

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: P140905

Luminaire Tested: **ECM-F01-LED-E1-SL2**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P140905
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33690)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-F01-LED-E1-SL2
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 W/ SPILL LIGHT CONTROL
Light Source: (7) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2375.8 lumens
Efficiency: N/A
Efficacy: 91.7 lumens/watt
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B1 - U0 - G1

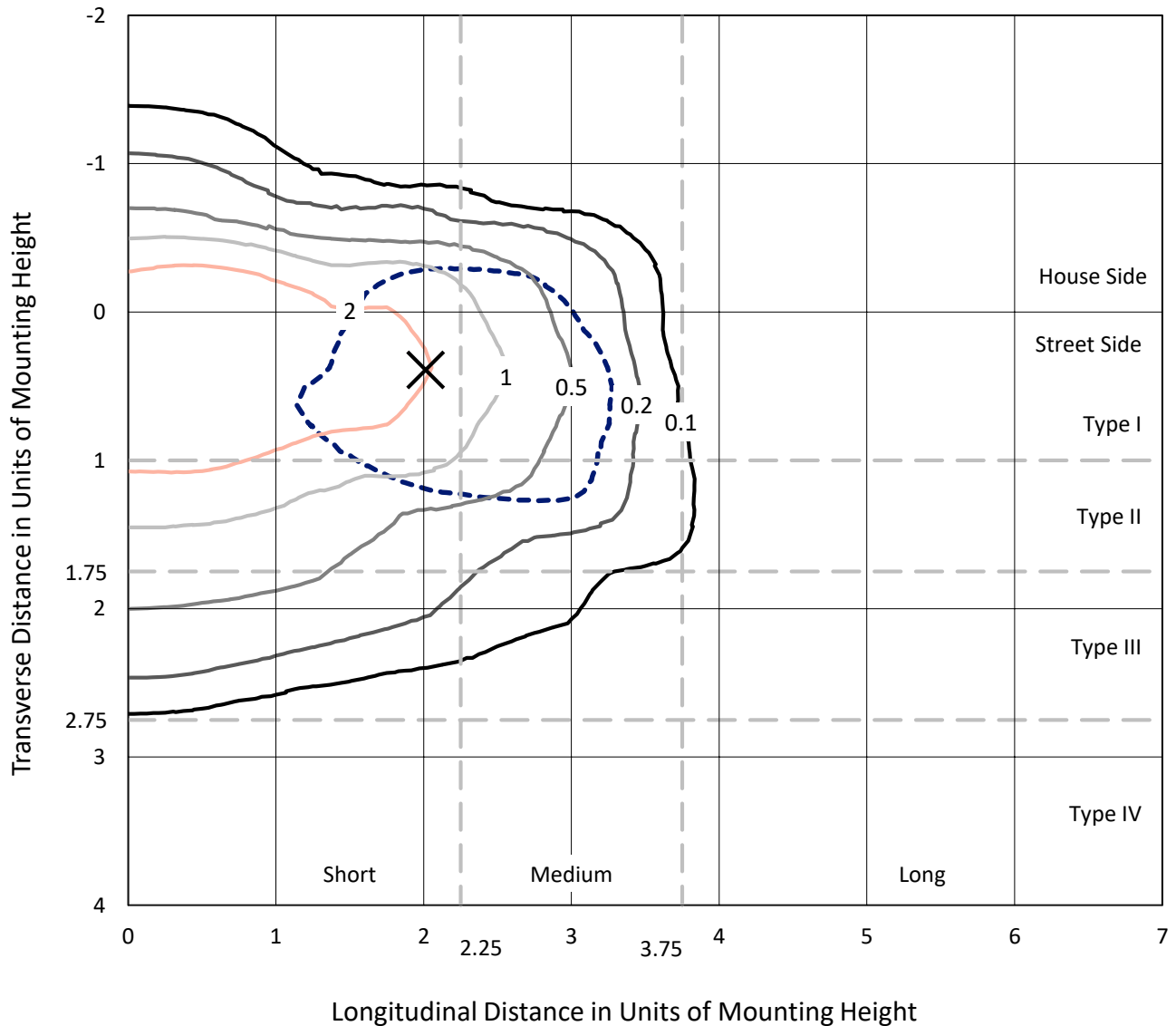
Input Watts (W): 25.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

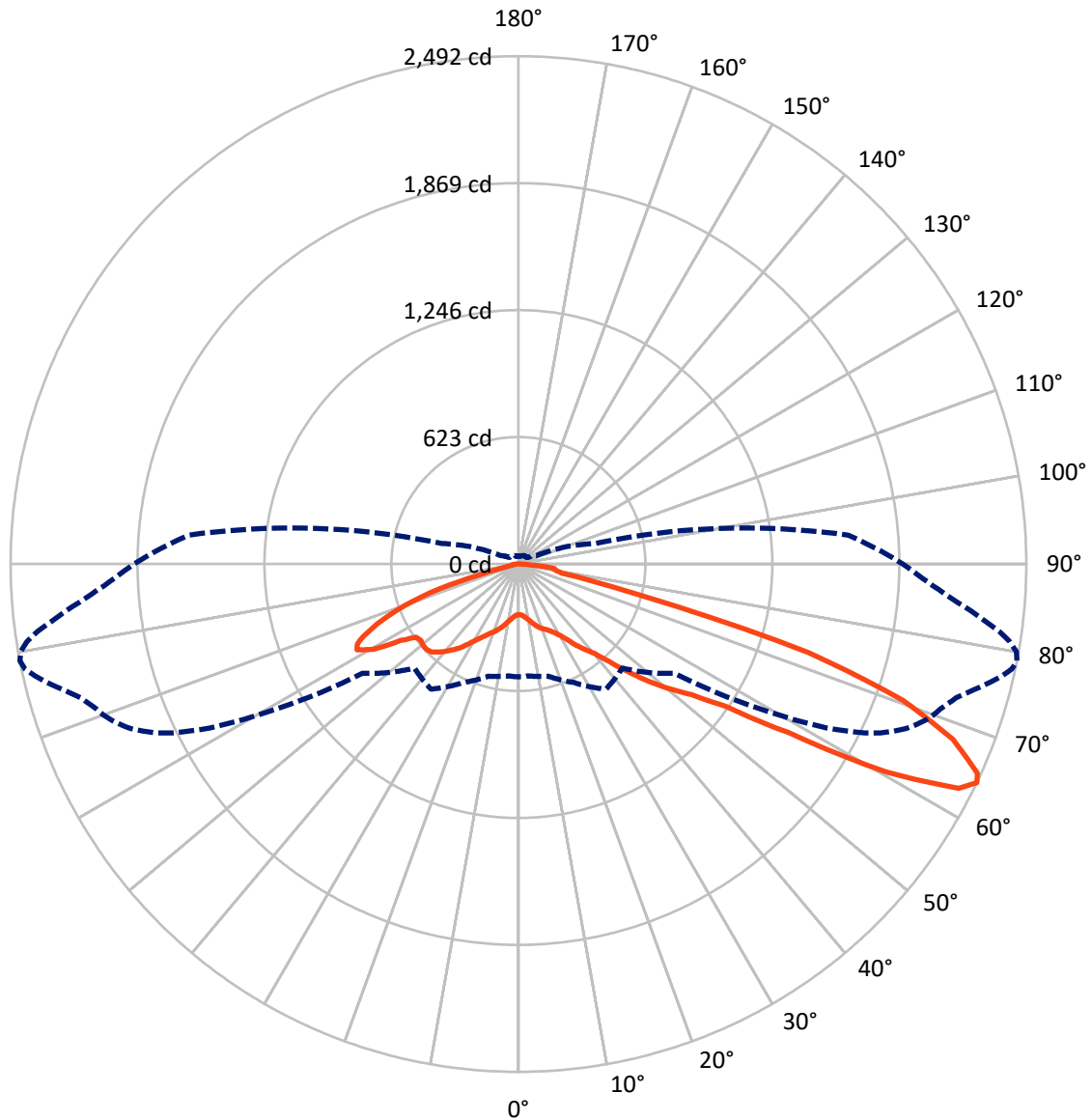
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.3 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 64-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	566.3	0.0	566.3
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	1809.5	0.0	1809.5
	% Fixture	76.2	0.0	76.2
Total	Lumens	2375.8	0.0	2375.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.6	1.0
10°-20°	79.8	3.4
20°-30°	137.0	5.8
30°-40°	229.0	9.6
40°-50°	392.3	16.5
50°-60°	529.2	22.3
60°-70°	669.4	28.2
70°-80°	267.1	11.2
80°-90°	47.4	2.0
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°	2375.8	100.0
0°-180°	2375.8	100.0



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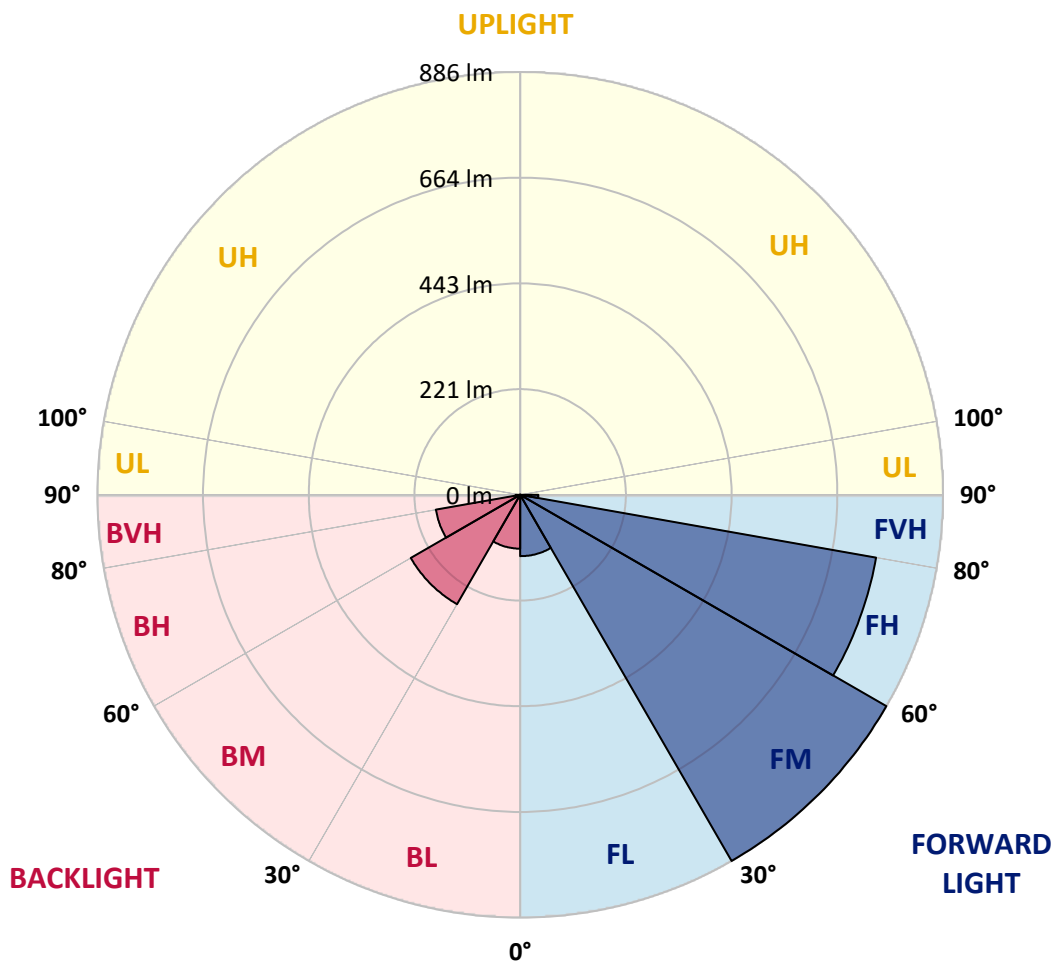
CATALOG NUMBER: ECM-F01-LED-E1-SL2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	128.6	5.4			
FM	(30°-60°)	885.8	37.3			
FH	(60°-80°)	757.1	31.9			G1/1800
FVH	(80°-90°)	37.9	1.6			G1/100
BL	(0°-30°)	112.8	4.7	B1/500		
BM	(30°-60°)	264.6	11.1	B1/1000		
BH	(60°-80°)	179.4	7.6	B1/500		G1/500
BVH	(80°-90°)	9.4	0.4			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Short





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CATALOG NUMBER: ECM-F01-LED-E1-SL2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5
2.5°	247.4	247.7	247.4	248.2	248.8	249.6	249.6	249.6	249.6	249.6	249.6
5°	247.1	247.4	247.1	248.5	249.9	251.5	253.2	253.7	253.7	254.0	254.3
7.5°	249.6	249.9	249.6	251.2	253.2	255.9	258.9	260.6	260.9	261.1	261.7
10°	257.3	256.7	255.6	257.3	259.2	263.3	266.9	269.7	270.5	270.8	271.9
12.5°	267.5	267.2	265.3	264.4	265.5	270.2	276.8	280.7	281.5	281.8	282.9
15°	275.2	274.3	272.7	271.6	273.5	278.5	287.3	292.2	293.9	294.2	296.1
17.5°	280.1	279.6	276.8	276.0	279.0	286.7	297.7	303.8	304.9	305.7	307.9
20°	288.4	286.7	282.6	279.0	281.5	293.3	306.3	312.6	314.2	315.1	317.0
22.5°	299.4	298.0	293.1	284.0	284.0	297.2	314.0	321.1	322.5	324.2	326.4
25°	318.4	317.3	307.6	292.2	288.4	301.0	321.1	330.8	332.1	334.1	337.4
27.5°	337.9	336.5	325.8	305.2	296.1	308.2	331.6	343.1	345.1	347.3	351.1
30°	363.0	360.5	349.7	325.8	311.2	319.8	348.1	362.7	364.9	367.6	372.9
32.5°	419.1	420.2	400.7	375.3	349.7	346.2	373.7	391.6	394.9	398.5	405.6
35°	510.4	506.0	498.9	473.0	444.7	416.6	423.5	442.8	446.3	447.4	450.5
37.5°	568.8	571.3	577.0	577.0	555.9	544.0	524.5	515.1	516.0	517.1	514.6
40°	601.3	606.5	626.3	653.0	672.3	683.0	679.7	635.9	630.7	623.8	601.8
42.5°	624.6	629.9	663.7	714.9	762.8	800.8	821.7	787.3	783.4	766.9	740.5
45°	639.0	643.1	683.8	756.5	828.8	893.5	950.7	938.6	937.5	923.5	888.8
47.5°	636.2	639.8	682.2	769.7	864.6	952.4	1041.0	1063.0	1064.1	1060.5	1039.3
50°	595.5	604.0	646.1	740.5	844.8	975.2	1099.3	1156.8	1158.5	1161.8	1153.5
52.5°	559.2	565.8	603.5	687.9	788.1	952.7	1134.3	1225.6	1239.7	1247.6	1263.1
55°	544.3	548.1	577.0	648.9	741.3	892.4	1146.1	1275.4	1300.5	1315.6	1350.8
57.5°	541.5	544.6	566.9	621.6	710.2	830.2	1142.3	1342.3	1381.9	1410.5	1478.8
60°	560.0	562.7	578.4	624.4	688.8	784.8	1107.0	1430.4	1485.9	1563.0	1673.1
62.5°	573.7	575.1	594.4	658.8	712.4	740.5	1017.3	1492.0	1590.8	1688.7	1852.5
64°	553.7	550.9	569.9	640.9	749.0	721.5	934.2	1489.0	1604.8	1713.5	1890.7
65°	524.2	526.1	543.2	605.9	742.7	720.7	879.7	1456.0	1576.2	1691.5	1872.8
67.5°	407.3	414.7	419.4	476.9	608.4	744.1	736.6	1245.7	1366.5	1476.6	1691.0
70°	219.0	218.2	228.7	274.1	423.2	631.5	632.1	878.1	1011.8	1148.6	1361.8
72.5°	80.6	84.8	93.0	125.2	219.9	455.7	579.2	609.0	668.7	777.4	1006.0
75°	46.2	46.8	48.4	58.9	105.9	251.5	538.2	538.8	543.2	561.1	685.5
77.5°	36.0	34.9	35.8	38.2	57.8	132.4	431.7	511.8	511.3	508.5	526.7
80°	27.0	28.1	29.7	29.7	35.8	71.0	245.5	455.4	470.8	482.4	489.0
82.5°	21.7	22.6	26.7	26.7	26.1	40.2	115.8	337.4	385.8	417.2	465.9
85°	14.0	14.9	22.6	22.3	21.2	23.7	60.5	113.1	121.9	148.6	211.3
87.5°	3.9	4.7	10.5	9.1	11.0	8.8	22.6	34.4	42.4	47.9	60.3
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-F01-LED-E1-SL2

CANDELA DISTRIBUTION (continued):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5
2.5°	249.6	249.6	249.6	249.9	249.9	249.9	249.9	249.9	250.1	249.6	249.6
5°	254.5	254.3	254.5	254.5	255.4	255.1	255.4	255.4	255.1	255.6	255.6
7.5°	262.5	262.0	262.5	262.8	263.1	264.2	264.2	264.7	265.0	265.3	264.7
10°	272.1	273.0	273.2	273.2	274.6	275.2	275.2	276.0	276.8	277.4	277.1
12.5°	284.0	284.5	284.8	286.5	286.7	287.6	288.9	289.8	289.8	291.1	292.0
15°	297.2	297.7	299.4	299.9	301.0	302.4	303.2	304.1	304.1	306.5	307.4
17.5°	308.5	309.6	310.7	311.5	313.4	314.8	316.2	317.0	318.4	319.5	321.4
20°	318.1	319.5	320.9	322.5	323.9	325.3	326.9	328.0	329.7	331.3	333.2
22.5°	327.5	329.1	330.8	332.1	334.1	335.4	336.8	338.7	339.8	341.5	343.7
25°	337.6	340.4	342.0	344.0	345.9	347.8	349.5	351.1	352.8	355.0	357.2
27.5°	353.9	355.3	357.5	358.6	361.9	364.1	366.3	366.5	368.7	372.9	373.4
30°	375.1	377.5	378.9	382.8	383.3	384.1	387.7	390.2	392.9	396.3	397.6
32.5°	407.0	409.2	411.1	412.2	415.2	420.2	420.7	422.9	427.6	428.4	433.4
35°	453.8	454.3	457.3	459.0	462.8	465.6	467.0	468.9	471.4	477.2	478.5
37.5°	509.9	514.6	510.7	506.9	513.8	512.9	514.6	512.4	519.0	519.3	521.7
40°	597.1	595.2	586.9	578.1	574.0	571.5	566.6	565.5	569.1	567.4	568.2
42.5°	725.6	707.5	693.4	683.0	670.1	656.0	648.0	635.9	635.9	632.4	635.7
45°	876.7	856.3	830.2	805.4	789.5	771.0	752.1	739.4	726.5	716.8	725.4
47.5°	1025.6	1011.8	982.6	959.8	927.9	900.4	870.4	844.2	828.8	817.5	819.2
50°	1154.9	1142.3	1127.1	1096.3	1072.1	1044.0	1012.4	978.0	944.7	931.2	919.6
52.5°	1263.9	1259.5	1246.5	1232.2	1212.4	1182.4	1162.3	1129.6	1090.2	1061.9	1049.8
55°	1360.2	1367.9	1374.8	1371.7	1364.6	1360.7	1336.0	1313.7	1287.0	1278.7	1253.7
57.5°	1511.8	1534.1	1560.5	1575.1	1589.4	1622.2	1630.1	1621.6	1624.9	1622.7	1609.5
60°	1726.4	1780.4	1826.6	1863.5	1902.8	1941.1	1986.2	2015.9	2028.3	2076.2	2075.4
62.5°	1910.5	1982.4	2041.5	2085.8	2131.8	2166.5	2195.6	2225.3	2261.7	2296.3	2340.1
64°	1960.6	2017.0	2065.2	2104.8	2137.8	2166.2	2188.5	2215.7	2245.7	2290.6	2339.0
65°	1934.8	1998.3	2033.3	2069.0	2098.8	2120.8	2143.6	2168.4	2206.4	2241.9	2293.6
67.5°	1758.9	1807.1	1857.7	1891.0	1919.6	1932.6	1954.0	1974.7	1995.8	2031.6	2096.3
70°	1483.2	1537.1	1610.0	1641.4	1671.1	1675.8	1695.9	1711.3	1725.3	1773.0	1804.9
72.5°	1112.8	1217.4	1288.9	1344.0	1350.0	1373.4	1381.7	1388.0	1403.9	1412.7	1422.4
75°	766.9	861.0	921.8	942.7	968.3	956.0	941.6	891.3	891.6	848.9	800.5
77.5°	539.6	554.2	554.8	555.0	521.2	501.4	478.8	449.9	438.6	416.1	385.2
80°	489.3	487.6	477.4	465.0	446.6	420.2	392.9	374.0	359.1	342.3	320.3
82.5°	472.2	476.1	468.6	458.2	447.4	421.3	389.9	360.2	335.7	309.0	282.1
85°	230.0	236.7	258.1	272.1	275.5	259.2	236.9	210.0	184.1	154.9	141.4
87.5°	69.1	74.0	75.7	80.4	86.1	78.4	69.1	61.9	49.8	43.2	33.8
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-F01-LED-E1-SL2

CANDELA DISTRIBUTION (continued):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5
2.5°	249.6	249.9	249.9	249.6	249.9	249.9	250.1	249.9	249.9	249.9	249.6
5°	255.1	256.2	255.9	255.9	256.5	256.5	256.2	256.7	256.5	256.5	256.2
7.5°	265.5	265.5	266.4	266.6	266.1	266.1	266.6	266.9	267.5	267.7	267.7
10°	277.7	279.0	279.0	279.3	279.6	280.4	280.7	280.7	281.2	281.2	281.8
12.5°	292.5	293.1	293.6	295.0	295.3	295.3	296.6	296.4	296.4	297.7	298.0
15°	308.5	309.3	310.7	311.2	311.8	313.1	314.0	314.8	314.5	316.5	317.0
17.5°	322.5	323.3	325.0	326.4	327.2	328.0	328.6	329.7	331.3	332.7	333.0
20°	333.8	334.9	336.8	338.5	339.8	340.7	342.9	344.0	344.5	345.6	347.0
22.5°	344.8	346.7	348.6	349.2	352.2	353.0	354.7	356.4	357.5	359.9	360.8
25°	358.6	360.2	362.7	364.3	366.3	367.9	369.6	370.9	373.4	375.6	376.7
27.5°	376.7	378.1	380.0	383.0	384.7	385.8	388.8	391.6	392.7	394.9	396.8
30°	400.7	402.0	404.8	407.8	409.2	412.8	415.0	416.9	419.1	422.1	424.9
32.5°	435.6	437.3	439.7	443.6	443.6	446.1	450.7	454.9	456.5	460.1	462.0
35°	481.6	481.8	484.6	490.4	492.0	491.5	495.9	499.7	500.8	506.3	509.9
37.5°	526.1	527.0	530.3	532.5	535.5	537.7	540.7	546.5	546.5	554.5	557.8
40°	572.4	576.5	577.0	577.6	582.5	591.4	594.4	600.2	605.4	613.1	616.7
42.5°	639.5	643.9	649.1	655.2	662.6	667.6	673.4	681.6	683.8	693.4	695.9
45°	731.4	736.6	750.7	752.1	765.3	771.9	781.5	792.5	795.3	801.6	798.3
47.5°	823.0	829.1	844.5	860.5	872.6	884.1	886.9	891.6	895.7	891.8	892.9
50°	924.6	933.4	948.0	962.0	971.1	984.3	984.3	985.4	981.5	975.2	965.0
52.5°	1043.5	1044.8	1054.2	1065.2	1073.5	1076.2	1076.2	1069.9	1060.5	1050.3	1030.5
55°	1241.9	1226.7	1229.5	1229.5	1223.4	1218.5	1214.6	1199.2	1180.8	1162.3	1144.2
57.5°	1599.3	1613.6	1571.0	1559.4	1560.0	1522.3	1506.9	1480.4	1460.6	1427.6	1399.8
60°	2109.2	2099.3	2085.3	2072.1	2073.2	2023.4	1988.4	1949.1	1914.7	1842.0	1811.2
62.5°	2379.2	2414.4	2434.5	2424.3	2400.9	2369.8	2312.6	2252.9	2192.3	2130.7	2075.4
64°	2389.1	2435.6	2475.2	2491.7	2480.7	2441.4	2383.0	2308.7	2236.6	2164.0	2097.1
65°	2341.2	2400.1	2451.3	2474.4	2474.9	2440.3	2381.9	2307.1	2230.0	2145.8	2076.2
67.5°	2142.5	2210.2	2260.6	2299.4	2332.7	2315.0	2274.6	2195.1	2122.1	2026.7	1950.4
70°	1844.5	1886.3	1943.0	1999.7	2026.4	2030.5	2015.4	1975.2	1889.9	1812.3	1714.1
72.5°	1421.6	1486.5	1453.2	1488.1	1510.4	1488.7	1491.4	1422.9	1395.4	1327.2	1258.1
75°	752.9	755.1	740.8	636.8	623.8	576.2	629.0	534.7	502.5	472.8	434.5
77.5°	349.2	304.1	262.0	218.8	178.9	156.6	122.2	107.6	96.9	85.3	87.8
80°	292.0	257.3	220.4	182.7	153.5	124.1	99.6	77.3	61.9	52.0	47.3
82.5°	258.4	227.8	202.3	179.1	158.2	129.3	106.2	82.0	63.0	47.6	36.9
85°	116.7	91.4	83.1	65.5	55.6	47.3	37.7	31.1	25.6	21.7	17.1
87.5°	27.2	18.7	16.0	15.1	13.2	12.4	10.5	11.0	9.1	7.2	7.4
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: P140905

CATALOG NUMBER: ECM-F01-LED-E1-SL2

CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	155°
0°	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5
2.5°	249.6	249.6	249.9	249.9	250.1	250.7	251.5	250.7	250.7	250.7	251.0
5°	256.7	257.0	256.7	256.7	257.3	258.1	258.4	256.7	255.9	255.1	254.0
7.5°	267.2	268.3	268.0	268.0	268.6	268.6	268.0	265.5	263.1	259.2	255.9
10°	281.8	282.3	282.3	282.3	283.2	283.7	281.2	275.7	269.1	262.2	256.2
12.5°	299.1	298.8	299.7	300.5	299.9	299.9	295.3	286.7	276.0	264.7	254.3
15°	317.3	317.6	317.6	318.9	319.2	318.1	310.7	297.5	281.0	263.9	247.1
17.5°	334.3	334.9	335.2	336.3	337.6	334.6	323.9	306.0	281.8	256.2	233.6
20°	348.6	349.5	350.3	351.1	352.5	350.3	336.0	310.1	277.4	243.8	217.9
22.5°	361.6	363.0	363.5	364.9	367.1	364.3	347.0	310.1	267.5	230.3	200.3
25°	377.3	378.9	381.7	382.2	386.1	383.0	355.8	307.9	256.2	213.3	181.3
27.5°	397.9	399.6	402.0	403.4	408.1	404.0	362.4	302.1	242.2	194.8	162.9
30°	425.1	426.8	429.8	431.2	439.7	426.0	366.8	293.3	225.9	173.4	141.7
32.5°	463.1	467.5	467.2	470.8	478.5	450.5	368.7	281.0	205.6	151.6	121.9
35°	512.9	516.0	518.7	523.7	527.2	476.6	367.4	264.7	180.2	129.1	104.6
37.5°	560.8	566.0	568.0	571.3	570.4	494.2	361.9	239.4	152.7	109.0	92.7
40°	620.5	623.5	629.6	632.6	618.0	511.0	348.9	205.6	125.2	95.8	85.0
42.5°	700.0	703.9	700.9	700.0	672.0	520.4	324.2	171.7	104.8	86.1	78.7
45°	796.6	798.3	789.2	783.1	734.2	519.5	288.1	139.8	90.8	79.0	73.2
47.5°	883.9	880.6	868.7	859.6	788.1	500.3	243.0	115.3	83.4	73.2	68.8
50°	956.0	941.4	928.7	917.2	831.3	470.8	199.8	97.1	76.2	68.5	64.4
52.5°	1021.2	1001.4	986.5	967.0	870.7	432.0	165.4	84.8	69.1	63.8	59.7
55°	1117.8	1094.6	1075.7	1056.4	940.3	401.8	143.1	75.4	61.9	58.9	55.0
57.5°	1394.9	1332.9	1316.2	1298.8	1126.8	395.2	130.2	68.0	56.4	54.2	51.7
60°	1773.8	1733.6	1706.6	1664.3	1436.7	416.3	120.5	62.5	52.6	51.2	49.0
62.5°	2020.9	1972.5	1927.9	1884.7	1618.6	415.8	108.7	58.9	50.4	50.1	46.8
64°	2036.6	1982.4	1932.6	1886.0	1624.4	388.5	98.0	56.4	50.4	50.4	45.4
65°	2010.7	1956.2	1904.8	1856.3	1591.3	367.6	90.8	55.3	51.2	50.9	44.6
67.5°	1878.9	1824.1	1766.3	1714.3	1451.5	288.1	71.8	53.4	55.6	53.7	43.8
70°	1645.8	1583.6	1540.2	1502.7	1246.0	201.2	57.0	54.5	60.8	57.0	46.0
72.5°	1192.9	1142.3	1141.7	1099.3	943.3	127.7	46.0	54.2	60.5	56.4	47.6
75°	463.4	397.4	395.2	410.0	401.2	69.1	39.6	47.9	49.5	47.1	42.1
77.5°	79.3	77.9	77.0	81.2	89.4	38.2	36.3	40.7	36.9	33.3	34.9
80°	44.0	42.1	41.6	41.6	39.1	31.4	32.2	32.5	26.7	24.8	28.9
82.5°	30.5	28.3	27.2	26.4	25.6	28.1	28.6	25.6	19.3	19.0	27.0
85°	14.9	14.0	13.8	13.8	15.7	26.4	23.7	19.8	12.9	12.9	29.2
87.5°	6.3	6.3	5.5	5.5	8.5	16.8	10.7	8.3	5.2	6.1	11.8
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):

	165°	175°	180°
0°	248.5	248.5	248.5
2.5°	250.7	251.2	251.0
5°	252.6	252.6	252.1
7.5°	252.3	251.2	250.7
10°	250.7	247.7	247.4
12.5°	246.3	241.3	240.0
15°	233.6	227.0	225.4
17.5°	217.7	210.0	207.8
20°	199.5	190.7	187.7
22.5°	181.9	171.7	168.7
25°	162.6	152.4	150.8
27.5°	141.4	131.8	129.3
30°	121.9	113.6	111.7
32.5°	104.3	98.5	98.5
35°	92.7	87.8	87.8
37.5°	83.7	81.5	81.2
40°	77.6	75.7	75.4
42.5°	72.9	70.7	70.4
45°	68.0	65.8	65.8
47.5°	63.3	60.8	61.1
50°	58.6	56.7	56.7
52.5°	54.8	52.8	52.6
55°	51.2	49.3	49.0
57.5°	47.9	45.7	45.4
60°	44.6	42.4	41.8
62.5°	41.8	39.4	38.8
64°	40.2	37.7	37.1
65°	39.4	36.6	36.3
67.5°	38.5	34.9	34.7
70°	41.6	34.4	33.0
72.5°	41.8	33.6	31.9
75°	39.6	31.9	30.5
77.5°	34.9	29.2	27.5
80°	33.6	22.8	20.1
82.5°	30.8	18.7	15.7
85°	25.3	12.1	11.3
87.5°	14.6	8.0	5.8
90°	0.0	0.0	0.0

(END OF REPORT)