

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: P141228

Luminaire Tested: **ECM-E02-LED-E1-SL4-8030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141228
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33692)
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-SL4-8030
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (42) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4766 lumens
Efficiency: N/A
Efficacy: 91.5 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

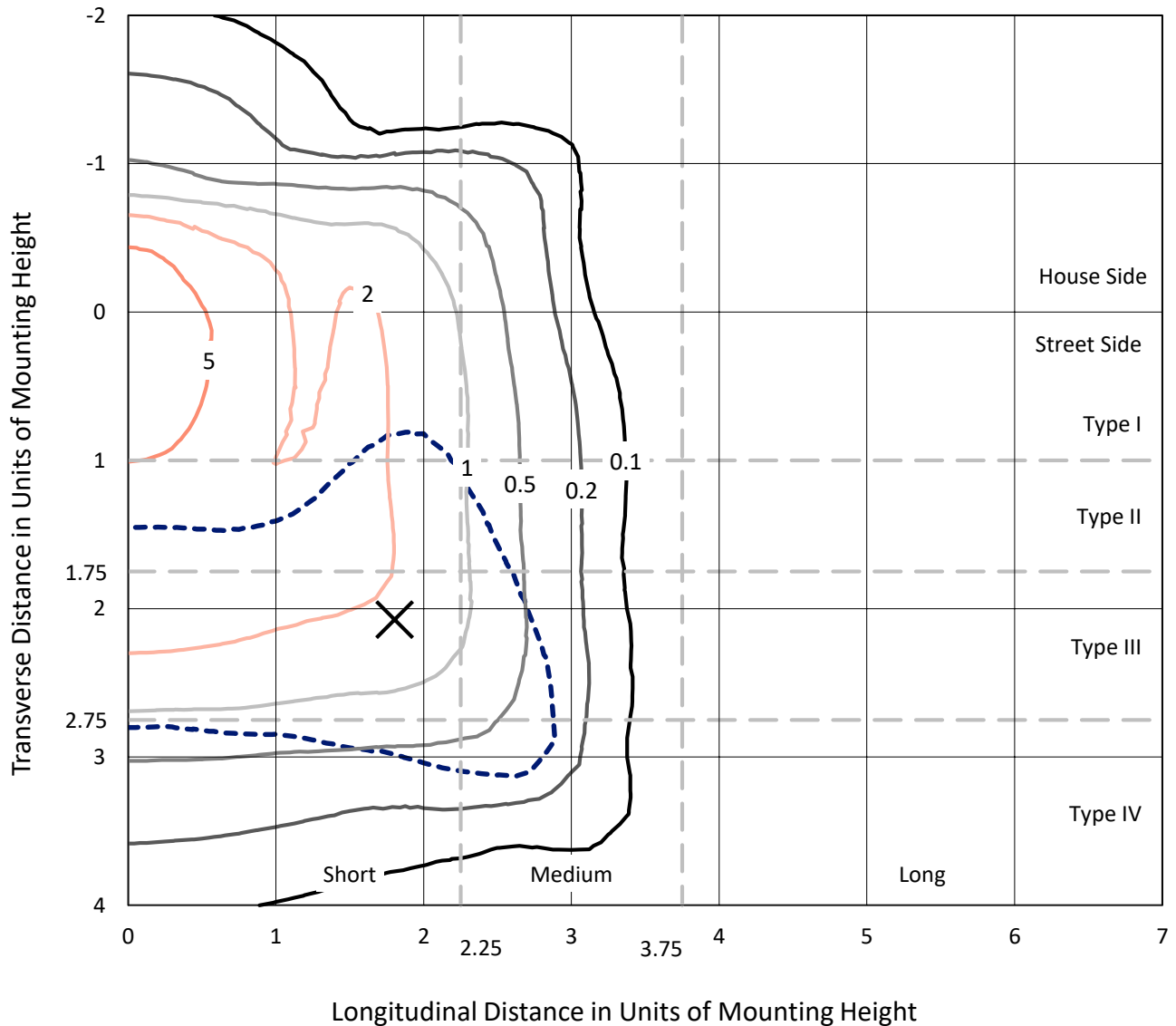
Input Watts (W): 52.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

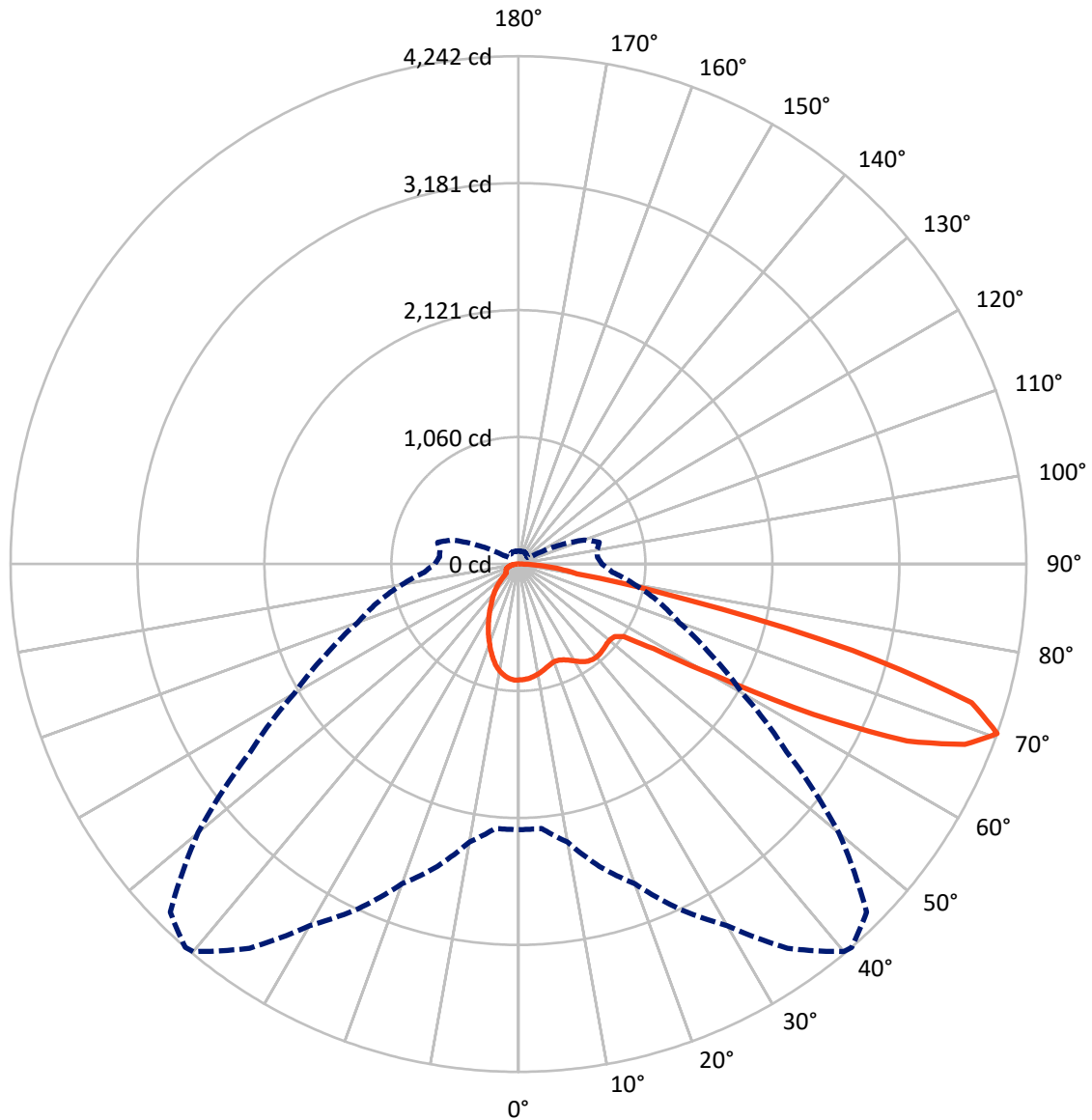
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.7 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 41-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1022.6	0.0	1022.6
	% Fixture	21.5	0.0	21.5
Street Side	Lumens	3743.4	0.0	3743.4
	% Fixture	78.5	0.0	78.5
Total	Lumens	4766.0	0.0	4766.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.1	1.9
10°-20°	241.5	5.1
20°-30°	349.2	7.3
30°-40°	444.4	9.3
40°-50°	523.7	11.0
50°-60°	801.4	16.8
60°-70°	1489.4	31.3
70°-80°	718.9	15.1
80°-90°	107.4	2.3
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°	4766.0	100.0
0°-180°	4766.0	100.0



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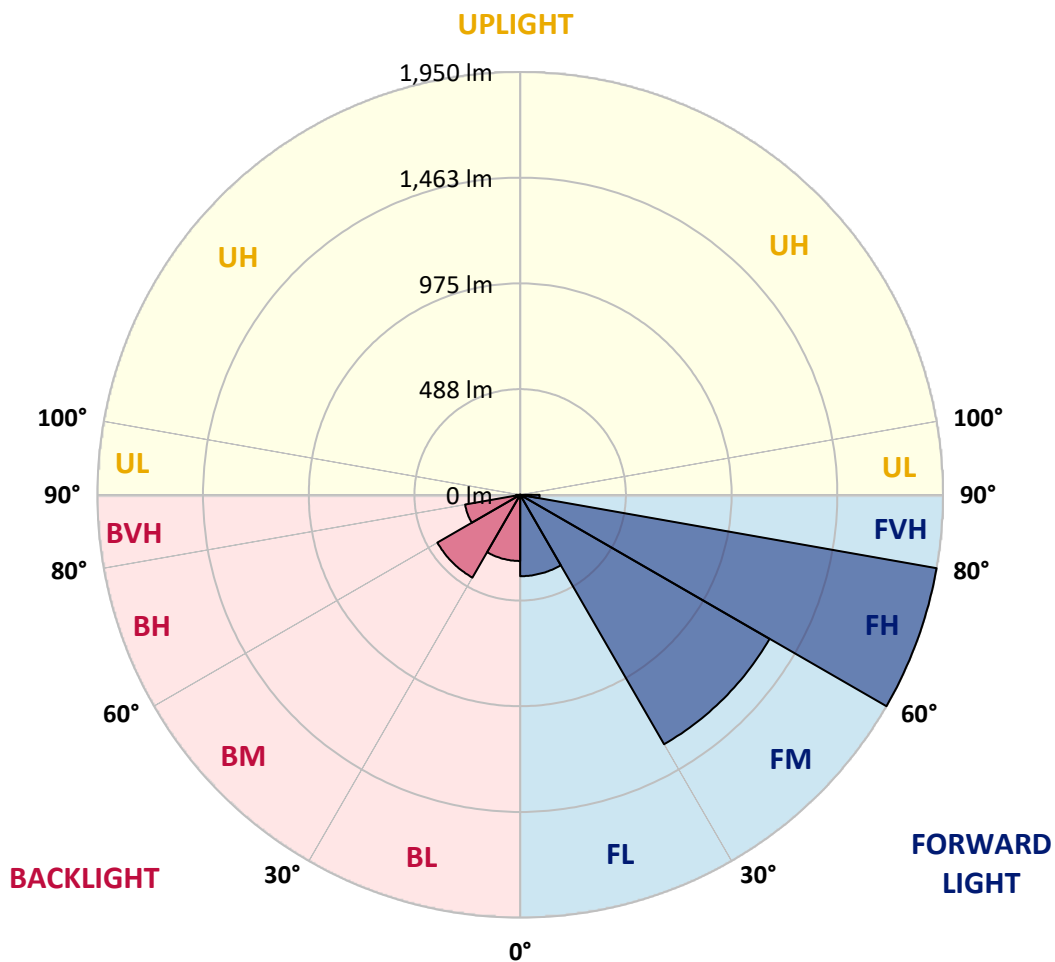
CATALOG NUMBER: ECM-E02-LED-E1-SL4-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	375.4	7.9			
FM (30°-60°)	1328.4	27.9			
FH (60°-80°)	1950.4	40.9			G2/5000
FVH (80°-90°)	89.2	1.9			G1/100
BL (0°-30°)	305.4	6.4	B1/500		
BM (30°-60°)	441.2	9.3	B1/1000		
BH (60°-80°)	257.8	5.4	B1/500		G1/500
BVH (80°-90°)	18.1	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	41°	45°
0°	968.3	968.3	968.3	968.3	968.3	968.3	968.3	968.3	968.3	968.3	968.3
2.5°	968.3	969.5	968.9	967.8	966.7	967.2	966.7	966.1	966.1	965.5	965.0
5°	963.8	966.1	964.4	963.3	961.6	961.6	961.0	959.9	958.8	958.2	957.1
7.5°	954.3	956.5	955.4	954.3	952.6	951.5	949.2	948.1	947.0	946.4	944.7
10°	941.3	942.5	941.3	939.1	938.0	937.4	936.3	934.0	931.8	930.6	929.0
12.5°	924.5	925.0	923.9	922.8	921.1	921.1	919.4	917.7	914.3	913.2	909.3
15°	909.8	908.1	907.0	906.4	905.9	903.1	903.6	900.8	895.2	893.5	889.0
17.5°	905.9	904.2	903.6	901.9	900.8	897.4	894.1	888.4	878.9	877.2	870.4
20°	917.1	917.1	915.4	914.3	912.6	906.4	899.1	888.4	871.0	867.1	858.6
22.5°	944.1	941.3	940.2	940.2	939.6	930.6	917.1	900.3	877.2	872.1	857.5
25°	986.3	981.3	983.0	982.4	981.3	968.3	948.6	924.5	892.9	886.2	867.1
27.5°	1036.4	1037.5	1037.0	1034.7	1031.4	1017.3	989.2	956.5	917.1	910.4	885.6
30°	1088.7	1089.9	1093.2	1091.6	1089.3	1067.9	1033.0	997.6	949.8	940.8	910.4
32.5°	1149.5	1153.5	1156.3	1156.8	1147.8	1118.6	1077.5	1032.5	981.8	972.8	935.1
35°	1219.8	1217.6	1222.7	1220.4	1204.7	1164.7	1114.1	1060.6	1008.9	997.0	956.5
37.5°	1290.7	1293.6	1288.5	1278.9	1254.2	1201.8	1139.4	1079.2	1021.8	1010.5	968.3
40°	1359.4	1357.7	1345.9	1329.6	1292.4	1225.5	1153.5	1087.6	1026.3	1014.5	971.2
42.5°	1410.6	1406.1	1388.1	1361.6	1313.8	1236.7	1157.4	1087.6	1023.5	1011.1	967.2
45°	1433.1	1428.6	1411.2	1377.4	1320.6	1234.5	1150.6	1078.1	1013.9	1003.2	959.3
47.5°	1433.1	1431.4	1412.3	1379.6	1318.9	1228.3	1140.5	1066.2	1004.3	993.7	952.6
50°	1421.8	1420.7	1403.8	1371.8	1313.2	1224.9	1137.7	1064.0	1003.8	993.1	955.4
52.5°	1459.5	1452.2	1434.8	1397.6	1334.1	1239.0	1151.8	1075.2	1017.3	1006.6	967.8
55°	1918.1	1911.9	1823.6	1668.3	1505.7	1357.1	1230.0	1142.2	1083.7	1067.4	1039.2
57.5°	2659.7	2650.7	2560.1	2418.9	2139.2	1821.3	1572.1	1425.8	1343.6	1331.8	1314.9
60°	2960.7	2957.3	2919.1	2861.7	2755.9	2591.6	2359.8	2116.7	1927.7	1897.3	1899.5
62.5°	3133.5	3125.0	3106.4	3092.4	3056.4	2989.4	2946.1	2878.0	2786.3	2765.5	2633.8
65°	3230.2	3229.1	3239.2	3251.1	3248.8	3269.1	3291.0	3421.0	3573.5	3566.7	3427.7
67.5°	3086.2	3095.8	3148.6	3229.7	3314.6	3404.7	3572.3	3832.8	4021.3	4021.3	3899.2
70°	2218.6	2216.9	2357.5	2614.1	2842.6	3179.0	3487.9	3917.2	4225.6	4241.9	4112.5
72.5°	1329.6	1360.5	1447.2	1563.6	1757.8	2165.1	2739.6	3511.0	3941.4	3958.9	3804.1
75°	934.0	910.9	907.6	914.3	947.5	1047.7	1363.9	2155.0	2857.2	2884.2	2734.5
77.5°	597.5	592.5	594.7	602.0	603.7	613.3	628.5	738.8	1324.5	1453.9	1447.2
80°	515.4	513.7	514.3	505.8	489.5	483.3	502.5	487.3	473.2	492.9	465.9
82.5°	345.5	351.7	361.8	375.3	407.9	419.2	413.0	410.2	365.7	355.6	315.7
85°	256.0	252.6	256.6	256.6	248.1	239.7	245.9	239.7	212.1	198.6	175.6
87.5°	138.4	139.0	150.2	154.7	154.2	131.7	108.6	94.0	85.0	78.8	66.4
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-SL4-8030

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	968.3	968.3	968.3	968.3	968.3	968.3	968.3	968.3	968.3	968.3	968.3
2.5°	965.5	963.8	964.4	964.4	963.8	965.0	963.3	962.7	963.3	963.3	963.3
5°	956.0	953.7	953.7	953.1	952.0	952.0	949.8	949.2	948.1	949.8	948.6
7.5°	942.5	939.1	936.3	934.0	932.9	931.2	928.4	927.3	926.1	925.6	924.5
10°	926.1	922.2	916.6	912.1	909.8	905.3	901.9	897.4	897.4	895.2	892.9
12.5°	906.4	900.8	895.2	889.0	885.1	878.9	873.2	868.2	864.2	859.2	855.8
15°	886.8	878.3	872.1	865.9	858.6	850.2	843.4	835.6	828.2	820.4	818.1
17.5°	865.4	858.6	853.0	845.7	837.8	827.7	818.7	805.7	796.7	787.2	779.8
20°	851.3	843.4	837.2	830.5	822.0	810.2	798.4	783.8	770.3	756.2	745.5
22.5°	844.0	831.0	825.4	819.2	810.8	797.9	784.3	766.3	749.5	730.9	714.0
25°	846.8	829.4	818.1	811.4	804.0	791.1	773.7	753.4	734.3	710.6	691.5
27.5°	859.2	835.6	818.1	806.9	799.0	785.5	767.5	744.4	721.3	696.6	673.5
30°	875.5	845.7	823.2	806.9	795.0	780.4	760.7	736.0	710.6	683.1	656.6
32.5°	894.1	857.5	830.5	808.0	788.9	770.3	750.0	724.1	697.7	668.4	642.6
35°	908.7	866.5	835.6	805.7	780.4	757.3	733.7	709.5	683.1	655.5	627.9
37.5°	917.1	872.1	835.6	797.9	766.9	742.7	718.0	694.3	669.0	642.0	617.8
40°	920.5	874.4	832.2	788.9	752.8	725.3	702.2	678.0	655.5	631.9	610.5
42.5°	918.8	872.7	827.7	780.4	741.6	711.8	686.4	663.9	645.4	625.7	607.7
45°	912.1	867.1	823.2	776.5	737.6	707.3	681.4	660.0	642.6	624.6	610.5
47.5°	906.4	864.8	826.0	786.0	748.9	718.0	689.8	666.2	651.6	637.5	628.5
50°	910.9	871.0	832.2	794.5	758.5	727.0	698.3	676.3	667.9	665.6	662.8
52.5°	923.3	883.9	851.3	824.9	808.5	796.7	767.5	762.4	755.1	751.2	741.6
55°	1003.8	987.5	1016.7	1048.8	1054.4	1089.9	1103.9	1105.1	1092.7	1048.8	946.4
57.5°	1331.3	1371.8	1384.1	1458.4	1478.7	1462.9	1441.5	1440.4	1402.2	1344.2	1195.1
60°	1916.4	1895.0	1868.6	1820.2	1774.6	1725.7	1658.2	1606.4	1557.4	1468.5	1311.6
62.5°	2528.6	2342.4	2206.8	2067.8	1955.2	1856.8	1758.9	1675.6	1596.3	1473.0	1304.8
65°	3059.7	2680.5	2405.4	2196.6	2022.2	1878.2	1748.2	1634.5	1534.4	1380.2	1209.7
67.5°	3405.2	2860.0	2448.7	2137.0	1890.5	1707.1	1515.8	1336.3	1237.9	1113.5	1026.9
70°	3493.6	2733.4	2159.5	1760.0	1428.0	1209.2	983.5	787.7	697.1	662.3	665.1
72.5°	3151.5	2160.6	1531.0	1119.7	876.6	694.9	564.9	434.4	339.3	284.7	278.0
75°	2058.8	1202.4	727.0	506.4	402.9	320.7	252.6	212.7	183.4	148.0	123.8
77.5°	778.2	458.0	326.3	266.1	196.9	137.3	106.9	90.0	82.7	80.5	72.6
80°	398.9	317.9	227.3	149.7	104.7	83.8	70.3	59.6	55.1	52.9	54.0
82.5°	269.0	200.3	125.5	90.0	72.6	62.5	49.5	41.6	37.1	36.6	39.4
85°	149.7	100.2	73.1	60.8	53.5	46.7	37.7	30.9	28.7	30.4	35.4
87.5°	46.7	46.1	33.2	27.0	28.1	24.2	18.0	13.5	13.5	17.4	24.8
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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CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	968.3	968.3	968.3	968.3	968.3	968.3	968.3	968.3	968.3	968.3	968.3
2.5°	963.3	964.4	966.7	965.0	965.5	966.1	967.8	970.0	968.3	967.2	970.6
5°	949.8	949.8	952.6	951.5	953.7	956.0	957.1	961.0	959.9	958.8	963.3
7.5°	925.0	925.6	929.5	928.4	932.9	933.5	938.0	941.3	941.3	943.6	947.5
10°	893.5	893.5	896.9	897.4	900.3	902.5	907.6	913.8	914.9	918.8	924.5
12.5°	858.1	856.9	859.7	859.7	862.0	864.8	870.4	877.8	878.9	885.1	892.4
15°	814.2	812.5	811.4	812.5	813.6	814.2	822.6	829.9	834.4	841.2	848.5
17.5°	772.0	765.8	763.0	763.0	763.5	763.5	766.9	775.3	781.5	792.2	802.9
20°	734.3	723.6	719.6	710.6	709.0	705.0	707.8	717.4	728.6	737.1	745.5
22.5°	698.8	687.6	676.3	665.6	657.2	652.1	657.2	663.4	667.3	674.1	676.3
25°	671.8	653.2	637.5	620.6	611.6	607.1	606.5	606.0	602.6	601.5	601.5
27.5°	650.4	628.5	604.9	586.3	573.9	565.5	555.9	549.2	540.7	529.5	523.8
30°	632.4	608.8	582.9	561.0	545.2	528.9	509.2	494.0	478.8	465.3	453.5
32.5°	616.1	591.9	566.6	543.5	516.5	488.4	463.6	445.6	419.2	401.2	386.0
35°	603.7	579.5	555.9	525.5	488.4	452.4	420.3	393.9	366.9	343.2	323.0
37.5°	594.7	574.5	549.2	508.1	461.4	418.1	384.3	352.8	320.7	288.6	263.3
40°	591.9	574.5	542.4	489.0	435.5	388.8	350.0	311.2	275.7	241.4	215.5
42.5°	593.6	575.0	531.7	472.1	414.1	363.5	319.6	274.6	232.4	195.8	169.9
45°	599.8	575.0	520.5	453.5	394.4	340.4	288.1	234.6	185.7	156.4	145.2
47.5°	618.4	579.0	511.5	440.0	377.0	315.1	252.6	191.9	150.2	137.9	137.9
50°	647.1	590.8	510.3	429.9	357.3	285.8	208.7	151.4	132.8	132.2	135.6
52.5°	696.0	611.6	516.0	423.1	336.5	246.4	162.6	130.5	126.6	130.0	135.0
55°	791.1	648.2	523.8	410.7	301.6	193.0	133.4	123.8	125.5	129.4	133.9
57.5°	965.0	721.9	532.3	384.3	244.2	146.3	121.0	121.5	124.3	128.3	132.2
60°	1084.8	813.0	549.2	339.8	181.7	121.0	115.9	120.4	123.8	126.6	130.0
62.5°	1094.9	846.2	561.5	289.8	135.0	110.3	111.4	118.2	122.7	123.8	125.5
65°	1034.2	803.5	526.1	239.1	112.0	104.7	108.6	114.8	119.3	119.8	121.5
67.5°	901.4	714.0	449.0	181.7	102.4	100.7	105.2	109.2	112.5	115.3	117.6
70°	698.3	582.9	361.2	141.2	95.1	94.5	98.5	103.0	106.3	109.2	112.5
72.5°	368.0	414.1	269.0	113.1	87.2	87.8	91.7	95.7	97.9	100.7	104.1
75°	114.2	175.6	166.0	90.6	77.6	79.9	82.1	85.5	89.5	91.2	92.8
77.5°	67.5	71.5	86.6	70.9	67.5	69.2	72.0	74.8	77.6	79.9	81.6
80°	54.6	55.7	56.3	56.3	56.3	58.5	60.8	64.7	67.0	68.1	68.6
82.5°	42.8	45.6	46.1	45.0	46.7	49.0	50.1	52.3	52.9	54.0	55.1
85°	35.4	34.9	36.0	36.6	34.3	34.3	33.2	33.2	35.4	39.4	39.9
87.5°	27.6	24.2	19.7	18.6	17.4	16.3	15.2	15.2	15.8	18.0	19.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P141228

CATALOG NUMBER: ECM-E02-LED-E1-SL4-8030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	968.3	968.3	968.3	968.3	968.3
2.5°	970.6	970.0	971.2	972.8	971.7
5°	963.8	963.8	966.1	967.8	966.7
7.5°	950.3	950.9	954.3	956.5	955.4
10°	929.0	930.1	934.0	937.4	939.1
12.5°	896.9	900.8	905.9	909.3	909.3
15°	856.4	862.6	868.2	873.2	870.4
17.5°	810.2	817.5	824.9	827.7	824.9
20°	754.5	755.1	759.6	762.4	761.3
22.5°	678.6	676.3	678.6	679.7	681.4
25°	600.9	597.0	594.7	598.1	599.8
27.5°	521.6	516.0	517.6	513.7	509.2
30°	444.5	439.4	433.2	431.6	434.4
32.5°	376.4	363.5	358.4	348.8	352.8
35°	304.4	291.5	279.1	275.7	273.5
37.5°	245.3	229.6	214.4	209.3	208.2
40°	191.9	178.9	168.8	166.0	164.9
42.5°	155.9	150.2	148.5	148.5	149.1
45°	142.4	142.9	144.6	145.7	146.3
47.5°	139.5	141.8	144.0	146.3	146.9
50°	139.5	141.2	142.9	145.2	145.7
52.5°	138.4	140.1	140.7	141.8	142.9
55°	137.3	137.9	137.9	138.4	139.5
57.5°	134.5	135.0	133.9	134.5	136.7
60°	131.7	132.2	131.1	132.2	132.8
62.5°	127.7	127.7	127.2	127.7	128.3
65°	123.2	121.5	122.7	122.1	122.7
67.5°	117.6	115.3	114.8	114.8	115.3
70°	109.7	108.0	107.5	108.6	109.7
72.5°	100.2	101.3	103.0	104.7	107.5
75°	93.4	95.1	97.3	103.0	106.9
77.5°	83.8	83.3	85.5	91.7	97.3
80°	69.8	70.3	69.8	71.5	72.6
82.5°	53.5	52.9	51.2	51.2	50.1
85°	37.7	36.0	33.8	33.2	32.6
87.5°	19.1	20.3	18.6	16.9	16.9
90°	0.0	0.0	0.0	0.0	0.0

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