

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: P162280

Luminaire Tested: **ECM-F02-LED-E1-SL2-HSS-8030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P162280
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33726)
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-SL2-HSS-8030
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (14) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2429.2 lumens
Efficiency: N/A
Efficacy: 44.2 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 1' x H: 0.1')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B0 - U0 - G1

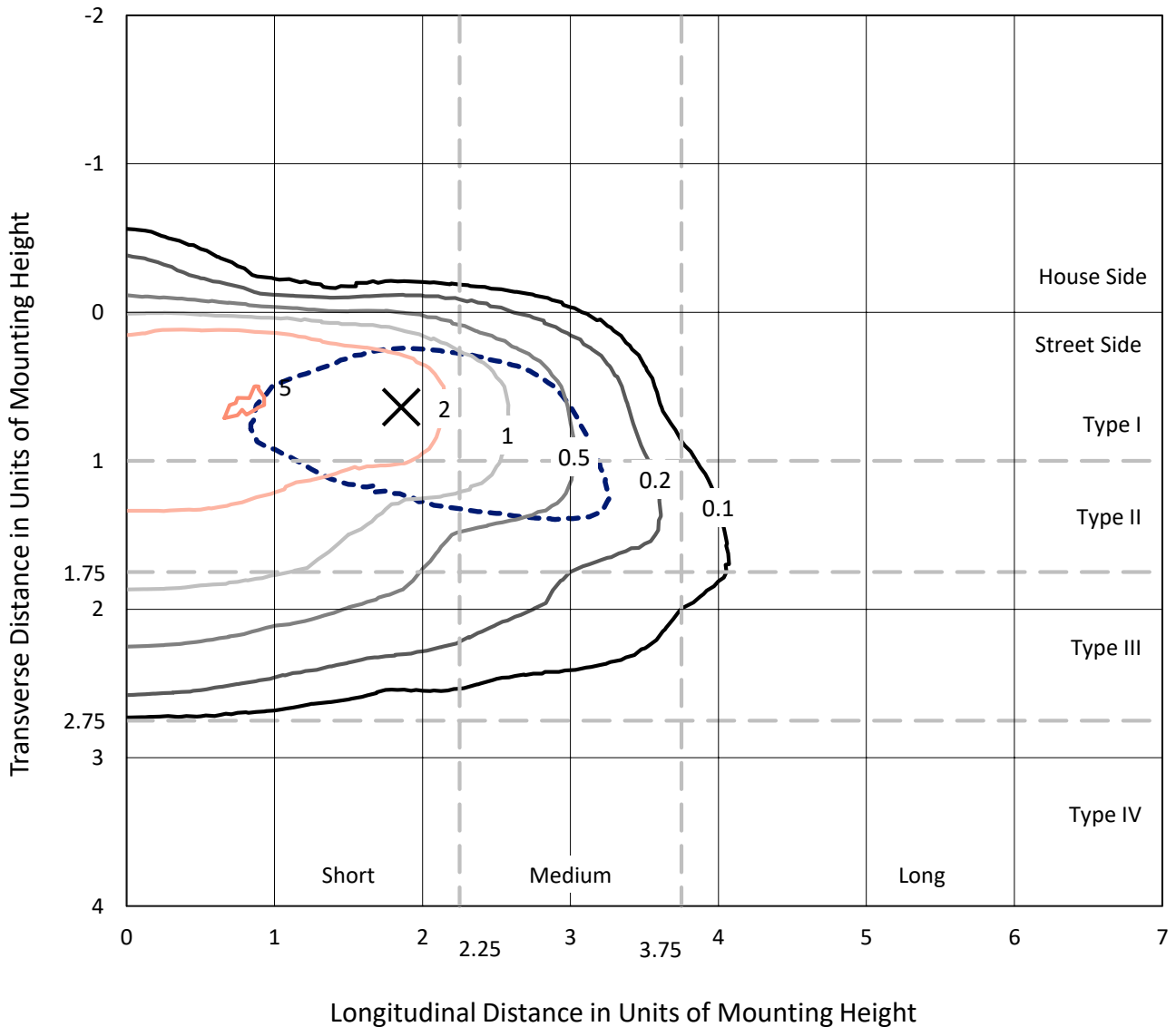
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

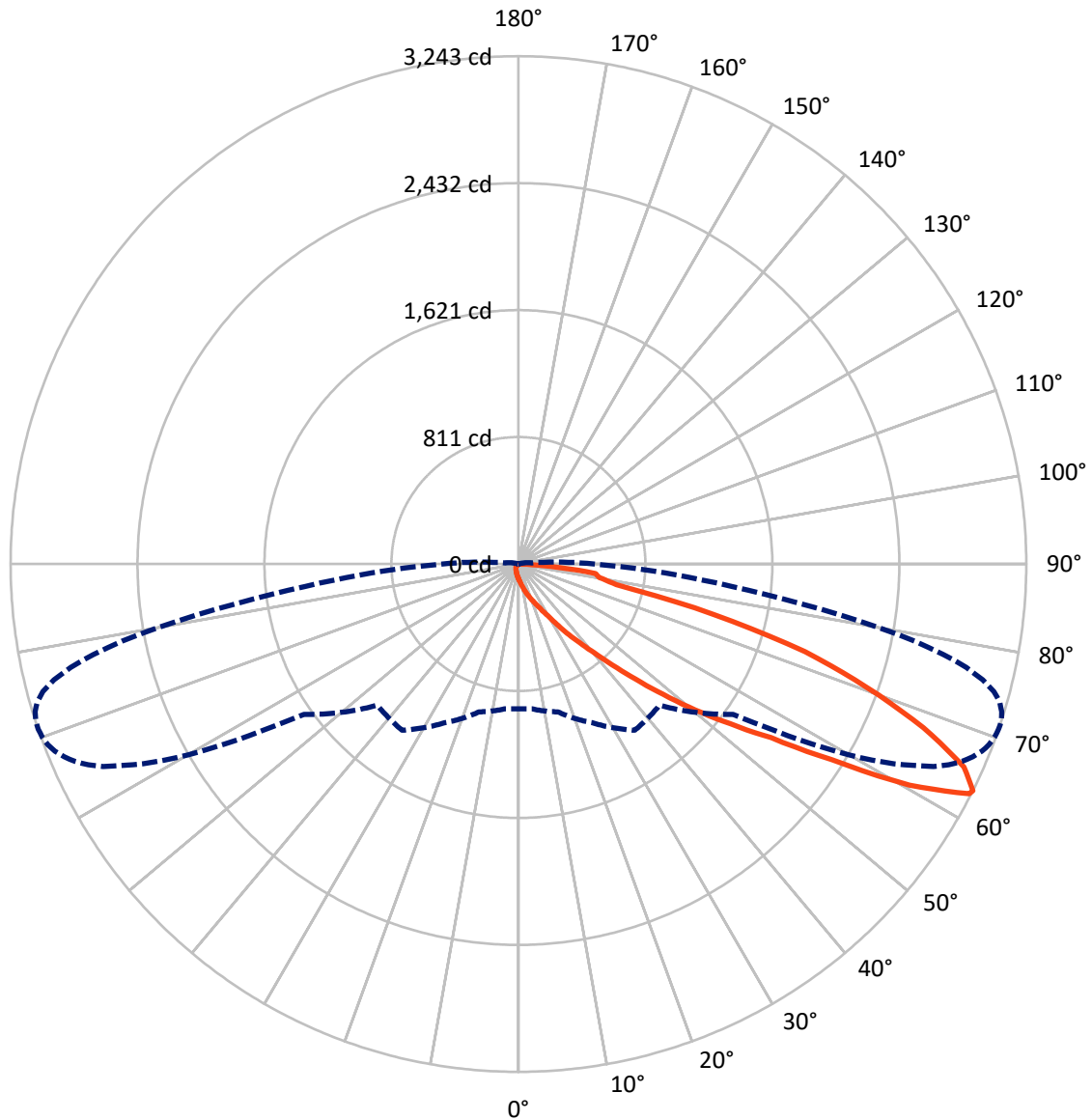
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.1 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 71-Deg Lateral - - - Horizontal Cone Through 63-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	51.6	0.0	51.6
	% Fixture	2.1	0.0	2.1
Street Side	Lumens	2377.7	0.0	2377.7
	% Fixture	97.9	0.0	97.9
Total	Lumens	2429.2	0.0	2429.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	10.3	0.4
10°-20°	39.9	1.6
20°-30°	81.1	3.3
30°-40°	198.2	8.2
40°-50°	443.3	18.2
50°-60°	623.3	25.7
60°-70°	733.0	30.2
70°-80°	264.7	10.9
80°-90°	35.4	1.5
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°	2429.2	100.0
0°-180°	2429.2	100.0



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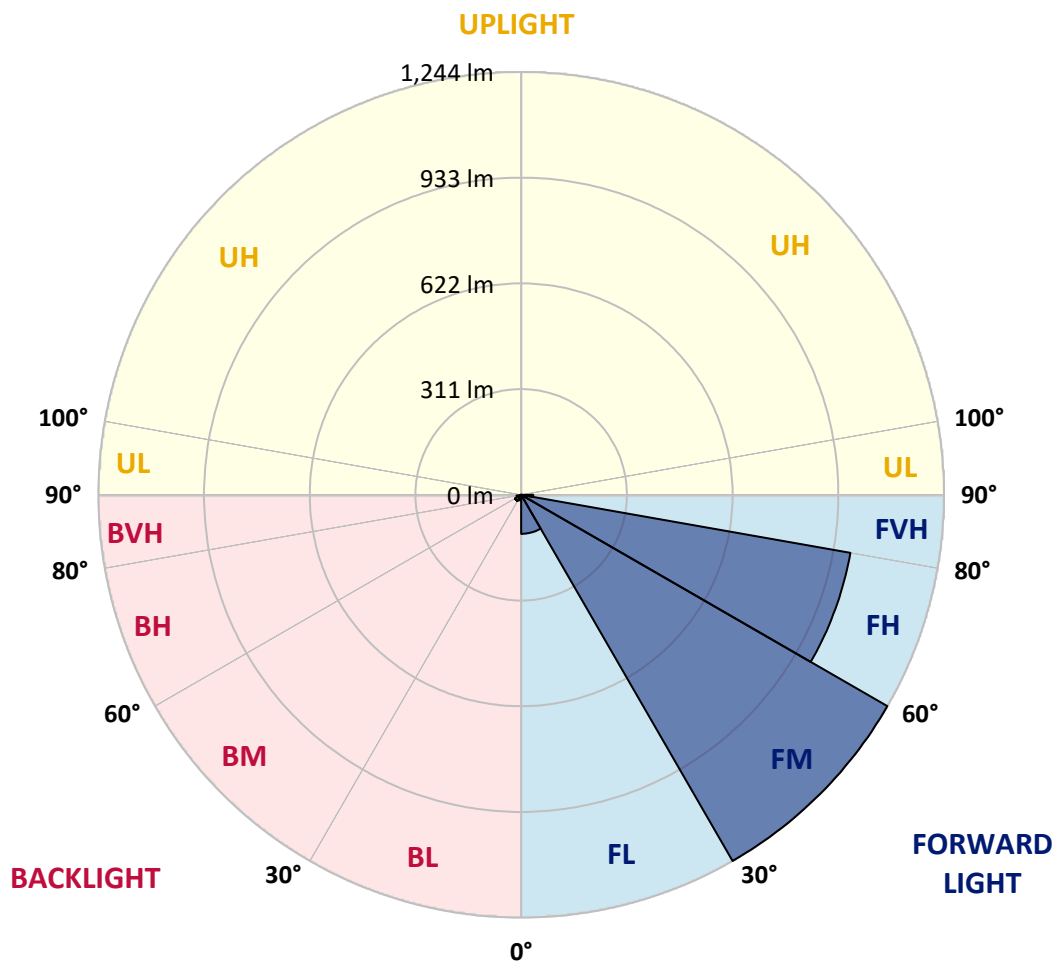
CATALOG NUMBER: ECM-F02-LED-E1-SL2-HSS-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	114.8	4.7			
FM (30°-60°)	1244.0	51.2			
FH (60°-80°)	983.5	40.5			G1/1800
FVH (80°-90°)	35.3	1.5			G1/100
BL (0°-30°)	16.6	0.7	B0/110		
BM (30°-60°)	20.8	0.9	B0/220		
BH (60°-80°)	14.1	0.6	B0/110		G0/110
BVH (80°-90°)	0.1	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2
2.5°	121.9	123.2	122.3	120.1	117.5	113.9	110.8	110.8	110.4	109.1	109.5
5°	159.9	160.3	158.5	153.2	148.4	140.9	132.5	131.6	130.7	129.4	128.9
7.5°	196.9	198.7	196.9	191.2	181.5	170.0	156.8	155.5	152.8	152.8	151.1
10°	234.9	234.9	233.2	226.5	217.7	201.4	184.6	182.4	179.3	178.4	175.8
12.5°	261.9	261.9	261.0	257.5	250.4	235.8	215.5	213.3	209.3	208.0	204.9
15°	272.5	272.5	272.9	276.0	276.5	269.8	248.6	246.9	242.9	239.4	238.1
17.5°	279.1	278.6	278.6	283.1	291.0	295.5	281.8	280.0	275.6	273.8	269.4
20°	293.7	292.8	290.1	290.1	297.6	313.1	313.1	312.6	307.8	306.5	304.3
22.5°	315.3	314.4	306.5	299.9	303.4	322.8	340.9	340.1	338.3	336.5	335.2
25°	350.6	347.5	333.9	314.4	311.3	332.1	362.1	364.3	365.6	365.6	366.5
27.5°	404.1	400.1	375.8	339.6	325.9	347.1	385.5	389.9	393.9	394.8	398.8
30°	478.3	471.2	436.3	383.3	352.0	369.2	420.0	424.8	430.6	432.3	438.5
32.5°	600.2	596.2	562.6	483.1	416.0	412.5	468.1	474.3	481.8	484.9	492.4
35°	785.6	786.5	759.2	687.6	594.9	546.3	554.2	559.5	562.2	571.5	575.4
37.5°	911.5	913.7	919.9	891.6	825.4	775.9	713.6	719.4	705.7	707.0	707.5
40°	980.4	987.5	1023.7	1051.0	1045.8	1017.0	967.2	970.2	944.6	938.9	911.1
42.5°	1026.3	1035.6	1093.5	1178.2	1221.5	1247.6	1236.1	1234.8	1214.9	1207.4	1184.0
45°	1055.0	1063.4	1136.3	1261.3	1361.0	1437.0	1468.4	1471.9	1455.2	1447.6	1428.2
47.5°	1053.7	1063.4	1141.6	1292.2	1439.2	1560.7	1649.0	1653.4	1663.6	1657.0	1658.3
50°	995.4	1004.7	1083.3	1239.6	1416.3	1617.2	1778.9	1793.0	1809.3	1820.3	1825.6
52.5°	924.8	931.4	1001.2	1149.5	1318.2	1593.8	1855.7	1880.0	1904.3	1925.0	1939.6
55°	898.7	906.2	961.0	1084.2	1239.6	1495.8	1891.5	1927.2	1961.7	1995.7	2023.5
57.5°	912.4	919.5	958.8	1053.3	1192.8	1392.4	1901.6	1957.3	2013.8	2069.0	2123.7
60°	962.7	970.2	1003.8	1082.0	1180.5	1332.8	1861.9	1954.2	2048.2	2144.5	2235.0
62.5°	942.9	945.9	995.4	1132.3	1268.8	1282.0	1717.5	1846.4	1989.9	2138.3	2284.5
63°	923.9	927.4	977.8	1118.6	1295.7	1274.5	1672.9	1808.9	1960.3	2120.2	2279.2
65°	837.8	838.2	876.6	987.9	1265.7	1287.8	1474.1	1604.0	1778.0	1969.6	2170.6
67.5°	625.3	622.2	659.3	744.1	993.6	1288.2	1265.2	1338.1	1459.1	1629.2	1809.3
70°	221.7	216.8	276.9	394.4	619.2	1053.7	1087.3	1092.1	1125.7	1217.5	1330.6
72.5°	72.0	73.3	88.3	144.4	285.3	709.2	984.3	969.3	960.5	960.1	975.1
75°	28.7	29.2	35.3	64.1	128.1	341.8	862.0	870.4	873.5	877.9	882.8
77.5°	13.7	15.0	19.9	35.8	63.6	169.1	616.9	688.0	728.7	760.0	779.0
80°	4.9	5.8	11.1	22.1	29.6	77.7	325.1	392.2	451.8	528.6	594.9
82.5°	0.0	0.0	2.2	15.5	16.4	31.4	133.4	156.3	178.9	231.8	297.6
85°	0.0	0.0	0.0	4.4	4.9	5.3	45.1	54.3	60.9	71.1	82.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.3	2.6	6.6	10.2
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):

	60°	61°	62°	64°	65°	66°	67°	68°	69°	70°	71°
0°	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2
2.5°	108.6	108.2	108.2	107.3	106.9	106.0	105.5	104.2	103.8	103.8	103.8
5°	128.5	126.8	125.9	123.6	122.3	121.9	119.7	118.8	117.5	117.9	115.7
7.5°	150.6	147.5	146.2	143.1	142.2	139.1	138.2	136.0	134.7	132.1	131.2
10°	174.9	170.9	168.7	163.8	162.5	160.3	157.6	155.0	152.8	150.2	148.8
12.5°	202.7	199.2	197.4	190.8	187.7	184.6	181.1	177.5	174.0	171.8	168.7
15°	235.4	229.6	227.9	221.7	216.4	212.4	207.6	203.1	200.5	196.1	193.0
17.5°	267.6	261.9	260.5	251.3	245.5	242.9	237.6	231.8	227.0	222.6	217.7
20°	299.9	295.9	292.4	283.5	277.3	272.9	265.9	260.1	256.1	249.9	243.8
22.5°	332.1	328.1	325.5	316.2	310.5	304.3	298.1	291.9	286.2	278.6	271.6
25°	365.2	362.6	361.2	352.9	347.5	341.8	335.6	328.6	321.5	313.1	305.6
27.5°	399.6	400.5	397.9	396.1	390.4	386.4	376.7	371.8	366.5	356.4	347.1
30°	443.4	446.1	445.2	446.5	442.9	440.3	432.8	426.6	420.4	410.7	400.1
32.5°	498.6	502.1	503.9	508.8	507.0	506.1	503.9	495.1	490.6	473.9	469.5
35°	583.8	582.1	589.6	593.5	591.8	590.9	588.2	583.4	578.1	566.2	555.1
37.5°	694.6	696.4	699.1	691.1	685.8	685.4	677.5	672.6	665.1	651.8	638.6
40°	897.8	886.8	874.4	840.8	826.3	817.9	794.5	787.9	775.0	756.9	743.2
42.5°	1161.9	1150.9	1113.8	1057.7	1027.6	986.1	967.2	943.8	925.6	896.0	880.2
45°	1424.2	1392.4	1388.0	1322.6	1285.6	1230.8	1196.8	1157.5	1116.4	1077.6	1049.3
47.5°	1645.5	1638.4	1616.8	1577.0	1542.6	1496.6	1452.9	1392.4	1350.0	1294.8	1244.0
50°	1822.6	1822.1	1814.2	1791.2	1762.5	1725.4	1687.0	1635.7	1587.6	1520.0	1465.7
52.5°	1955.0	1962.1	1964.7	1957.7	1946.7	1914.0	1894.6	1851.7	1811.1	1753.7	1694.9
55°	2052.2	2078.3	2091.5	2106.5	2103.4	2092.0	2091.0	2063.3	2044.7	1999.2	1957.7
57.5°	2172.3	2215.2	2256.2	2329.1	2331.7	2357.4	2370.6	2383.9	2387.4	2369.3	2355.6
60°	2325.1	2412.6	2490.3	2642.6	2682.4	2745.1	2785.7	2829.9	2867.4	2870.5	2869.6
62.5°	2432.9	2567.6	2693.0	2919.1	2996.4	3068.8	3123.1	3166.0	3192.0	3218.5	3230.9
63°	2436.0	2583.4	2716.9	2950.0	3031.3	3100.1	3151.8	3191.6	3219.0	3234.9	3242.8
65°	2361.3	2540.2	2699.2	2931.4	3007.9	3077.2	3104.1	3130.2	3143.4	3149.6	3126.2
67.5°	2001.4	2176.3	2361.8	2621.4	2686.8	2769.8	2791.9	2805.2	2811.3	2810.0	2790.1
70°	1496.6	1643.3	1849.5	2146.3	2232.8	2314.1	2364.4	2386.1	2393.1	2390.9	2361.3
72.5°	1044.9	1131.0	1301.0	1631.3	1749.3	1853.5	1915.7	1948.0	1954.6	1941.3	1914.0
75°	877.5	881.9	920.3	1100.9	1211.3	1322.6	1392.9	1413.2	1399.9	1359.7	1290.0
77.5°	783.4	793.2	793.2	820.1	841.7	872.6	879.3	829.8	772.4	698.2	638.1
80°	657.1	691.1	715.0	734.9	737.1	730.9	714.5	686.7	642.6	586.0	523.3
82.5°	399.2	466.3	493.7	596.2	646.5	680.5	677.9	640.8	607.2	548.5	495.1
85°	100.7	108.6	117.9	153.2	171.8	209.8	233.6	244.6	248.6	228.3	206.7
87.5°	9.7	6.6	11.1	8.4	11.9	8.8	11.9	11.1	13.7	14.6	15.9
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):

	72°	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°
0°	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2
2.5°	102.9	102.5	102.0	101.6	101.1	100.7	99.8	99.8	98.9	98.5	98.1
5°	114.4	113.5	113.1	112.2	110.8	109.9	108.6	106.9	105.5	105.1	104.2
7.5°	128.9	126.8	125.9	124.5	122.8	120.1	118.4	117.1	114.8	113.5	110.8
10°	145.3	143.1	140.4	137.8	135.1	132.1	129.8	128.1	124.5	122.8	119.7
12.5°	166.1	162.1	159.0	155.5	151.9	148.4	145.8	140.4	137.3	133.4	130.7
15°	187.2	183.7	180.2	175.8	170.5	164.7	162.1	157.2	153.2	147.1	143.5
17.5°	212.9	206.2	200.9	195.6	190.8	185.5	180.2	172.7	166.9	161.6	154.6
20°	238.1	230.1	224.3	217.3	210.2	201.8	195.6	190.3	182.4	175.3	167.8
22.5°	265.0	257.0	247.8	240.7	230.9	224.3	215.9	207.1	199.2	189.9	180.6
25°	297.6	289.2	278.6	269.4	258.3	249.1	238.9	228.8	219.1	208.5	196.5
27.5°	337.8	329.0	317.5	306.5	291.9	280.4	270.7	257.0	244.6	231.4	217.7
30°	388.6	378.9	364.8	348.9	334.3	321.5	307.8	289.7	276.0	260.1	242.5
32.5°	454.9	443.4	424.4	409.4	391.3	374.5	355.5	337.4	317.9	297.2	276.9
35°	538.3	527.8	505.6	483.6	463.7	443.8	420.0	399.2	371.8	346.6	320.6
37.5°	624.9	605.9	585.6	561.8	537.0	513.2	484.0	455.3	423.9	396.6	363.9
40°	723.8	700.9	684.1	658.5	623.6	589.6	562.6	526.9	487.5	450.9	412.5
42.5°	859.4	833.8	803.8	764.9	739.7	700.0	665.1	622.7	571.0	529.9	483.6
45°	1016.2	981.3	952.1	914.6	884.1	834.6	794.0	737.5	685.8	631.9	575.4
47.5°	1195.0	1151.8	1109.3	1072.2	1023.7	975.1	923.4	863.3	797.1	737.9	670.8
50°	1400.4	1339.0	1280.3	1232.6	1165.9	1109.8	1053.7	986.1	912.8	844.8	768.4
52.5°	1628.7	1557.6	1479.9	1406.6	1329.3	1257.3	1189.7	1112.0	1030.3	947.3	862.0
55°	1904.3	1850.8	1759.4	1666.2	1562.9	1466.6	1379.6	1283.3	1184.0	1074.9	985.2
57.5°	2335.7	2309.7	2233.3	2140.1	2005.4	1888.3	1740.9	1622.9	1479.0	1328.8	1213.1
60°	2920.4	2888.2	2845.3	2769.8	2663.0	2504.0	2341.4	2158.2	1939.2	1731.2	1533.7
62.5°	3232.2	3220.7	3185.8	3133.7	3033.9	2908.5	2744.7	2543.3	2296.0	2043.4	1791.6
63°	3241.5	3226.9	3196.9	3143.9	3056.0	2934.6	2773.8	2578.2	2336.2	2078.7	1821.7
65°	3116.1	3110.3	3079.8	3022.0	2961.9	2869.2	2744.7	2576.4	2373.3	2129.9	1874.2
67.5°	2763.7	2746.4	2699.6	2682.0	2640.0	2575.5	2480.6	2364.9	2219.6	2028.3	1807.6
70°	2337.5	2311.9	2253.1	2221.8	2170.6	2129.9	2072.1	1989.5	1899.9	1766.5	1601.7
72.5°	1885.7	1832.7	1778.9	1697.2	1625.6	1553.2	1489.2	1430.9	1332.3	1278.5	1153.5
75°	1224.6	1128.3	1036.0	912.4	801.1	702.6	606.8	558.2	457.1	416.0	357.3
77.5°	581.2	527.3	454.9	398.8	327.2	267.2	218.2	163.8	128.5	100.7	76.8
80°	469.0	423.5	379.8	329.0	275.1	219.5	168.2	125.9	89.2	61.8	43.7
82.5°	418.2	368.8	314.9	280.0	243.3	199.2	163.4	133.4	98.5	72.0	49.0
85°	162.5	136.9	105.5	86.1	67.1	55.2	49.9	34.5	26.9	21.2	16.4
87.5°	14.1	11.5	9.3	6.2	6.6	3.5	4.0	2.6	2.2	2.2	1.8
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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CATALOG NUMBER: ECM-F02-LED-E1-SL2-HSS-8030

CANDELA DISTRIBUTION (continued):

	83°	84°	85°	86°	87°	88°	89°	90°	95°	105°	115°
0°	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2
2.5°	97.6	97.2	96.7	95.8	95.8	94.9	94.5	94.1	91.9	87.0	83.0
5°	102.5	101.6	100.7	99.4	98.5	97.2	96.3	94.9	90.1	80.8	72.9
7.5°	109.5	107.8	106.4	103.8	102.5	100.7	99.4	97.2	89.2	75.1	64.1
10°	117.9	114.8	112.6	109.5	106.9	104.6	102.5	99.4	88.3	68.9	56.1
12.5°	128.1	124.5	120.1	116.6	113.1	109.9	106.9	102.9	87.0	63.6	49.9
15°	138.2	132.9	129.8	125.0	120.1	115.7	111.3	107.8	87.5	57.8	44.6
17.5°	149.7	144.4	137.8	132.5	127.2	121.5	116.1	109.1	85.2	53.4	40.6
20°	160.8	153.2	147.1	140.4	132.9	125.9	119.2	113.1	83.5	49.0	37.1
22.5°	172.7	163.8	155.9	147.5	138.2	130.3	122.3	114.4	80.4	45.1	34.0
25°	187.2	177.1	165.6	155.5	145.8	136.0	125.9	116.1	77.3	41.5	31.8
27.5°	204.9	191.6	180.2	167.4	153.7	141.3	130.3	119.7	74.2	38.9	29.6
30°	227.4	212.0	195.6	179.3	164.7	150.6	135.1	121.9	71.1	36.2	27.4
32.5°	257.5	238.1	218.2	199.2	179.8	161.6	145.3	128.1	69.3	34.0	25.2
35°	297.2	272.1	247.8	223.9	200.5	178.4	157.2	137.8	69.3	31.4	22.5
37.5°	334.8	305.6	274.7	245.1	217.3	191.6	166.5	143.1	65.8	29.2	20.3
40°	375.4	340.5	304.3	269.4	235.8	204.1	175.3	148.4	62.7	26.5	18.1
42.5°	437.6	393.5	346.2	305.6	265.4	226.1	190.3	158.5	58.8	23.8	15.9
45°	519.3	463.2	407.6	358.2	306.9	258.8	216.4	177.1	57.8	21.6	13.7
47.5°	606.8	540.5	475.2	412.0	352.0	295.9	245.1	197.8	57.8	19.4	11.9
50°	693.8	610.8	541.0	467.7	400.1	333.9	273.4	219.5	58.3	17.7	9.7
52.5°	772.4	683.6	605.5	520.6	446.1	369.2	303.4	240.7	57.4	15.5	7.9
55°	881.5	777.2	686.7	593.1	505.6	419.1	344.5	272.5	57.8	13.7	6.6
57.5°	1082.4	960.1	851.0	728.2	627.5	515.8	425.3	337.8	63.2	11.5	4.9
60°	1370.8	1211.8	1058.6	908.9	780.8	647.9	530.4	427.5	74.2	9.3	3.5
62.5°	1564.6	1356.6	1173.8	1008.6	859.8	720.7	592.6	475.6	81.7	7.5	2.2
63°	1584.5	1369.5	1185.8	1015.3	863.3	724.2	595.3	479.2	82.1	7.1	2.2
65°	1622.0	1391.5	1192.4	1016.6	859.8	719.4	593.5	478.7	83.0	5.8	1.8
67.5°	1579.2	1357.5	1153.9	978.6	828.9	690.7	571.5	461.1	82.6	4.0	1.3
70°	1412.3	1228.6	1049.7	886.3	750.3	625.3	520.2	420.4	75.9	2.6	0.9
72.5°	1036.9	911.9	773.3	655.3	565.3	469.5	400.5	315.8	58.8	1.8	0.5
75°	307.4	280.0	235.4	207.6	183.3	151.5	134.7	105.1	30.1	0.9	0.0
77.5°	61.4	55.6	49.9	45.5	42.8	36.6	34.9	28.7	12.4	0.5	0.0
80°	32.2	26.5	22.5	19.9	17.2	14.1	11.9	9.7	2.2	0.0	0.0
82.5°	30.9	20.8	15.0	12.4	10.6	8.4	6.6	4.9	1.3	0.0	0.0
85°	11.5	8.8	6.6	5.3	4.4	4.0	3.1	2.6	0.0	0.0	0.0
87.5°	1.8	1.3	1.3	0.9	0.9	0.5	0.5	0.5	0.0	0.0	0.0
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):

	125°	135°	145°	155°	165°	175°	180°
0°	93.2	93.2	93.2	93.2	93.2	93.2	93.2
2.5°	79.1	75.5	73.8	71.5	71.5	71.1	72.0
5°	65.8	60.9	57.4	54.8	55.2	53.9	54.3
7.5°	55.6	50.8	47.7	45.9	45.5	45.1	45.1
10°	48.1	43.7	41.1	39.8	39.3	39.3	39.3
12.5°	42.8	38.4	36.2	35.3	35.3	34.9	34.9
15°	38.4	34.9	32.7	31.8	31.8	31.4	31.8
17.5°	34.9	31.4	29.6	28.7	28.7	28.2	28.2
20°	31.8	28.7	26.9	25.6	25.6	25.2	25.6
22.5°	29.2	26.1	23.8	22.9	22.5	22.1	22.5
25°	26.5	23.4	21.2	19.9	19.4	19.4	19.0
27.5°	24.3	21.2	18.5	17.2	16.8	16.8	16.4
30°	22.1	18.5	15.9	14.6	14.1	14.1	14.1
32.5°	19.9	15.9	13.7	12.4	11.9	11.9	11.9
35°	17.7	13.7	11.5	10.2	9.7	9.7	9.7
37.5°	15.0	11.5	8.8	7.9	7.5	7.1	7.1
40°	12.8	8.8	6.6	5.8	4.9	4.9	4.9
42.5°	10.6	7.1	4.9	3.5	3.1	2.6	3.1
45°	8.8	5.3	3.1	1.8	1.3	1.3	1.3
47.5°	7.1	3.5	1.3	0.5	0.5	0.5	0.5
50°	5.3	2.2	0.5	0.0	0.0	0.5	0.5
52.5°	4.0	1.3	0.0	0.0	0.0	0.0	0.0
55°	2.2	0.5	0.0	0.0	0.0	0.0	0.0
57.5°	1.3	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.9	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.5	0.0	0.0	0.0	0.0	0.0	0.0
63°	0.5	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.5	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)