

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: P226218

Luminaire Tested: **MLA-B3-LED-XX-T3-XX**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P226218
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29662)
Test Lab: INNOVATION CENTER-P2
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MLA-B3-LED-XX-T3-XX
Description: METROLINE ARCHITECTURAL LED LUMINAIRE
70 CRI, 4000K LEDS AND TYPE III DISTRIBUTION
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12086 lumens
Efficiency: N/A
Efficacy: 129.0 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 3.75' x H: 0.17')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B3 - U2 - G3

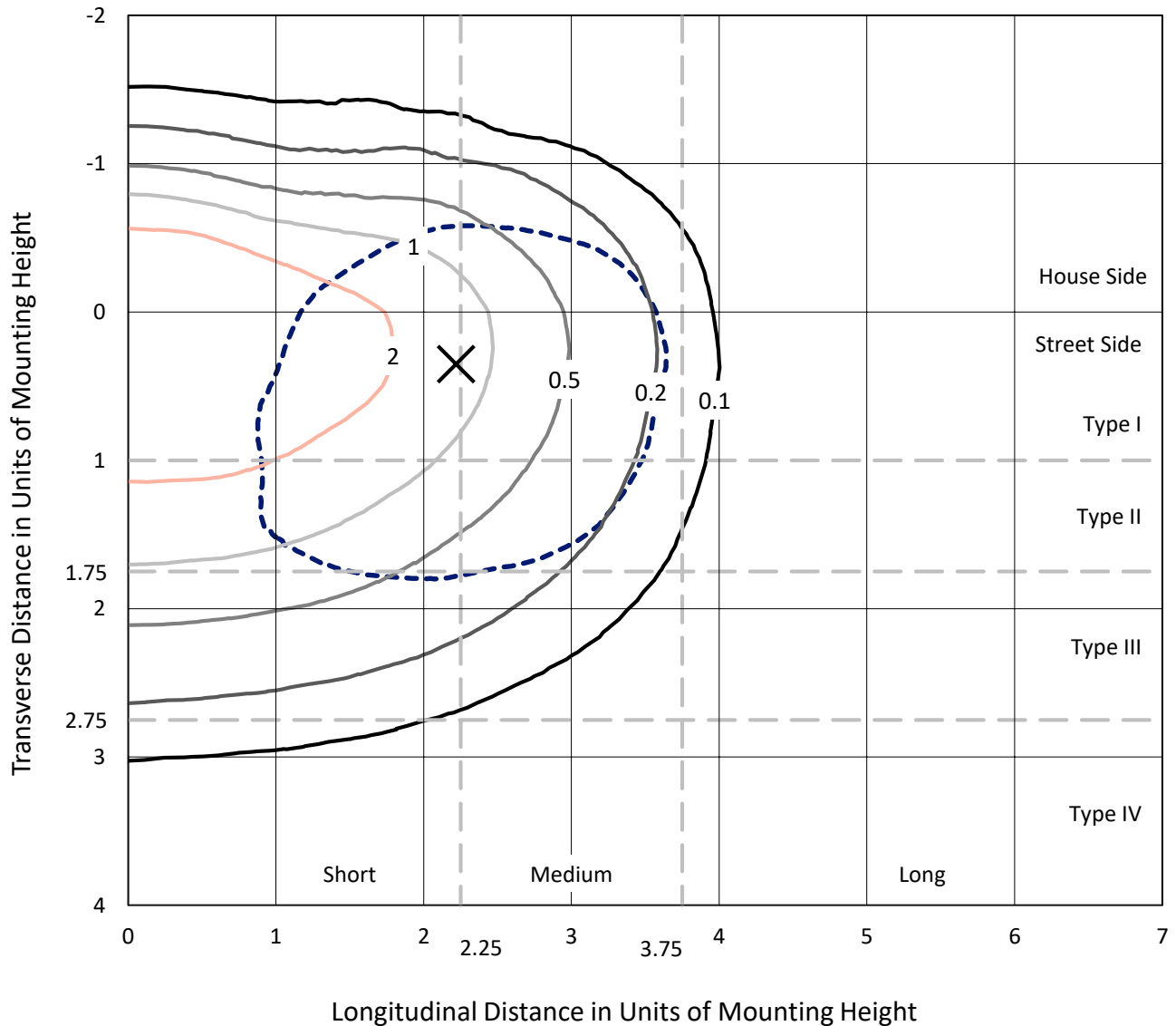
Input Watts (W): 93.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

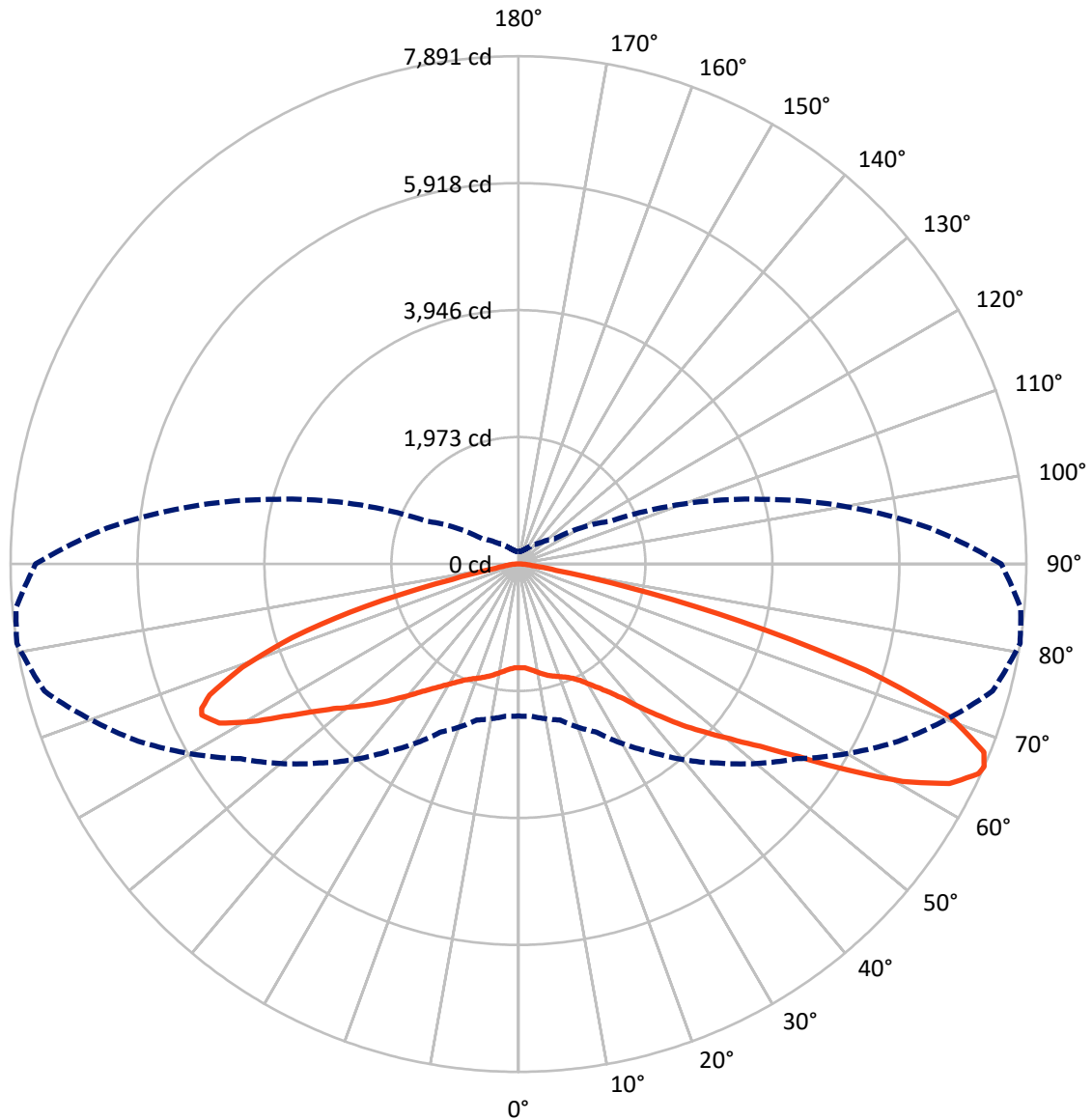
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.3 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 81-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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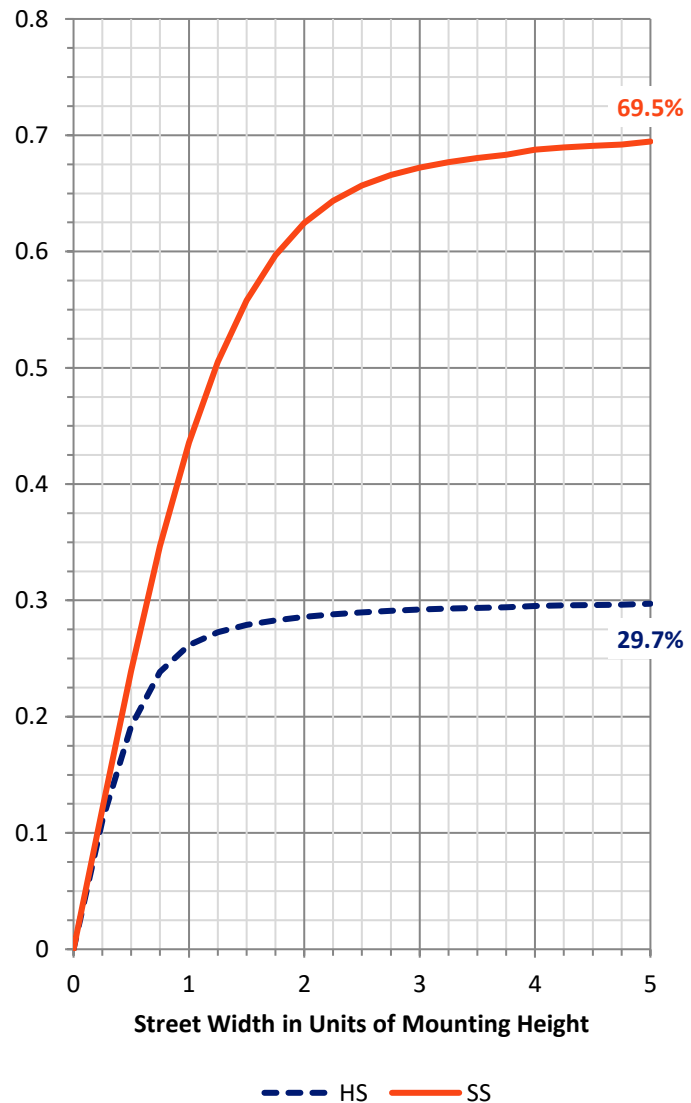
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3634.8	4.3	3639.1
	% Fixture	30.1	0.0	30.1
Street Side	Lumens	8440.5	6.4	8446.9
	% Fixture	69.8	0.1	69.9
Total	Lumens	12075.3	10.7	12086.0
	% Fixture	99.9	0.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.4	1.3
10°-20°	502.4	4.2
20°-30°	857.8	7.1
30°-40°	1282.6	10.6
40°-50°	1837.3	15.2
50°-60°	2518.7	20.8
60°-70°	3084.6	25.5
70°-80°	1565.2	13.0
80°-90°	268.0	2.2
90°-100°	10.5	0.1
100°-110°	0.2	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°	12075.3	99.9
0°-180°	12086.0	100.0



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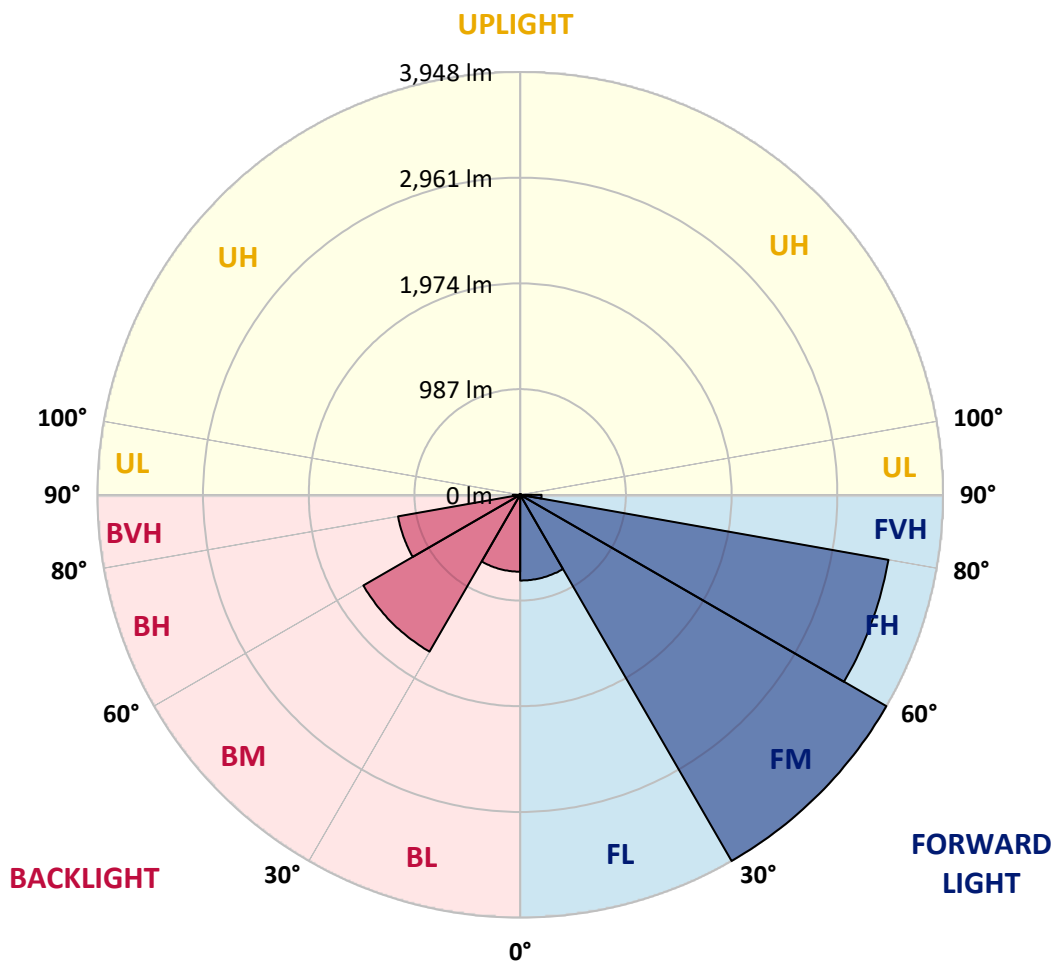
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	800.6	6.6			
FM	(30°-60°)	3948.1	32.7			
FH	(60°-80°)	3492.0	28.9			G2/5000
FVH	(80°-90°)	199.8	1.7			G2/225
BL	(0°-30°)	718.1	5.9	B2/1000		
BM	(30°-60°)	1690.6	14.0	B2/2500		
BH	(60°-80°)	1157.9	9.6	B3/2500		G3/2500
BVH	(80°-90°)	68.2	0.6			G1/100
UL	(90°-100°)	10.5	0.1		U2/50	
UH	(100°-180°)	4.3	0.0		U1/10	

BUG Rating: B3-U2-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	81°	85°
0°	1614.0	1614.0	1614.0	1614.0	1614.0	1614.0	1614.0	1614.0	1614.0	1614.0	1614.0
2.5°	1641.0	1636.0	1621.0	1618.0	1612.0	1624.0	1625.0	1625.0	1616.0	1612.0	1609.0
5°	1657.0	1652.0	1637.0	1636.0	1628.0	1642.0	1643.0	1641.0	1637.0	1637.0	1637.0
7.5°	1702.0	1696.0	1680.0	1671.0	1659.0	1669.0	1670.0	1670.0	1669.0	1671.0	1672.0
10°	1771.0	1758.0	1740.0	1724.0	1703.0	1708.0	1706.0	1710.0	1709.0	1715.0	1713.0
12.5°	1832.0	1823.0	1801.0	1783.0	1756.0	1755.0	1746.0	1746.0	1751.0	1759.0	1759.0
15°	1885.0	1879.0	1857.0	1841.0	1814.0	1802.0	1785.0	1785.0	1792.0	1799.0	1798.0
17.5°	1930.0	1929.0	1904.0	1893.0	1865.0	1852.0	1823.0	1820.0	1828.0	1832.0	1832.0
20°	1973.0	1970.0	1947.0	1934.0	1912.0	1906.0	1858.0	1850.0	1862.0	1869.0	1868.0
22.5°	2002.0	1996.0	1975.0	1964.0	1953.0	1955.0	1901.0	1883.0	1901.0	1911.0	1909.0
25°	2025.0	2021.0	1994.0	1990.0	1991.0	2010.0	1955.0	1940.0	1960.0	1968.0	1966.0
27.5°	2053.0	2048.0	2023.0	2015.0	2037.0	2077.0	2039.0	2018.0	2040.0	2051.0	2052.0
30°	2114.1	2110.0	2077.0	2065.0	2104.0	2179.1	2152.1	2131.1	2134.1	2165.1	2169.1
32.5°	2255.1	2249.1	2214.1	2192.1	2235.1	2331.1	2316.1	2288.1	2266.1	2296.1	2304.1
35°	2401.1	2395.1	2374.1	2363.1	2429.1	2552.1	2538.1	2500.1	2431.1	2452.1	2457.1
37.5°	2488.1	2495.1	2501.1	2533.1	2643.1	2806.1	2812.1	2762.1	2651.1	2656.1	2649.1
40°	2564.1	2572.1	2602.1	2689.1	2861.1	3052.1	3132.1	3062.1	2946.1	2935.1	2907.1
42.5°	2626.1	2643.1	2697.1	2837.1	3060.1	3285.1	3424.1	3360.1	3272.1	3235.1	3198.1
45°	2700.1	2712.1	2789.1	2978.1	3235.1	3504.1	3684.1	3651.1	3600.1	3572.1	3487.1
47.5°	2758.1	2779.1	2862.1	3088.1	3390.1	3704.1	3932.1	3956.1	3958.1	3900.1	3805.1
50°	2835.1	2861.1	2934.1	3184.1	3495.1	3862.1	4164.1	4263.1	4330.1	4272.1	4129.1
52.5°	2919.1	2952.1	3029.1	3311.1	3598.1	3984.1	4372.1	4577.1	4739.1	4704.1	4551.1
55°	3029.1	3058.1	3145.1	3464.1	3743.1	4128.1	4600.1	4960.1	5296.1	5281.1	5131.1
57.5°	3145.1	3161.1	3259.1	3606.1	3943.1	4370.1	4875.1	5485.1	6023.1	6039.1	5878.1
60°	3058.1	3072.1	3187.1	3596.1	4047.1	4603.1	5167.1	6088.1	6819.2	6858.2	6721.2
62.5°	2813.1	2826.1	2960.1	3406.1	3962.1	4648.1	5363.1	6494.2	7404.2	7513.2	7347.2
65°	2501.1	2515.1	2653.1	3046.1	3714.1	4493.1	5355.1	6590.2	7639.2	7857.2	7767.2
66°	2361.1	2374.1	2509.1	2883.1	3558.1	4373.1	5272.1	6514.2	7627.2	7891.2	7835.2
67.5°	2146.1	2113.1	2234.1	2629.1	3284.1	4130.1	5044.1	6334.1	7477.2	7800.2	7780.2
70°	1642.0	1614.0	1743.0	2090.0	2703.1	3555.1	4483.1	5724.1	6832.2	7115.2	7155.2
72.5°	1130.0	1110.0	1229.0	1525.0	2026.0	2777.1	3638.1	4714.1	5526.1	5646.1	5798.1
75°	797.0	785.0	856.0	1017.0	1359.0	1913.0	2682.1	3354.1	3617.1	3569.1	3720.1
77.5°	466.0	477.0	573.0	704.0	942.0	1205.0	1825.0	2064.0	1922.0	1712.0	1617.0
80°	231.0	233.0	318.0	421.0	671.0	910.0	1187.0	1338.0	1211.0	593.0	438.0
82.5°	107.0	117.0	157.0	194.0	299.0	658.0	1004.0	1279.0	1087.0	243.0	194.0
85°	46.0	61.0	101.0	120.0	126.0	263.0	820.0	1153.0	692.0	147.0	118.0
87.5°	14.0	33.0	69.0	84.0	76.0	96.0	307.0	526.0	251.0	73.0	66.0
90°	0.0	20.0	43.0	48.0	42.0	39.0	89.0	162.0	65.0	26.0	24.0
92.5°	0.0	9.0	24.0	23.0	17.0	11.0	13.0	13.0	4.0	3.0	3.0
95°	0.0	2.0	9.0	6.0	4.0	2.0	1.0	1.0	1.0	1.0	1.0
97.5°	0.0	0.0	1.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0
100°	0.0	0.0	1.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	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):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	81°	85°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1614.0	1614.0	1614.0	1614.0	1614.0	1614.0	1614.0	1614.0	1614.0	1614.0	1614.0
2.5°	1614.0	1612.0	1616.0	1621.0	1623.0	1625.0	1609.0	1609.0	1614.0	1633.0	1634.0
5°	1641.0	1637.0	1635.0	1637.0	1640.0	1643.0	1626.0	1625.0	1630.0	1648.0	1651.0
7.5°	1674.0	1671.0	1668.0	1665.0	1665.0	1667.0	1647.0	1644.0	1650.0	1668.0	1670.0
10°	1716.0	1712.0	1706.0	1702.0	1700.0	1697.0	1666.0	1655.0	1656.0	1673.0	1676.0
12.5°	1756.0	1755.0	1751.0	1752.0	1746.0	1731.0	1680.0	1653.0	1643.0	1655.0	1659.0
15°	1795.0	1795.0	1802.0	1809.0	1794.0	1758.0	1688.0	1640.0	1614.0	1623.0	1625.0
17.5°	1830.0	1834.0	1849.0	1858.0	1833.0	1783.0	1687.0	1615.0	1572.0	1573.0	1573.0
20°	1870.0	1874.0	1894.0	1897.0	1862.0	1797.0	1673.0	1573.0	1518.0	1512.0	1507.0
22.5°	1909.0	1916.0	1935.0	1930.0	1880.0	1796.0	1644.0	1526.0	1459.0	1448.0	1443.0
25°	1961.0	1973.0	1985.0	1962.0	1891.0	1778.0	1600.0	1473.0	1390.0	1370.0	1364.0
27.5°	2040.0	2052.0	2046.0	1994.0	1893.0	1740.0	1555.0	1408.0	1303.0	1273.0	1270.0
30°	2152.1	2153.1	2114.1	2025.0	1885.0	1702.0	1490.0	1321.0	1202.0	1169.0	1167.0
32.5°	2285.1	2264.1	2187.1	2048.0	1864.0	1643.0	1397.0	1216.0	1101.0	1068.0	1062.0
35°	2430.1	2400.1	2266.1	2073.0	1825.0	1551.0	1285.0	1109.0	1003.0	972.0	967.0
37.5°	2605.1	2558.1	2355.1	2090.0	1760.0	1433.0	1168.0	1003.0	899.0	868.0	861.0
40°	2830.1	2758.1	2457.1	2091.0	1661.0	1293.0	1049.0	890.0	790.0	758.0	755.0
42.5°	3100.1	2976.1	2560.1	2073.0	1546.0	1174.0	932.0	770.0	675.0	639.0	640.0
45°	3386.1	3230.1	2671.1	2038.0	1438.0	1039.0	794.0	648.0	563.0	536.0	535.0
47.5°	3679.1	3489.1	2789.1	1999.0	1318.0	910.0	671.0	534.0	468.0	454.0	446.0
50°	3984.1	3765.1	2906.1	1959.0	1184.0	783.0	553.0	441.0	387.0	373.0	368.0
52.5°	4366.1	4066.1	3019.1	1926.0	1054.0	659.0	456.0	369.0	320.0	305.0	301.0
55°	4913.1	4491.1	3156.1	1884.0	942.0	550.0	388.0	311.0	272.0	258.0	254.0
57.5°	5625.1	5018.1	3337.1	1827.0	841.0	478.0	337.0	274.0	248.0	234.0	231.0
60°	6421.2	5636.1	3607.1	1771.0	759.0	440.0	310.0	260.0	235.0	221.0	219.0
62.5°	7128.2	6168.1	3908.1	1720.0	716.0	432.0	309.0	255.0	224.0	209.0	207.0
65°	7485.2	6440.2	3968.1	1637.0	695.0	453.0	329.0	254.0	215.0	198.0	196.0
66°	7502.2	6418.2	3889.1	1576.0	679.0	460.0	337.0	253.0	211.0	194.0	192.0
67.5°	7362.2	6238.1	3670.1	1423.0	638.0	457.0	345.0	251.0	205.0	187.0	186.0
70°	6666.2	5565.1	3093.1	1106.0	540.0	415.0	329.0	241.0	194.0	176.0	173.0
72.5°	5350.1	4559.1	2394.1	792.0	445.0	361.0	300.0	227.0	184.0	165.0	162.0
75°	3438.1	3033.1	1633.0	569.0	377.0	316.0	264.0	216.0	173.0	153.0	151.0
77.5°	1209.0	1181.0	857.0	439.0	327.0	273.0	228.0	194.0	157.0	125.0	119.0
80°	314.0	330.0	396.0	377.0	276.0	228.0	189.0	165.0	135.0	99.0	97.0
82.5°	170.0	182.0	245.0	299.0	222.0	181.0	150.0	126.0	107.0	80.0	74.0
85°	108.0	114.0	159.0	182.0	145.0	134.0	111.0	91.0	79.0	51.0	46.0
87.5°	68.0	79.0	101.0	98.0	75.0	57.0	74.0	61.0	55.0	31.0	23.0
90°	20.0	27.0	40.0	41.0	31.0	23.0	36.0	36.0	35.0	17.0	0.0
92.5°	2.0	2.0	3.0	7.0	8.0	9.0	15.0	19.0	19.0	4.0	0.0
95°	1.0	1.0	1.0	2.0	3.0	4.0	5.0	8.0	8.0	1.0	0.0
97.5°	1.0	1.0	2.0	2.0	2.0	2.0	1.0	2.0	1.0	0.0	0.0
100°	1.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P226218

CATALOG NUMBER: MLA-B3-LED-XX-T3-XX

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)