

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: P226223

Luminaire Tested: **MLA-B1-LED-XX-T4-8030-XX**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P226223  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29663)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MLA-B1-LED-XX-T4-8030-XX  
Description: METROLINE ARCHITECTURAL LED LUMINAIRE  
80 CRI, 3000K LEDS AND TYPE IV DISTRIBUTION  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4543 lumens  
Efficiency: N/A  
Efficacy: 107.9 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 3.75' x H: 0.17')  
IES Classification: Type IV - Short - Cutoff  
BUG Rating: B1 - U1 - G1

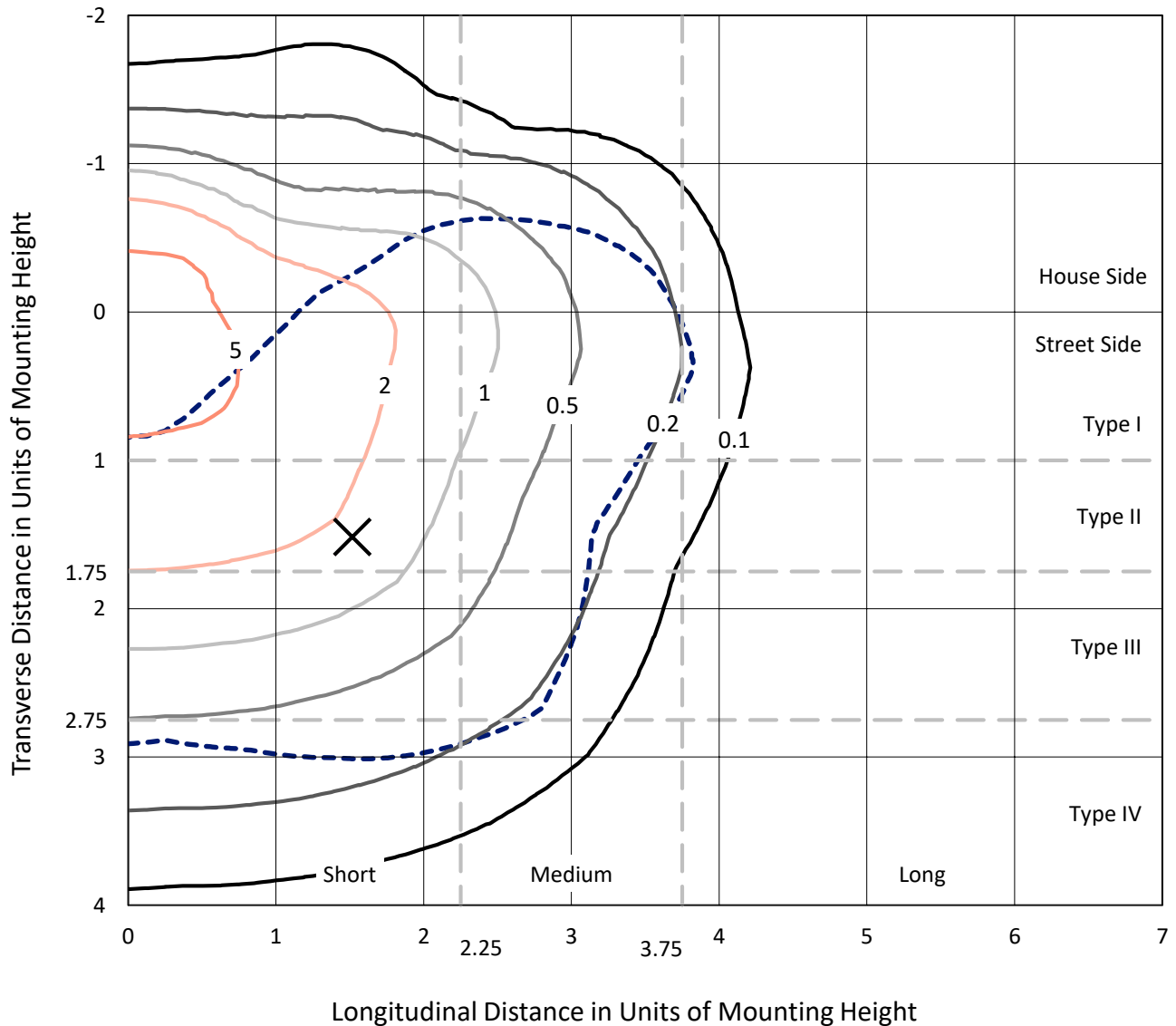
Input Watts (W): 42.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

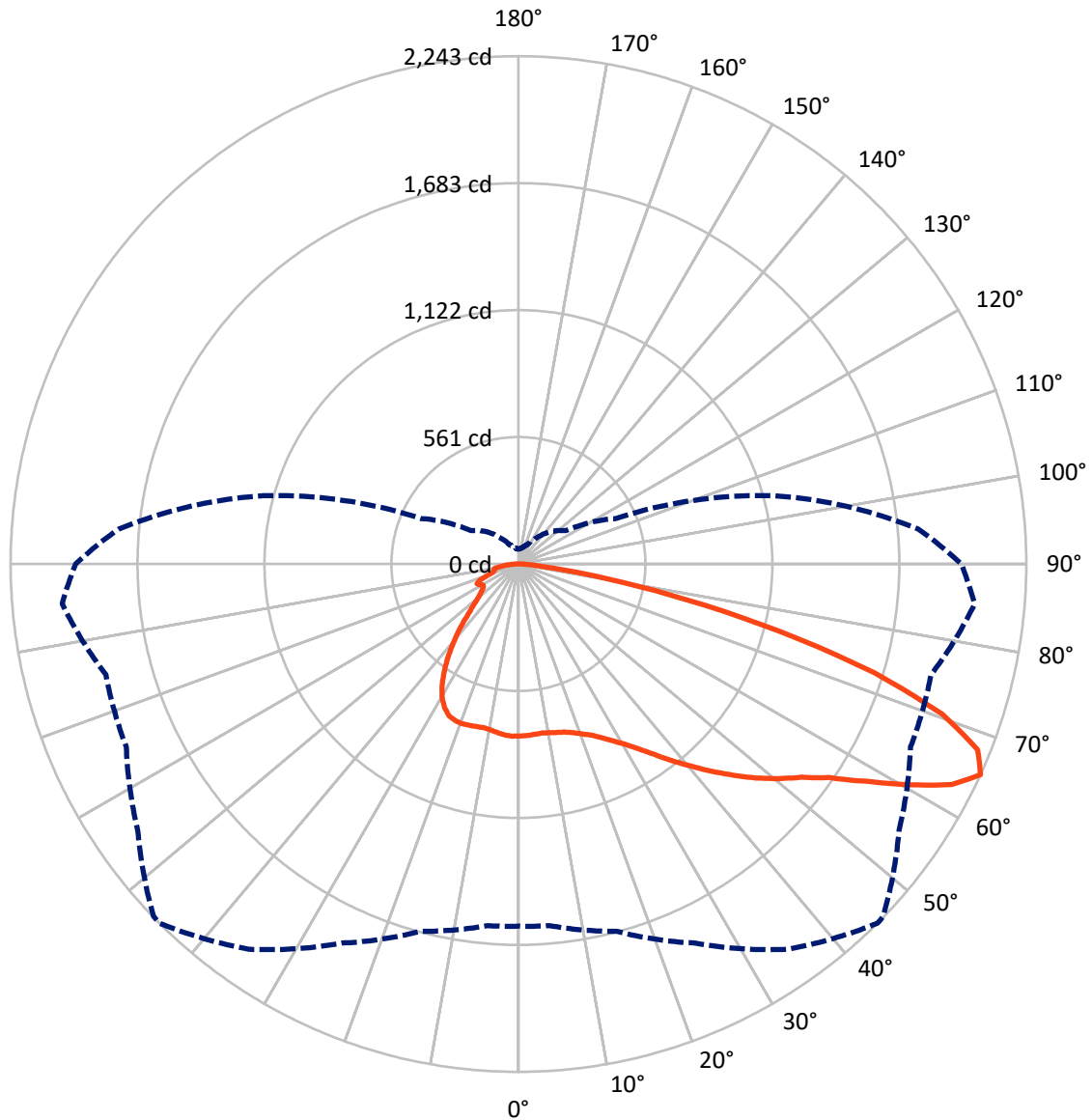
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.6 fc  
 Type IV - Short - Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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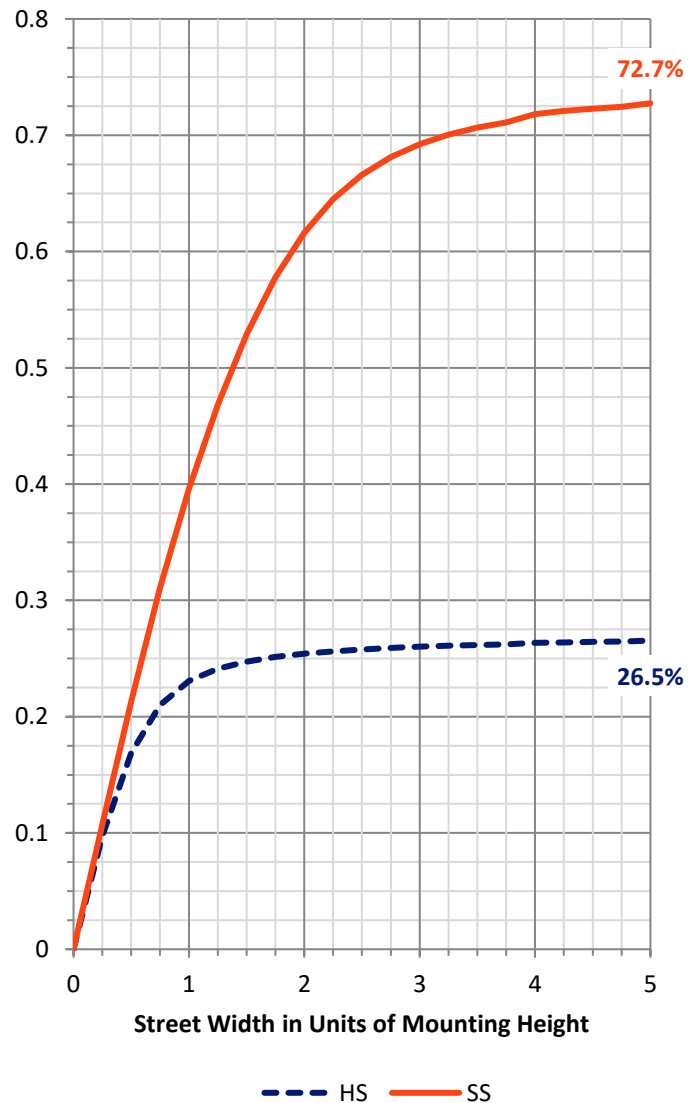
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1222.6	1.9	1224.5
	% Fixture	26.9	0.0	27.0
<b>Street Side</b>	Lumens	3316.3	2.2	3318.5
	% Fixture	73.0	0.0	73.0
<b>Total</b>	Lumens	4538.9	4.1	4543.0
	% Fixture	99.9	0.1	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.9	1.6
10°-20°	212.9	4.7
20°-30°	355.0	7.8
30°-40°	501.5	11.0
40°-50°	652.0	14.4
50°-60°	876.7	19.3
60°-70°	1139.5	25.1
70°-80°	647.6	14.3
80°-90°	81.8	1.8
90°-100°	4.0	0.1
100°-110°	0.1	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°	4538.9	99.9
0°-180°	4543.0	100.0



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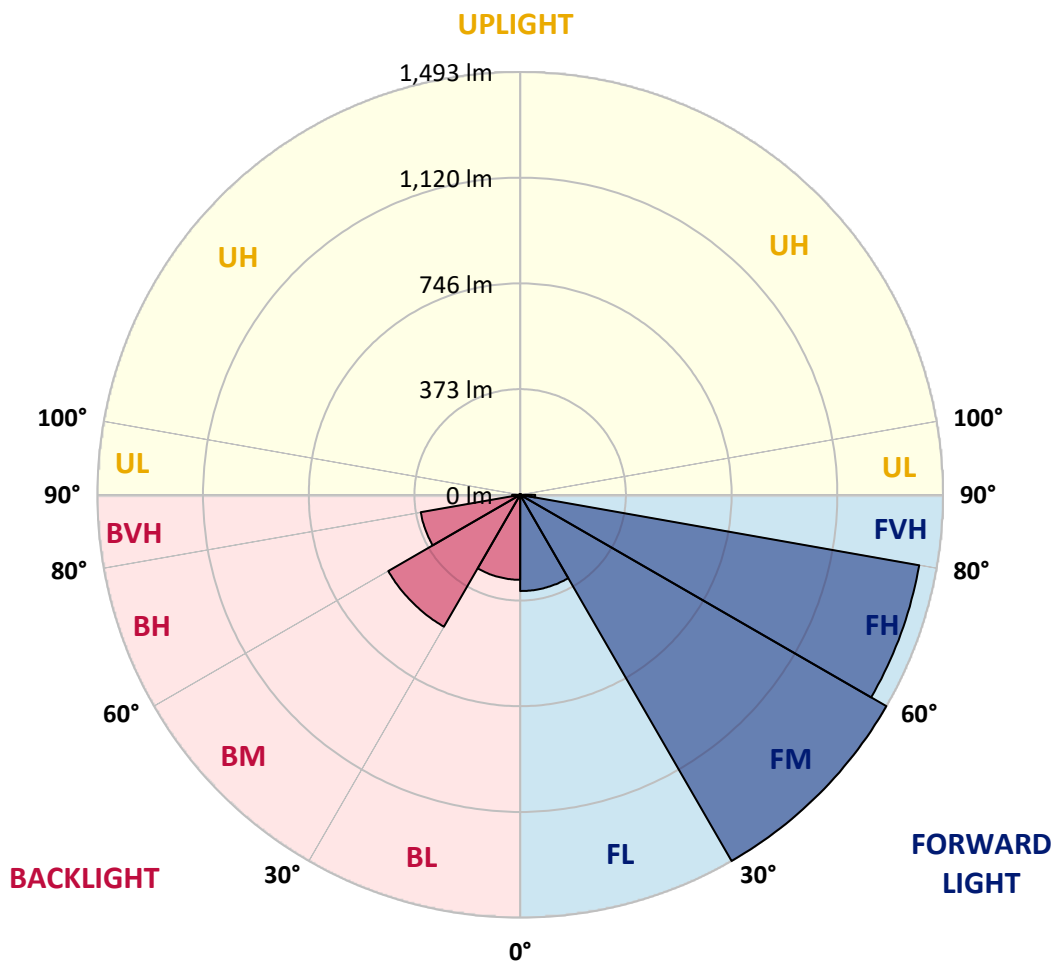
CATALOG NUMBER: MLA-B1-LED-XX-T4-8030-XX

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	339.8	7.5			
FM	(30°-60°)	1492.7	32.9			
FH	(60°-80°)	1430.6	31.5			G1/1800
FVH	(80°-90°)	53.3	1.2			G1/100
BL	(0°-30°)	300.0	6.6	B1/500		
BM	(30°-60°)	537.6	11.8	B1/1000		
BH	(60°-80°)	356.5	7.8	B1/500		G1/500
BVH	(80°-90°)	28.5	0.6			G1/100
UL	(90°-100°)	4.0	0.1		U1/10	
UH	(100°-180°)	1.9	0.0		U1/10	

**BUG Rating: B1-U1-G1**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	759.6	759.6	759.6	759.6	759.6	759.6	759.6	759.6	759.6	759.6	759.6
2.5°	763.4	761.9	756.6	755.1	753.6	758.5	761.1	760.4	761.1	757.7	755.8
5°	752.4	751.7	746.4	747.5	747.5	755.8	757.7	759.2	762.3	761.5	762.6
7.5°	746.0	744.5	740.4	741.5	743.8	754.0	755.8	760.0	764.9	767.2	767.5
10°	746.4	744.5	740.4	742.3	744.1	757.7	758.9	765.3	770.2	770.9	769.8
12.5°	754.0	752.4	747.2	748.7	750.2	763.4	765.3	770.9	776.2	775.5	772.1
15°	767.9	766.4	759.6	760.4	760.0	770.2	774.3	775.8	781.9	778.1	769.8
17.5°	788.7	788.3	780.7	780.4	777.0	783.4	785.6	781.9	784.9	776.6	763.8
20°	814.0	813.6	804.9	801.9	798.1	800.7	801.9	791.3	786.0	773.2	756.6
22.5°	841.5	840.4	832.1	827.9	821.9	820.7	821.5	801.9	789.0	772.4	754.0
25°	877.3	876.2	864.5	860.0	850.6	848.7	849.8	824.5	804.9	783.0	760.7
27.5°	908.3	907.9	900.7	893.9	885.6	883.4	884.5	858.1	833.2	808.3	782.3
30°	948.3	945.3	933.6	928.7	926.0	923.8	922.6	902.3	875.5	845.6	816.6
32.5°	985.6	983.4	972.4	970.2	971.7	972.1	970.2	951.3	924.5	890.6	855.5
35°	1030.9	1028.3	1016.6	1018.5	1027.2	1032.8	1033.6	1011.7	978.5	935.1	891.3
37.5°	1071.3	1070.2	1066.4	1075.1	1091.3	1102.6	1099.2	1083.4	1037.7	980.4	920.7
40°	1114.3	1113.9	1113.6	1134.3	1163.8	1173.6	1172.1	1157.3	1100.7	1034.3	961.9
42.5°	1159.6	1160.0	1161.9	1195.1	1237.0	1250.9	1248.7	1230.2	1167.2	1101.5	1015.1
45°	1210.2	1214.3	1217.7	1257.3	1310.5	1330.9	1328.7	1304.1	1232.1	1171.7	1073.2
47.5°	1264.5	1270.2	1272.8	1319.2	1381.5	1412.1	1406.8	1375.5	1292.1	1238.8	1133.9
50°	1333.6	1338.5	1340.0	1386.8	1454.7	1489.8	1485.6	1446.8	1352.1	1306.4	1212.4
52.5°	1410.5	1418.5	1421.1	1468.7	1531.3	1564.9	1561.9	1520.4	1421.1	1379.2	1307.2
55°	1501.5	1512.8	1520.0	1572.1	1632.8	1665.6	1660.7	1609.0	1516.2	1466.0	1420.7
57.5°	1594.7	1598.1	1624.5	1694.3	1770.5	1810.5	1800.7	1720.0	1631.3	1569.4	1551.7
60°	1624.9	1625.6	1673.2	1777.0	1905.6	1980.0	1968.7	1849.8	1781.1	1700.4	1713.2
62.5°	1637.3	1641.9	1708.3	1853.2	2035.1	2147.1	2140.3	1980.0	1890.9	1830.5	1893.6
65°	1599.6	1603.8	1679.6	1847.5	2077.3	2243.4	2240.3	2052.4	1911.3	1887.1	2023.0
67.5°	1449.8	1473.2	1562.6	1743.0	1992.8	2187.9	2187.9	2005.6	1832.8	1870.2	2042.6
70°	1237.7	1225.3	1329.4	1516.6	1779.2	1985.6	1991.7	1837.3	1652.8	1715.4	1900.0
72.5°	947.5	942.3	1041.1	1206.4	1431.3	1644.1	1654.7	1531.3	1343.0	1416.6	1638.8
75°	715.8	704.5	777.3	893.9	1041.5	1195.1	1209.4	1102.6	940.7	1045.3	1226.0
77.5°	421.9	434.0	492.4	576.6	704.5	758.9	770.9	678.1	539.6	617.3	623.4
80°	189.4	190.2	246.8	300.0	369.8	396.6	387.9	343.8	258.9	279.6	165.7
82.5°	64.9	74.7	117.0	140.0	167.9	158.5	154.7	149.4	140.4	152.5	75.8
85°	20.8	32.1	61.9	74.0	79.2	68.7	67.5	74.0	95.8	114.0	50.9
87.5°	3.8	12.5	35.5	41.9	42.6	32.1	30.9	38.9	60.4	72.1	29.1
90°	0.0	7.2	18.5	20.4	18.9	13.6	12.8	16.2	26.4	27.2	9.4
92.5°	0.0	2.6	8.3	8.7	6.4	3.8	3.4	3.4	3.8	2.6	2.3
95°	0.0	0.4	2.6	1.9	1.5	1.1	1.1	1.1	1.1	1.1	1.1
97.5°	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.1	1.1
100°	0.0	0.4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.1	1.1
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
110°	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: MLA-B1-LED-XX-T4-8030-XX

**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
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°	759.6	759.6	759.6	759.6	759.6	759.6	759.6	759.6	759.6	759.6	759.6
2.5°	756.6	756.2	757.3	760.7	760.7	761.1	754.3	754.0	755.8	763.4	763.4
5°	764.1	763.4	761.1	760.7	760.0	757.7	750.6	748.3	749.8	756.2	756.2
7.5°	767.9	765.6	761.5	757.3	754.0	750.6	741.1	738.5	740.0	746.4	746.0
10°	768.7	764.5	757.7	750.9	746.4	742.6	729.8	727.5	728.7	735.5	735.8
12.5°	767.9	761.9	752.4	746.4	742.6	739.2	724.1	718.1	715.1	721.1	720.7
15°	763.8	757.0	748.3	746.8	745.6	741.1	720.4	706.4	698.5	702.3	701.9
17.5°	757.0	751.3	746.0	751.7	754.3	745.3	715.8	693.2	681.5	682.3	680.7
20°	749.4	742.6	743.4	757.0	761.9	747.5	709.8	677.7	661.5	658.5	656.2
22.5°	743.8	737.0	743.0	763.0	766.0	745.6	698.1	657.3	635.1	630.6	630.2
25°	747.2	740.4	750.9	767.9	765.6	737.0	679.6	636.2	607.9	602.3	601.5
27.5°	762.6	753.2	763.8	770.9	757.3	715.1	655.1	607.9	578.1	570.2	569.4
30°	789.0	772.8	773.6	766.8	737.3	683.4	621.9	570.6	540.7	530.9	532.4
32.5°	820.0	795.1	777.3	748.3	700.4	637.3	574.3	523.0	498.1	489.8	490.2
35°	849.4	817.7	775.8	718.9	650.9	578.9	517.4	474.7	450.6	443.8	445.3
37.5°	877.7	840.7	768.3	677.0	590.2	517.7	459.2	417.4	396.6	389.8	390.6
40°	916.2	870.6	757.3	629.4	527.9	450.9	395.8	357.4	340.7	334.7	336.6
42.5°	964.1	907.5	747.2	582.6	470.2	389.1	332.8	301.1	285.7	281.1	282.6
45°	1014.3	950.6	739.2	539.6	417.0	324.5	281.1	251.3	235.1	230.2	230.9
47.5°	1072.8	998.1	744.5	508.7	368.7	275.8	236.6	206.8	189.4	183.0	183.4
50°	1144.5	1064.5	764.5	492.1	319.2	239.6	201.9	170.2	150.2	141.9	139.6
52.5°	1240.0	1143.0	796.2	488.7	282.6	213.6	171.7	140.0	120.0	110.9	109.8
55°	1346.8	1229.8	836.6	487.5	258.1	195.5	149.1	116.6	98.1	89.1	87.9
57.5°	1467.5	1332.1	882.6	480.4	245.3	183.8	134.3	102.6	87.2	78.5	77.0
60°	1631.7	1470.9	966.0	480.0	243.8	181.9	129.8	99.2	82.6	72.8	71.7
62.5°	1827.9	1647.1	1087.9	486.8	255.1	192.8	136.2	98.5	79.6	69.8	68.7
65°	1956.6	1772.4	1165.3	476.2	256.6	202.6	142.3	95.1	76.2	67.2	66.0
67.5°	1961.1	1770.5	1128.3	413.6	220.8	185.7	135.1	89.8	72.8	64.5	63.8
70°	1816.2	1633.2	997.7	320.0	177.0	147.9	116.6	81.9	68.3	60.8	60.0
72.5°	1549.4	1387.1	817.0	240.0	141.5	120.4	101.9	76.2	63.4	56.2	55.8
75°	1107.2	989.0	594.0	187.9	122.6	110.2	94.0	75.5	60.0	52.8	51.7
77.5°	492.4	420.0	329.8	165.3	117.7	110.2	90.2	73.6	56.6	46.8	45.7
80°	126.8	132.8	170.2	155.8	114.3	106.0	84.1	67.2	52.1	39.6	38.5
82.5°	70.9	72.1	105.7	123.0	95.5	81.5	71.7	55.1	44.5	33.2	31.7
85°	49.4	47.2	63.4	67.9	55.1	55.5	51.7	40.8	34.0	23.8	21.1
87.5°	26.8	28.3	33.6	29.4	26.8	26.8	34.0	28.3	24.5	13.6	9.4
90°	7.9	10.6	17.0	14.7	13.2	11.3	17.4	16.2	15.1	7.2	0.0
92.5°	2.3	1.9	3.0	3.4	3.8	3.8	6.4	7.2	7.5	2.3	0.0
95°	1.1	0.8	0.8	0.4	1.1	1.5	2.3	2.6	3.0	0.8	0.0
97.5°	1.1	1.1	0.8	0.8	0.4	0.4	0.8	0.8	0.8	0.0	0.0
100°	1.1	1.1	0.8	0.8	0.8	0.4	0.4	0.4	0.4	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
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P226223

CATALOG NUMBER: MLA-B1-LED-XX-T4-8030-XX

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
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)