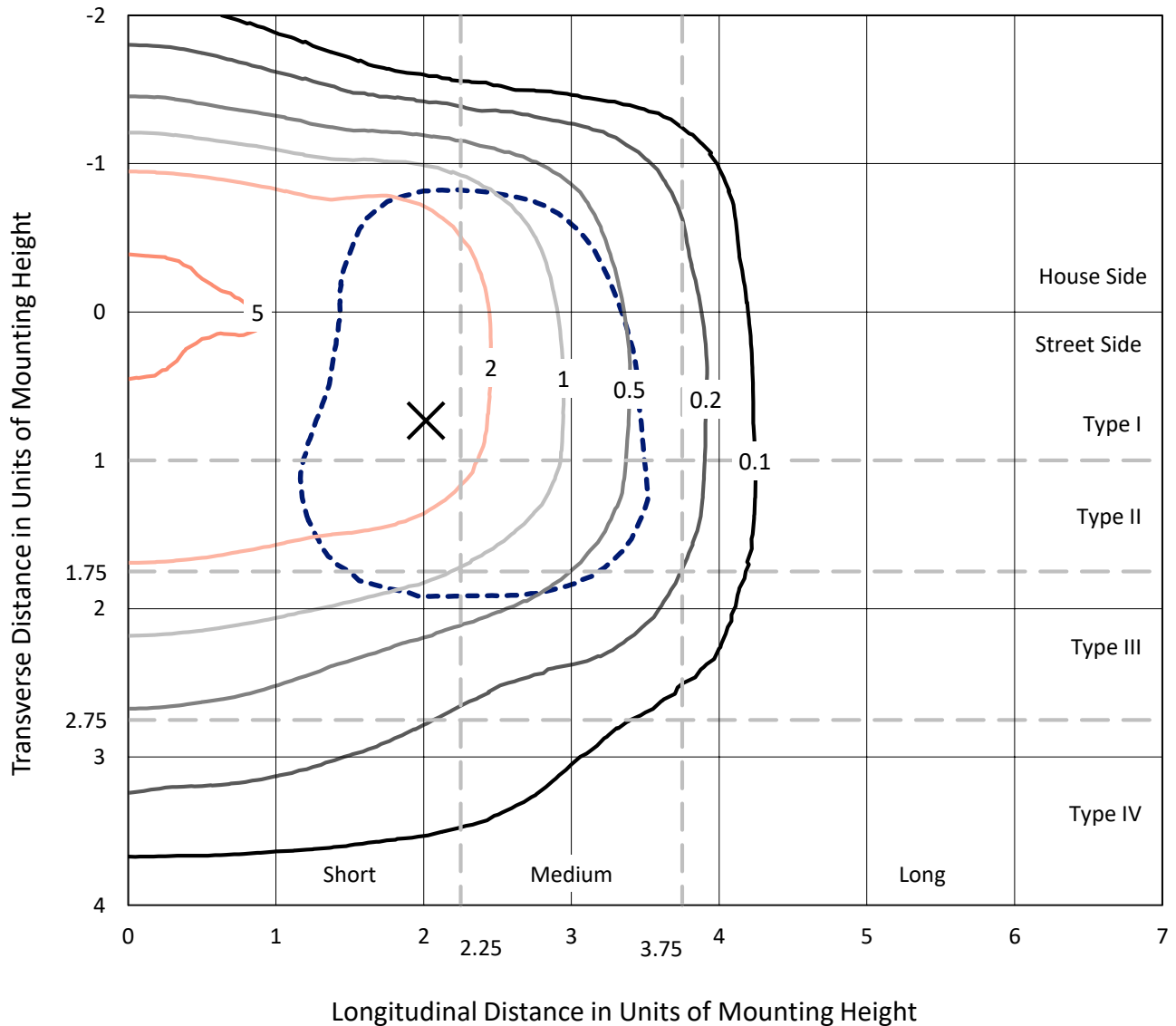
Input Watts (W): 52.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

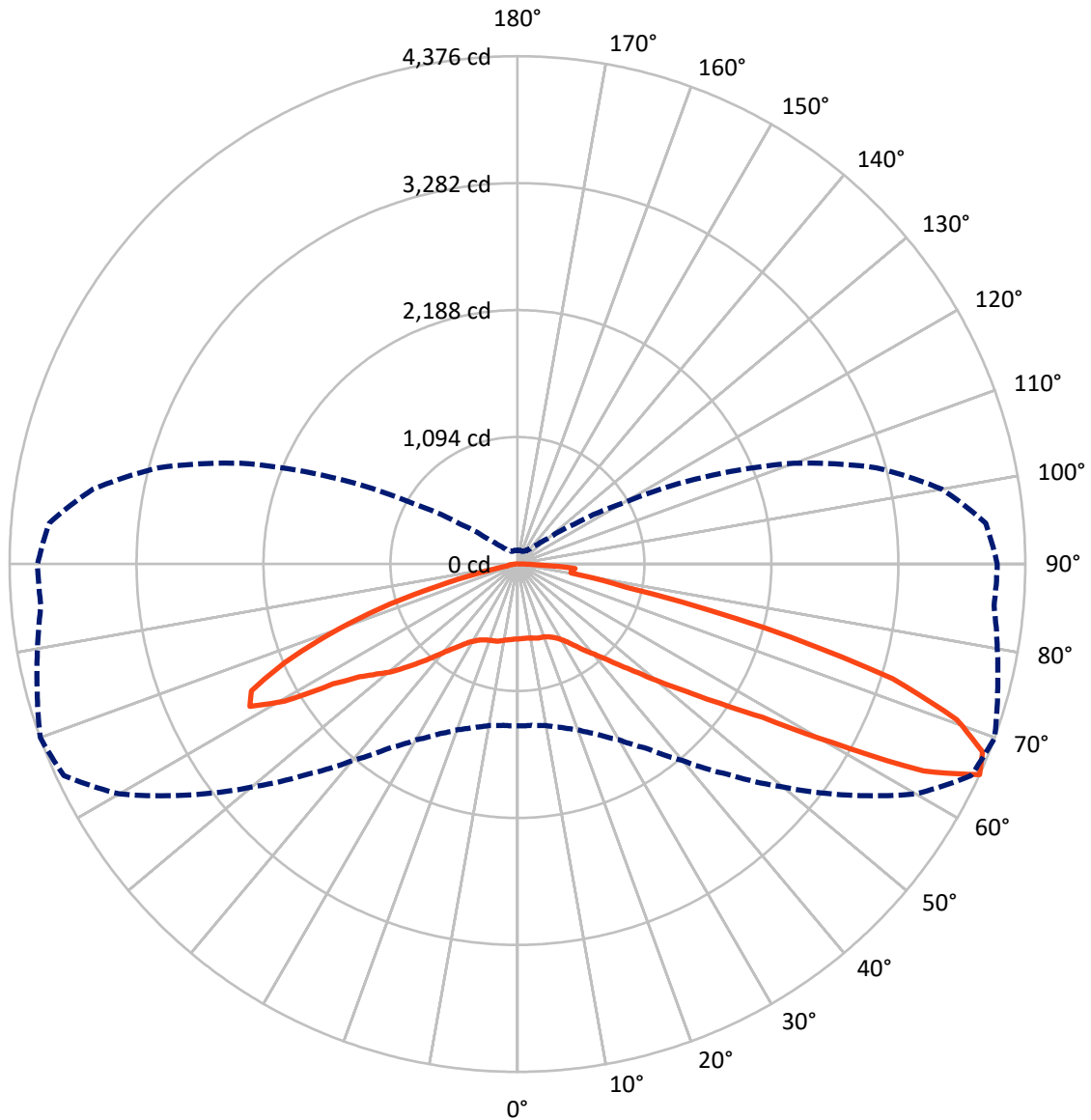
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.5 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	2034.1	0.0	2034.1
	% Fixture	33.8	0.0	33.8
Street Side	Lumens	3991.7	0.0	3991.7
	% Fixture	66.2	0.0	66.2
Total	Lumens	6025.8	0.0	6025.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.2	1.0
10°-20°	184.1	3.1
20°-30°	316.5	5.3
30°-40°	507.4	8.4
40°-50°	830.7	13.8
50°-60°	1300.2	21.6
60°-70°	1827.2	30.3
70°-80°	864.7	14.4
80°-90°	132.9	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°	6025.8	100.0
0°-180°	6025.8	100.0



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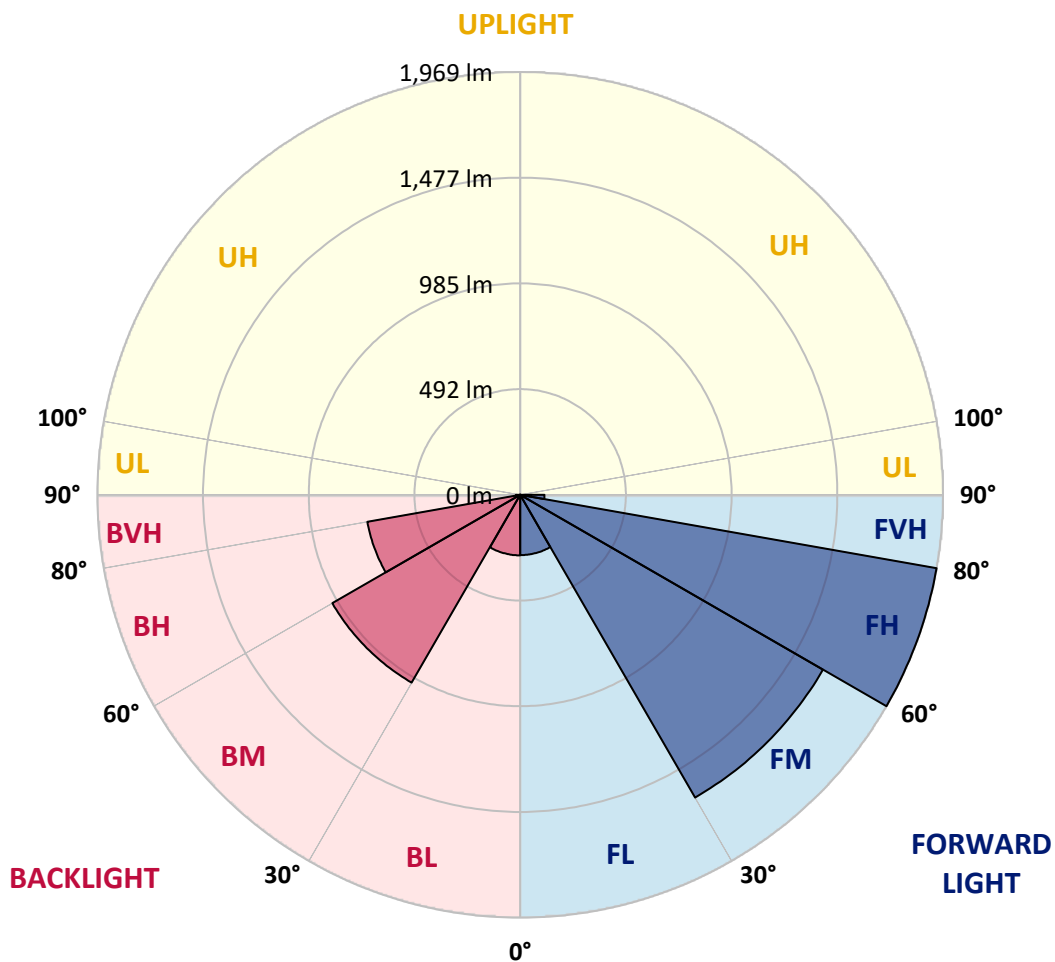
CATALOG NUMBER: ECM-E02-LED-E1-T3-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	280.7	4.7			
FM (30°-60°)	1628.3	27.0			
FH (60°-80°)	1969.4	32.7			G2/5000
FVH (80°-90°)	113.2	1.9			G2/225
BL (0°-30°)	282.1	4.7	B1/500		
BM (30°-60°)	1009.9	16.8	B2/2500		
BH (60°-80°)	722.6	12.0	B2/1000		G2/1000
BVH (80°-90°)	19.6	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°	645.8	645.8	645.8	645.8	645.8	645.8	645.8	645.8	645.8	645.8	645.8
2.5°	642.3	643.0	643.0	641.7	641.7	642.3	642.3	643.0	643.0	643.0	643.7
5°	642.3	643.0	643.0	642.3	641.7	643.0	642.3	643.0	643.0	643.0	643.0
7.5°	641.0	641.7	641.7	641.0	641.7	642.3	642.3	643.7	644.4	644.4	645.1
10°	634.1	634.8	635.5	635.5	636.9	638.9	639.6	642.3	643.0	645.1	646.4
12.5°	621.8	621.8	623.2	624.6	626.6	630.7	632.8	636.9	640.3	643.0	647.8
15°	610.9	610.9	612.2	612.9	617.0	619.8	623.9	628.7	634.8	640.3	647.8
17.5°	616.3	616.3	615.7	615.0	615.7	615.7	619.1	623.9	629.3	636.9	646.4
20°	637.6	636.9	634.1	632.8	632.1	629.3	627.3	626.6	629.3	634.8	644.4
22.5°	656.0	654.7	654.0	652.6	654.7	653.3	650.6	647.1	643.0	641.0	646.4
25°	667.0	667.7	667.7	667.7	671.8	673.1	674.5	670.4	665.6	658.8	659.4
27.5°	682.0	682.7	681.3	684.1	688.9	692.3	695.7	698.4	695.7	691.6	686.8
30°	714.2	714.2	712.1	714.2	718.3	721.7	726.5	731.3	731.3	727.2	722.4
32.5°	747.7	748.4	748.4	749.7	755.9	758.6	765.5	770.3	773.7	770.9	773.7
35°	788.0	787.4	789.4	790.1	799.7	803.1	816.8	820.2	825.7	827.0	829.1
37.5°	855.1	856.5	852.4	849.6	857.8	857.8	875.6	885.2	883.8	893.4	900.2
40°	963.2	957.0	955.0	953.6	958.4	957.7	957.0	970.0	976.2	977.5	981.0
42.5°	1082.9	1084.9	1082.9	1087.7	1087.7	1084.3	1081.5	1079.5	1091.1	1098.6	1100.0
45°	1223.1	1225.9	1221.7	1218.3	1227.2	1232.0	1232.0	1237.5	1247.1	1250.5	1248.4
47.5°	1335.3	1342.8	1339.4	1344.2	1358.6	1375.0	1396.9	1411.2	1421.5	1431.1	1446.1
50°	1436.5	1440.0	1448.2	1463.9	1485.1	1511.1	1546.7	1582.3	1602.8	1626.7	1644.5
52.5°	1498.1	1508.4	1520.7	1546.7	1582.3	1618.5	1673.2	1731.4	1783.4	1810.0	1831.3
55°	1535.1	1542.6	1559.0	1594.6	1644.5	1698.5	1767.0	1847.0	1916.1	1974.9	2020.7
57.5°	1533.7	1539.8	1562.4	1601.4	1660.9	1728.6	1814.2	1914.0	2016.0	2113.8	2200.0
60°	1504.3	1509.7	1532.3	1574.0	1639.0	1719.8	1822.4	1944.8	2083.0	2230.1	2381.2
62.5°	1459.1	1463.2	1483.1	1524.8	1590.5	1676.7	1797.1	1957.8	2154.1	2386.0	2679.5
65°	1395.5	1395.5	1414.0	1457.1	1520.0	1616.5	1749.2	1938.0	2209.5	2562.5	2989.4
67.5°	1301.8	1301.8	1316.8	1352.4	1401.7	1468.7	1601.4	1797.7	2084.4	2507.1	3006.5
70°	1124.6	1127.3	1127.3	1149.2	1171.1	1201.2	1264.2	1414.7	1683.5	2096.7	2587.8
72.5°	824.3	774.4	813.4	848.9	873.6	890.0	926.2	973.4	1108.9	1418.8	1863.4
75°	519.2	532.2	561.6	602.0	662.9	725.8	794.9	824.3	812.0	848.9	1147.9
77.5°	314.7	303.7	332.5	392.7	461.1	546.6	675.9	788.0	852.4	848.2	812.7
80°	136.1	132.7	151.9	180.6	214.1	291.4	409.8	563.7	734.7	833.9	818.8
82.5°	48.6	49.3	62.3	73.9	88.9	114.2	162.1	259.3	411.1	585.6	723.7
85°	14.4	15.7	21.9	30.8	34.9	39.7	54.7	81.4	138.9	221.6	394.0
87.5°	4.1	4.8	6.2	10.9	10.3	9.6	10.9	17.1	13.0	10.9	54.7
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	645.8	645.8	645.8	645.8	645.8	645.8	645.8	645.8	645.8	645.8	645.8
2.5°	643.0	643.0	643.0	643.7	643.0	643.0	643.7	643.7	644.4	645.1	646.4
5°	642.3	642.3	643.0	643.0	643.0	643.7	644.4	645.1	646.4	648.5	650.6
7.5°	644.4	644.4	643.7	644.4	644.4	645.1	646.4	647.1	649.9	651.9	655.3
10°	646.4	646.4	647.1	647.8	647.8	649.2	651.2	651.9	654.7	658.8	662.2
12.5°	649.2	651.2	654.0	655.3	656.7	658.1	660.1	661.5	664.9	670.4	674.5
15°	651.2	656.0	658.8	662.2	664.2	664.9	667.0	669.7	673.1	678.6	683.4
17.5°	651.2	657.4	661.5	664.9	668.3	670.4	672.4	675.2	680.0	685.4	690.2
20°	650.6	659.4	664.9	670.4	676.5	678.6	682.0	684.8	690.2	697.1	700.5
22.5°	654.0	664.2	671.8	681.3	688.2	693.6	697.8	702.5	706.6	711.4	712.8
25°	664.2	674.5	686.8	698.4	708.0	716.2	721.7	725.8	730.6	732.6	729.9
27.5°	681.3	688.9	706.0	723.1	738.1	748.4	754.5	760.0	761.4	765.5	755.2
30°	712.1	715.5	733.3	757.9	775.1	792.2	800.4	805.8	806.5	803.8	786.0
32.5°	762.7	756.6	772.3	805.2	831.1	845.5	858.5	861.9	859.9	851.0	822.3
35°	824.3	814.7	822.3	870.1	898.9	920.1	932.4	935.8	931.0	915.3	875.6
37.5°	900.2	896.8	900.2	946.1	996.0	1015.8	1021.3	1025.4	1013.8	985.1	933.1
40°	984.4	985.1	981.0	1022.7	1085.6	1114.4	1127.3	1118.5	1104.1	1063.0	1005.6
42.5°	1100.7	1096.6	1082.2	1119.8	1200.5	1230.0	1241.6	1234.7	1220.4	1168.4	1101.4
45°	1254.6	1240.9	1227.2	1247.1	1325.0	1363.4	1380.5	1375.7	1350.4	1287.4	1224.5
47.5°	1442.7	1428.3	1403.0	1399.6	1478.3	1523.4	1529.6	1522.1	1502.9	1440.0	1362.7
50°	1640.4	1636.3	1624.7	1597.3	1667.8	1712.9	1708.8	1703.3	1682.1	1602.1	1522.7
52.5°	1844.9	1853.1	1845.6	1826.5	1901.7	1920.2	1921.6	1905.1	1880.5	1806.6	1698.5
55°	2059.7	2090.5	2102.1	2117.2	2176.7	2174.0	2158.2	2119.2	2125.4	2041.3	1891.5
57.5°	2287.5	2381.9	2456.5	2490.0	2546.8	2563.2	2523.5	2536.5	2531.1	2444.2	2208.2
60°	2587.8	2813.6	3007.9	3127.6	3204.2	3174.8	3230.2	3232.9	3326.6	3135.8	2767.7
62.5°	3066.7	3481.2	3826.0	3929.3	3949.1	3942.3	3876.6	3942.3	3924.5	3691.9	3215.1
65°	3469.6	3962.8	4313.1	4376.0	4283.6	4198.8	4122.2	4135.2	4050.4	3713.8	3202.1
67.5°	3524.3	4015.5	4340.4	4322.6	4120.8	3963.5	3836.3	3736.4	3563.3	3258.9	2812.9
70°	3091.3	3611.9	4030.5	4016.9	3736.4	3526.4	3319.8	3169.3	2992.8	2757.5	2335.4
72.5°	2404.5	2868.3	3274.0	3379.3	3102.9	2871.0	2681.6	2490.0	2308.1	2084.4	1818.3
75°	1637.0	1985.9	2174.7	2203.4	1950.3	1776.5	1703.3	1546.7	1353.8	1305.9	1108.9
77.5°	950.9	1084.9	1027.5	950.9	765.5	562.3	429.6	367.3	368.7	423.4	405.7
80°	773.0	736.1	580.8	465.9	316.7	161.4	108.1	93.0	93.7	108.8	105.3
82.5°	796.9	818.1	672.4	470.6	324.2	171.0	82.1	60.9	71.1	77.3	75.9
85°	590.4	773.7	693.6	499.4	348.2	182.0	53.4	33.5	47.2	57.5	61.6
87.5°	165.5	259.9	201.8	133.4	97.1	32.8	21.2	17.8	21.9	30.1	30.1
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°	645.8	645.8	645.8	645.8	645.8	645.8	645.8	645.8	645.8	645.8	645.8
2.5°	647.1	649.9	649.2	650.6	651.2	653.3	654.7	654.0	654.0	655.3	656.7
5°	652.6	656.0	656.0	658.1	660.1	662.9	664.9	663.5	664.2	665.6	667.0
7.5°	658.1	662.2	662.9	664.9	666.3	667.7	669.0	667.0	666.3	666.3	665.6
10°	664.9	669.0	668.3	668.3	667.7	666.3	663.5	658.8	655.3	653.3	651.9
12.5°	676.5	679.3	675.2	671.1	664.2	659.4	653.3	647.8	643.7	640.3	638.9
15°	686.8	685.4	680.6	673.1	663.5	656.0	649.9	642.3	637.6	633.4	631.4
17.5°	692.3	687.5	680.6	673.8	665.6	658.8	651.2	642.3	634.8	629.3	626.6
20°	697.8	690.2	681.3	674.5	668.3	662.9	657.4	646.4	636.9	628.7	624.6
22.5°	706.0	695.7	686.8	680.6	674.5	669.0	663.5	653.3	643.0	632.1	625.9
25°	717.6	703.9	697.8	691.6	684.8	679.3	671.8	662.2	651.2	638.2	629.3
27.5°	736.1	723.7	716.9	710.7	702.5	693.6	685.4	672.4	662.2	647.1	635.5
30°	762.7	749.7	743.6	737.4	727.9	716.2	704.6	688.2	673.8	656.7	641.7
32.5°	796.3	789.4	781.9	771.6	758.6	744.3	727.2	705.3	684.8	663.5	644.4
35°	848.2	836.6	824.3	814.0	794.9	775.1	749.1	716.9	689.5	663.5	640.3
37.5°	907.8	895.4	879.0	860.6	831.8	800.4	764.1	723.7	687.5	656.0	630.0
40°	979.6	963.9	942.0	907.1	864.7	817.5	768.9	718.3	675.9	639.6	609.5
42.5°	1074.7	1042.5	1000.1	948.8	888.6	824.3	762.7	703.9	656.0	616.3	586.2
45°	1182.1	1130.8	1062.4	985.7	902.3	821.6	749.1	680.6	626.6	582.8	551.4
47.5°	1297.7	1217.6	1117.1	1009.0	903.7	806.5	722.4	645.8	584.9	538.4	499.4
50°	1428.3	1296.3	1155.4	1020.6	894.8	779.8	684.1	595.8	532.9	477.5	441.9
52.5°	1540.5	1365.4	1182.1	1015.8	863.3	733.3	621.1	535.6	461.7	412.5	377.6
55°	1673.2	1432.4	1196.4	991.9	812.7	660.8	553.4	458.3	388.6	344.8	314.7
57.5°	1896.9	1546.0	1208.8	943.3	729.2	569.8	459.7	370.8	316.0	277.7	256.5
60°	2328.6	1766.3	1259.4	870.8	623.2	460.4	355.0	290.0	242.8	217.5	202.5
62.5°	2611.1	1916.1	1236.8	759.3	487.1	344.8	259.9	209.3	182.0	163.5	156.7
65°	2539.3	1764.9	1049.4	602.0	339.3	229.2	174.4	143.7	131.3	121.8	117.7
67.5°	2180.8	1423.6	760.7	389.2	214.8	139.6	114.2	101.9	96.5	92.3	91.7
70°	1737.5	1003.5	452.2	206.6	119.0	92.3	81.4	76.6	74.6	74.6	74.6
72.5°	1260.7	578.0	222.3	111.5	80.0	70.5	65.7	64.3	63.6	63.6	64.3
75°	720.3	250.4	114.2	76.6	65.7	60.9	58.1	58.1	58.1	58.1	58.8
77.5°	251.1	114.2	80.7	64.3	56.8	54.0	52.7	54.0	54.7	54.7	54.7
80°	91.7	80.7	69.1	56.1	50.6	47.9	47.9	49.9	51.3	49.9	49.3
82.5°	72.5	63.6	56.1	48.6	44.5	43.1	43.8	45.1	44.5	43.8	41.7
85°	55.4	41.7	39.0	36.3	35.6	35.6	38.3	39.0	36.3	34.9	32.8
87.5°	27.4	21.9	19.8	23.3	22.6	20.5	21.2	21.2	17.8	16.4	17.1
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-T3-7050

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	645.8	645.8	645.8	645.8
2.5°	656.7	657.4	659.4	658.8
5°	666.3	667.0	668.3	668.3
7.5°	664.2	664.9	664.9	664.9
10°	648.5	648.5	649.9	649.9
12.5°	636.2	635.5	635.5	634.1
15°	628.7	627.3	628.0	625.9
17.5°	623.2	622.5	622.5	621.1
20°	621.1	619.8	619.1	617.7
22.5°	619.8	619.1	617.7	616.3
25°	623.2	619.8	619.1	617.7
27.5°	626.6	623.2	620.5	619.8
30°	630.0	623.9	620.5	619.1
32.5°	629.3	621.1	616.3	614.3
35°	621.8	611.6	605.4	603.4
37.5°	607.5	595.8	586.2	582.8
40°	586.9	571.9	563.0	558.2
42.5°	562.3	545.2	537.7	533.6
45°	521.9	508.3	499.4	496.0
47.5°	476.8	458.3	450.1	446.7
50°	418.7	403.6	396.8	392.0
52.5°	357.1	343.4	337.2	334.5
55°	297.6	290.7	281.2	279.1
57.5°	241.5	239.4	232.6	231.9
60°	196.3	192.9	188.1	188.1
62.5°	154.6	151.2	149.1	149.1
65°	119.0	118.3	117.0	116.3
67.5°	91.7	93.7	94.4	93.0
70°	76.6	77.3	77.3	77.3
72.5°	66.4	66.4	66.4	65.7
75°	60.2	60.2	58.8	58.1
77.5°	55.4	54.7	55.4	54.7
80°	48.6	47.9	46.5	45.1
82.5°	40.4	39.7	36.3	36.3
85°	31.5	29.4	26.7	23.9
87.5°	17.8	15.7	11.6	8.2
90°	0.0	0.0	0.0	0.0

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