

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: P180893

Luminaire Tested: **ICM-F04-LED-E1-SL4**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P180893
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33680)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ICM-F04-LED-E1-SL4
Description: ICON SITE MEDIUM LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (28) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9074.3 lumens
Efficiency: N/A
Efficacy: 88.8 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 1' x H: 0.1')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

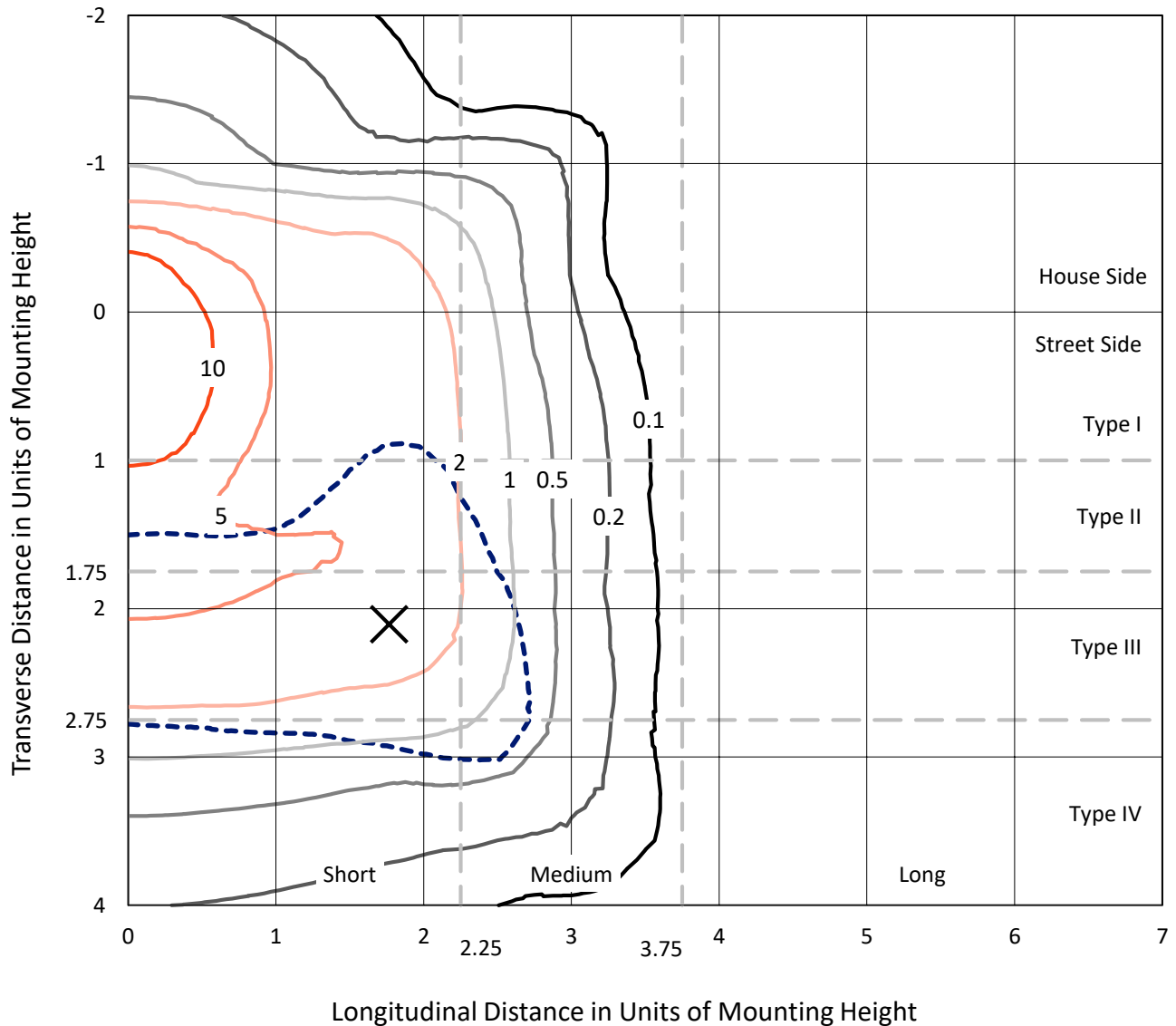
Input Watts (W): 102.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

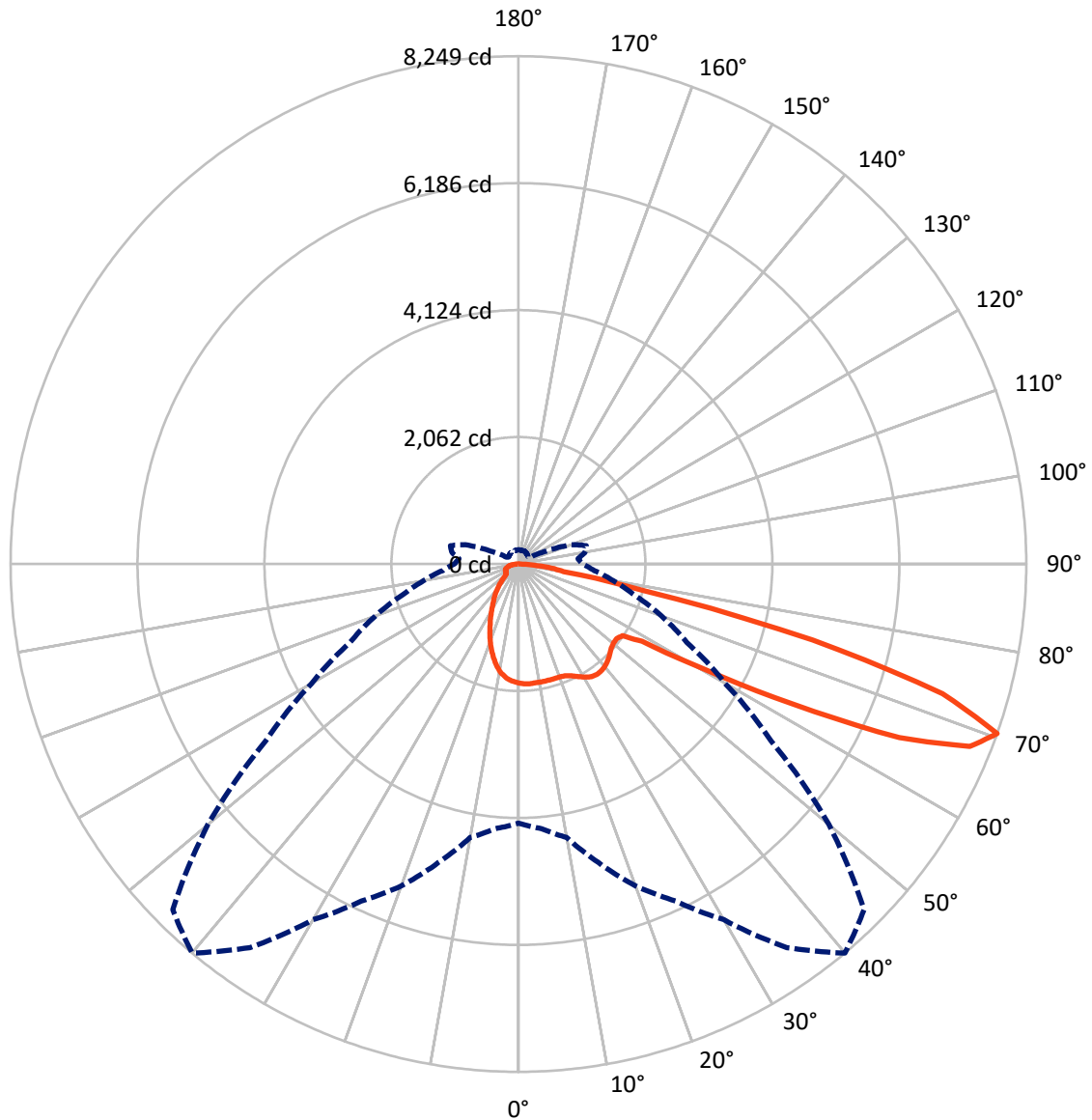
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 19.5 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1883.7	0.0	1883.7
	% Fixture	20.8	0.0	20.8
Street Side	Lumens	7190.6	0.0	7190.6
	% Fixture	79.2	0.0	79.2
Total	Lumens	9074.3	0.0	9074.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.9	2.0
10°-20°	495.2	5.5
20°-30°	733.0	8.1
30°-40°	926.4	10.2
40°-50°	1047.7	11.5
50°-60°	1490.9	16.4
60°-70°	2776.6	30.6
70°-80°	1272.5	14.0
80°-90°	151.1	1.7
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°	9074.3	100.0
0°-180°	9074.3	100.0



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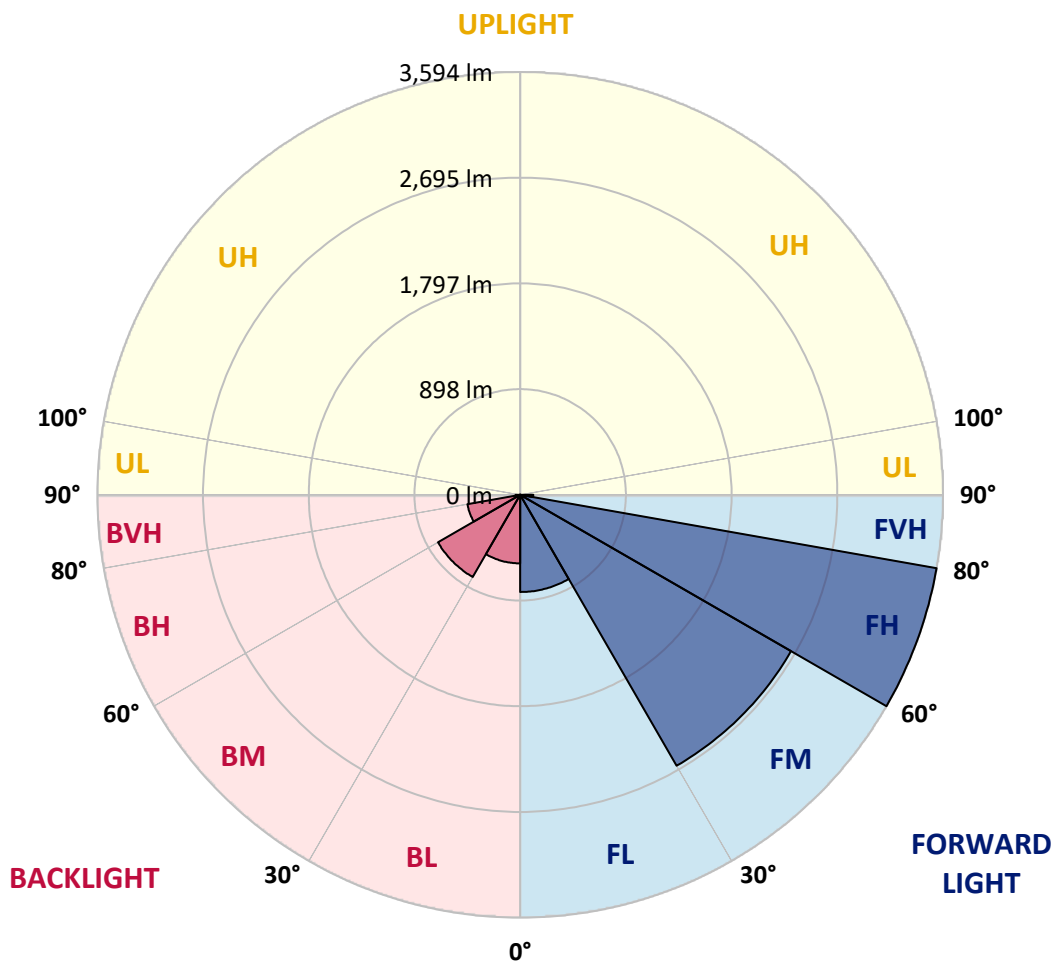
CATALOG NUMBER: ICM-F04-LED-E1-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	826.3	9.1			
FM	(30°-60°)	2658.5	29.3			
FH	(60°-80°)	3593.8	39.6			G2/5000
FVH	(80°-90°)	112.1	1.2			G2/225
BL	(0°-30°)	582.8	6.4	B2/1000		
BM	(30°-60°)	806.5	8.9	B1/1000		
BH	(60°-80°)	455.4	5.0	B1/500		G1/500
BVH	(80°-90°)	39.0	0.4			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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1936.2	1936.2	1936.2	1936.2	1936.2	1936.2	1936.2	1936.2	1936.2	1936.2	1936.2
2.5°	1965.9	1971.0	1964.8	1963.8	1963.8	1962.8	1956.7	1955.6	1947.5	1948.5	1950.5
5°	1980.3	1982.3	1978.2	1977.2	1975.2	1971.0	1965.9	1959.7	1953.6	1947.5	1942.3
7.5°	1994.6	1992.6	1989.5	1989.5	1986.4	1980.3	1970.0	1961.8	1948.5	1941.3	1932.1
10°	2015.1	2012.0	2007.9	2005.9	2000.8	1991.5	1977.2	1965.9	1949.5	1935.2	1919.8
12.5°	2034.5	2033.5	2027.4	2024.3	2016.1	2006.9	1989.5	1972.0	1950.5	1928.0	1907.5
15°	2069.3	2065.2	2059.1	2052.9	2039.6	2027.4	2000.8	1980.3	1949.5	1919.8	1888.1
17.5°	2129.8	2122.6	2116.4	2103.1	2086.7	2065.2	2026.3	1991.5	1949.5	1906.5	1870.7
20°	2240.3	2224.9	2216.8	2199.4	2170.7	2131.8	2071.4	2015.1	1952.6	1897.3	1849.2
22.5°	2365.2	2355.0	2343.7	2332.5	2287.5	2231.1	2149.2	2065.2	1971.0	1893.2	1831.8
25°	2505.5	2492.2	2486.1	2466.6	2424.7	2360.1	2248.5	2131.8	2013.0	1909.6	1831.8
27.5°	2630.4	2626.3	2625.3	2602.8	2562.9	2487.1	2355.0	2214.7	2070.3	1943.4	1847.2
30°	2744.1	2740.0	2738.0	2725.7	2679.6	2589.5	2446.2	2288.5	2132.9	1990.5	1875.8
32.5°	2864.9	2851.6	2845.4	2821.9	2769.7	2664.2	2500.4	2336.6	2182.0	2036.6	1907.5
35°	2963.2	2951.9	2939.6	2905.9	2832.1	2707.3	2523.9	2352.9	2201.4	2062.2	1923.9
37.5°	3034.9	3023.6	3006.3	2963.2	2872.1	2721.6	2522.9	2347.8	2194.2	2058.1	1927.0
40°	3066.6	3055.4	3036.9	2982.6	2879.3	2713.4	2503.5	2324.3	2172.8	2036.6	1914.7
42.5°	3054.3	3046.2	3022.6	2970.3	2856.8	2676.5	2464.6	2280.3	2131.8	2001.8	1887.1
45°	3007.3	3001.1	2978.5	2923.3	2805.5	2617.1	2407.2	2224.9	2082.6	1958.7	1850.2
47.5°	2936.6	2934.5	2912.0	2857.8	2741.0	2557.7	2347.8	2170.7	2033.5	1916.8	1819.5
50°	2858.8	2848.5	2837.2	2787.1	2680.6	2506.5	2304.9	2136.9	2005.9	1901.4	1806.2
52.5°	2809.6	2806.5	2796.3	2751.3	2648.9	2476.9	2285.4	2124.7	2003.8	1898.3	1799.0
55°	3245.8	3253.0	3158.8	2963.2	2791.2	2558.7	2343.7	2187.1	2054.0	1947.5	1874.8
57.5°	4801.1	4769.4	4607.6	4219.6	3781.3	3202.8	2786.1	2533.1	2368.3	2386.7	2423.6
60°	5593.6	5587.5	5557.8	5407.3	5115.5	4675.2	4186.8	3626.7	3448.6	3468.0	3482.3
62.5°	5947.9	5957.2	5979.7	5923.3	5846.5	5718.5	5474.8	5249.6	5011.0	4922.0	4683.4
65°	6111.8	6128.1	6179.3	6211.0	6240.8	6263.3	6359.5	6623.7	6797.7	6472.1	5714.5
67.5°	5772.8	5851.7	6020.6	6185.4	6332.9	6542.8	6868.4	7481.7	7908.7	7508.3	6409.7
70°	4208.3	4315.8	4509.3	5019.2	5563.9	6040.0	6670.8	7604.6	8248.6	7939.4	6581.7
72.5°	2638.6	2668.3	2754.3	2941.7	3346.2	3957.4	5060.2	6460.9	7204.2	6957.5	5562.9
75°	1674.1	1684.4	1681.2	1724.3	1792.8	1926.0	2362.2	3816.1	4935.3	4550.3	3100.4
77.5°	997.3	1012.7	1018.8	1032.1	1064.8	1112.0	1147.8	1298.3	2069.3	2008.9	1125.3
80°	835.5	847.8	837.6	834.5	814.1	799.6	817.1	799.6	742.3	714.7	658.4
82.5°	442.3	441.3	438.2	467.9	528.4	575.4	611.3	603.1	545.8	464.8	394.2
85°	242.7	250.9	250.9	261.1	251.9	252.9	261.1	275.4	255.0	212.9	174.0
87.5°	20.5	31.7	25.6	31.7	43.0	30.7	29.7	29.7	25.6	18.4	16.4
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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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1936.2	1936.2	1936.2	1936.2	1936.2	1936.2	1936.2	1936.2	1936.2	1936.2	1936.2
2.5°	1945.4	1943.4	1939.3	1936.2	1936.2	1931.1	1928.0	1926.0	1924.9	1920.8	1920.8
5°	1939.3	1932.1	1924.9	1919.8	1916.8	1911.6	1903.5	1899.4	1894.2	1890.2	1888.1
7.5°	1926.0	1912.7	1901.4	1893.2	1883.0	1874.8	1864.6	1855.4	1846.2	1842.1	1840.0
10°	1905.5	1888.1	1870.7	1855.4	1841.0	1826.6	1813.3	1800.0	1788.8	1780.6	1772.4
12.5°	1886.1	1859.5	1836.9	1814.3	1791.8	1774.4	1756.0	1736.6	1720.2	1704.8	1700.8
15°	1859.5	1828.8	1800.0	1772.4	1744.8	1716.1	1693.6	1672.0	1645.4	1628.0	1614.7
17.5°	1834.9	1798.0	1763.2	1730.4	1696.7	1666.9	1633.1	1604.5	1577.9	1551.3	1531.7
20°	1808.2	1768.3	1731.5	1694.6	1657.7	1619.8	1580.9	1544.1	1511.3	1479.5	1447.8
22.5°	1784.7	1743.7	1707.9	1667.9	1627.0	1584.0	1539.0	1492.8	1455.0	1414.1	1377.1
25°	1770.3	1725.3	1688.5	1649.5	1604.5	1557.4	1506.1	1451.9	1405.9	1358.7	1314.7
27.5°	1770.3	1712.0	1674.1	1635.2	1589.1	1539.0	1482.6	1423.3	1371.0	1318.8	1264.6
30°	1785.7	1714.1	1662.8	1621.9	1574.8	1520.5	1458.1	1395.6	1338.2	1276.8	1224.6
32.5°	1800.0	1718.2	1654.6	1602.4	1548.2	1494.9	1431.5	1364.8	1301.4	1243.0	1187.7
35°	1809.2	1718.2	1639.3	1572.8	1511.3	1459.1	1396.7	1330.1	1265.6	1208.2	1157.0
37.5°	1810.2	1710.0	1614.7	1539.0	1474.4	1420.2	1360.8	1298.3	1236.8	1183.6	1140.7
40°	1800.0	1693.6	1590.1	1503.1	1435.5	1380.2	1326.0	1269.7	1214.3	1170.3	1133.5
42.5°	1781.6	1676.1	1566.6	1474.4	1403.8	1346.4	1296.3	1248.2	1200.0	1162.1	1131.4
45°	1754.0	1652.6	1545.1	1457.0	1387.4	1327.0	1277.9	1237.9	1196.9	1165.2	1134.5
47.5°	1729.4	1644.4	1552.3	1468.3	1395.6	1333.1	1283.0	1249.2	1217.4	1195.9	1154.0
50°	1724.3	1640.3	1555.4	1477.5	1403.8	1340.3	1296.3	1278.9	1269.7	1256.4	1191.8
52.5°	1710.0	1639.3	1577.9	1534.8	1487.7	1458.1	1412.0	1428.4	1418.1	1371.0	1254.3
55°	1860.5	1880.9	1938.2	2020.2	2095.9	2113.3	2108.2	2088.8	1985.4	1707.9	1404.8
57.5°	2557.7	2673.4	2782.0	2830.1	2823.9	2769.7	2730.8	2651.9	2502.4	2164.6	1701.8
60°	3526.3	3544.8	3487.5	3402.4	3259.1	3139.3	3011.4	2863.9	2646.8	2316.1	1884.0
62.5°	4418.2	4170.4	3915.5	3675.8	3457.8	3267.3	3089.1	2883.4	2600.8	2255.6	1860.5
65°	5047.9	4523.7	4121.2	3777.2	3469.0	3202.8	2980.6	2713.4	2394.9	2083.6	1724.3
67.5°	5372.5	4568.7	3951.3	3472.1	3034.9	2666.2	2370.3	2110.2	1873.8	1737.6	1509.2
70°	5010.0	3877.6	3017.5	2475.8	1952.6	1565.6	1236.8	1038.2	969.7	1098.7	1142.7
72.5°	3733.2	2523.9	1794.9	1388.4	1063.8	847.8	650.1	510.9	415.7	436.2	566.2
75°	1765.2	1089.4	770.0	585.7	465.9	386.0	315.4	288.7	241.7	200.7	188.4
77.5°	687.1	500.7	413.7	303.1	215.0	173.0	147.4	142.3	145.4	141.3	139.3
80°	523.3	354.2	222.2	162.8	140.3	123.9	109.6	105.5	107.5	112.7	117.8
82.5°	291.8	182.2	135.2	117.8	105.5	90.1	82.0	75.8	76.8	83.0	94.2
85°	112.7	88.1	80.9	77.9	72.7	58.3	50.1	51.2	58.3	69.6	69.6
87.5°	12.3	12.3	16.4	12.3	12.3	12.3	11.3	13.3	14.3	18.4	21.5
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1936.2	1936.2	1936.2	1936.2	1936.2	1936.2	1936.2	1936.2	1936.2	1936.2	1936.2
2.5°	1918.8	1918.8	1918.8	1916.8	1917.8	1913.7	1913.7	1910.6	1915.7	1912.7	1911.6
5°	1889.1	1888.1	1884.0	1884.0	1884.0	1884.0	1887.1	1878.9	1885.0	1885.0	1882.0
7.5°	1839.0	1839.0	1827.6	1833.9	1831.8	1834.9	1839.0	1834.9	1841.0	1845.1	1842.1
10°	1769.3	1769.3	1760.1	1767.3	1764.2	1771.4	1778.5	1774.4	1778.5	1784.7	1786.7
12.5°	1692.6	1688.5	1680.2	1683.4	1683.4	1687.5	1690.5	1695.6	1700.8	1708.9	1713.0
15°	1603.5	1597.3	1587.1	1587.1	1580.9	1583.0	1589.1	1591.2	1601.4	1612.7	1626.0
17.5°	1512.3	1496.9	1485.7	1472.4	1462.1	1470.3	1477.5	1482.6	1490.8	1508.2	1517.4
20°	1426.3	1395.6	1374.1	1356.7	1345.4	1350.5	1359.7	1365.9	1373.0	1377.1	1380.2
22.5°	1341.3	1306.5	1276.8	1255.4	1236.8	1242.0	1237.9	1234.8	1239.9	1226.6	1225.6
25°	1267.6	1226.6	1186.7	1161.1	1138.6	1131.4	1110.0	1104.8	1090.4	1079.2	1071.0
27.5°	1214.3	1161.1	1117.1	1087.4	1051.5	1024.9	997.3	969.7	954.3	935.8	926.6
30°	1172.4	1116.1	1063.8	1013.7	966.6	925.6	888.7	852.9	828.4	801.7	784.3
32.5°	1133.5	1081.2	1017.8	949.1	885.7	839.6	791.4	750.5	711.6	676.8	651.2
35°	1106.9	1048.5	967.6	883.6	812.0	757.7	706.5	648.1	601.0	556.0	528.4
37.5°	1092.5	1020.8	921.5	828.4	748.5	687.1	623.5	556.0	498.6	456.7	414.7
40°	1081.2	993.2	880.6	779.2	695.3	621.5	547.8	467.9	404.5	360.4	327.6
42.5°	1068.9	962.5	844.7	740.3	647.1	561.1	472.0	387.1	326.6	295.9	281.6
45°	1055.6	935.8	811.0	703.4	600.0	495.5	393.2	314.3	278.5	268.3	268.3
47.5°	1052.6	918.4	786.3	667.6	546.8	419.8	320.5	271.4	261.1	263.2	267.3
50°	1064.8	913.3	764.8	625.6	476.1	339.9	271.4	255.0	257.0	263.2	269.3
52.5°	1094.5	917.4	742.3	567.3	392.2	280.6	250.9	249.9	256.0	265.2	271.4
55°	1144.8	917.4	699.4	480.2	313.3	251.9	243.7	247.8	256.0	264.2	269.3
57.5°	1252.3	908.2	623.5	384.0	262.1	241.7	241.7	246.8	254.0	262.1	266.2
60°	1380.2	895.9	517.1	296.9	236.6	233.5	240.7	246.8	252.9	260.1	264.2
62.5°	1388.4	864.2	409.6	245.8	223.3	228.4	239.6	247.8	249.9	255.0	260.1
65°	1275.8	753.6	325.6	220.2	217.0	225.3	236.6	242.7	243.7	245.8	250.9
67.5°	1117.1	614.3	263.2	207.8	210.9	220.2	226.3	231.4	234.5	239.6	240.7
70°	917.4	493.5	225.3	195.5	198.6	208.8	214.0	219.1	225.3	231.4	228.4
72.5°	650.1	384.0	197.6	182.2	186.3	195.5	201.7	205.8	210.9	217.0	212.9
75°	276.5	268.3	171.0	164.8	171.0	177.1	183.3	189.4	194.5	197.6	197.6
77.5°	141.3	157.7	147.4	147.4	151.5	157.7	162.8	168.9	172.0	175.1	179.2
80°	119.8	121.9	123.9	128.0	132.1	138.2	143.3	148.5	149.5	150.5	152.6
82.5°	99.3	103.4	105.5	111.6	114.7	116.7	119.8	119.8	121.9	121.9	118.8
85°	71.6	76.8	79.9	80.9	79.9	80.9	82.0	84.0	89.1	89.1	85.0
87.5°	20.5	19.4	24.6	25.6	27.6	31.7	35.8	43.0	45.0	47.1	47.1
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: P180893

CATALOG NUMBER: ICM-F04-LED-E1-SL4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1936.2	1936.2	1936.2	1936.2
2.5°	1910.6	1912.7	1908.6	1909.6
5°	1882.0	1886.1	1880.9	1887.1
7.5°	1845.1	1851.3	1850.2	1849.2
10°	1791.8	1800.0	1800.0	1803.1
12.5°	1724.3	1729.4	1733.5	1735.5
15°	1633.1	1642.3	1647.5	1647.5
17.5°	1523.5	1529.7	1532.8	1528.7
20°	1384.3	1382.2	1383.3	1373.0
22.5°	1223.5	1226.6	1217.4	1219.4
25°	1065.9	1060.8	1064.8	1058.7
27.5°	913.3	914.3	903.1	908.2
30°	767.9	762.8	748.5	755.6
32.5°	627.6	614.3	599.0	589.8
35°	495.5	475.1	467.9	464.8
37.5°	389.1	366.6	359.4	351.2
40°	309.2	301.0	298.0	300.0
42.5°	277.5	277.5	279.5	280.6
45°	269.3	272.4	275.4	276.5
47.5°	270.3	273.4	277.5	278.5
50°	272.4	275.4	278.5	279.5
52.5°	273.4	273.4	275.4	276.5
55°	271.4	270.3	271.4	272.4
57.5°	267.3	265.2	266.2	269.3
60°	265.2	262.1	264.2	266.2
62.5°	260.1	259.1	261.1	262.1
65°	248.8	249.9	252.9	252.9
67.5°	238.6	239.6	240.7	241.7
70°	226.3	227.4	229.4	230.4
72.5°	211.9	216.0	219.1	223.3
75°	200.7	204.7	210.9	215.0
77.5°	181.2	184.3	191.4	196.6
80°	153.6	152.6	153.6	156.7
82.5°	117.8	117.8	116.7	115.7
85°	83.0	82.0	78.9	78.9
87.5°	45.0	44.0	43.0	40.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)