

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: P154311

Luminaire Tested: **VXM-E01-LED-E1-T2-7050**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P154311
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33671)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: VXM-E01-LED-E1-T2-7050
Description: VISION SITE MEDIUM LED LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 2
Light Source: (21) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3143.8 lumens
Efficiency: N/A
Efficacy: 127.3 lumens/watt
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 24.7
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



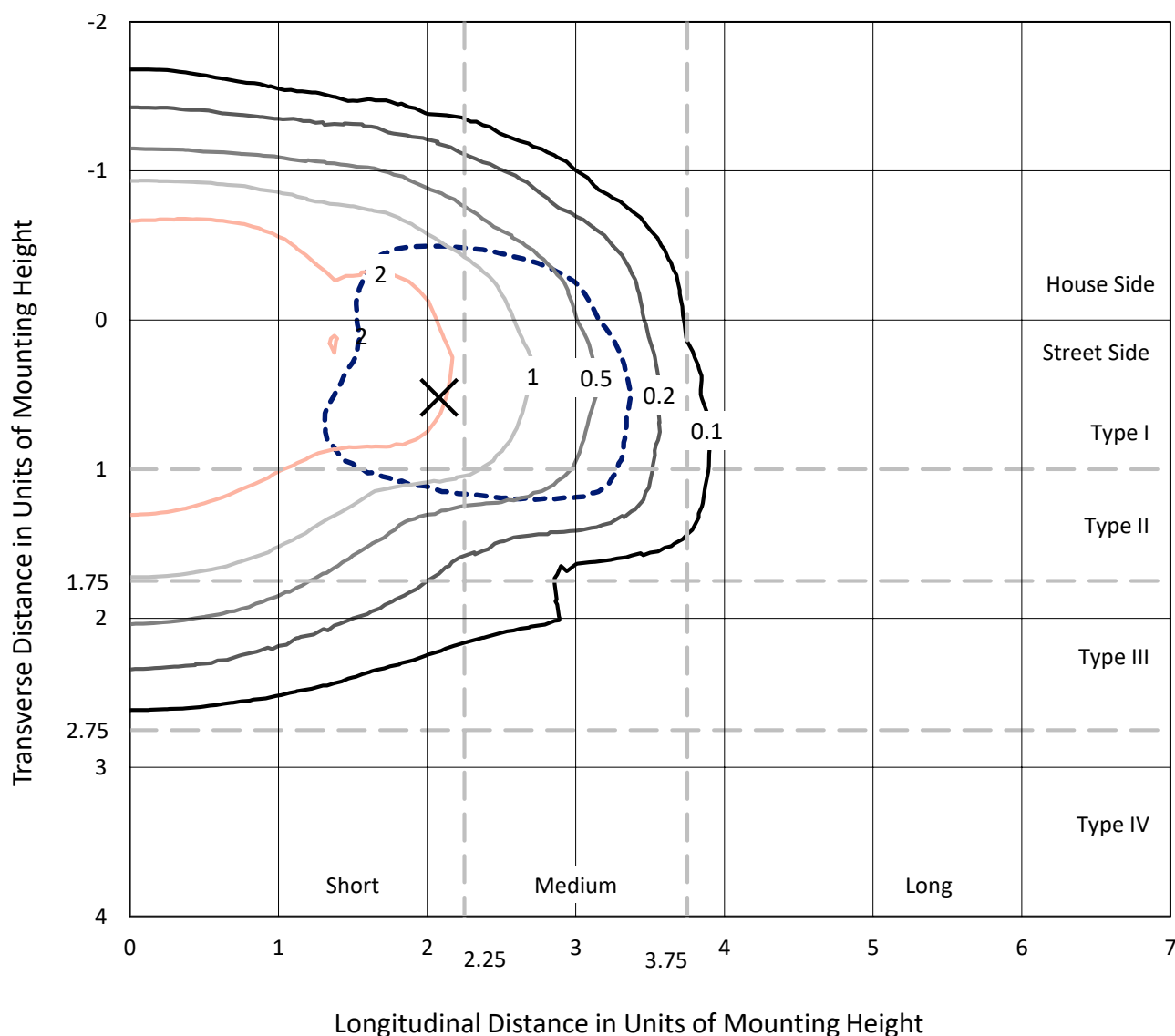
REPORT NUMBER: P154311

CATALOG NUMBER: VXM-E01-LED-E1-T2-7050

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

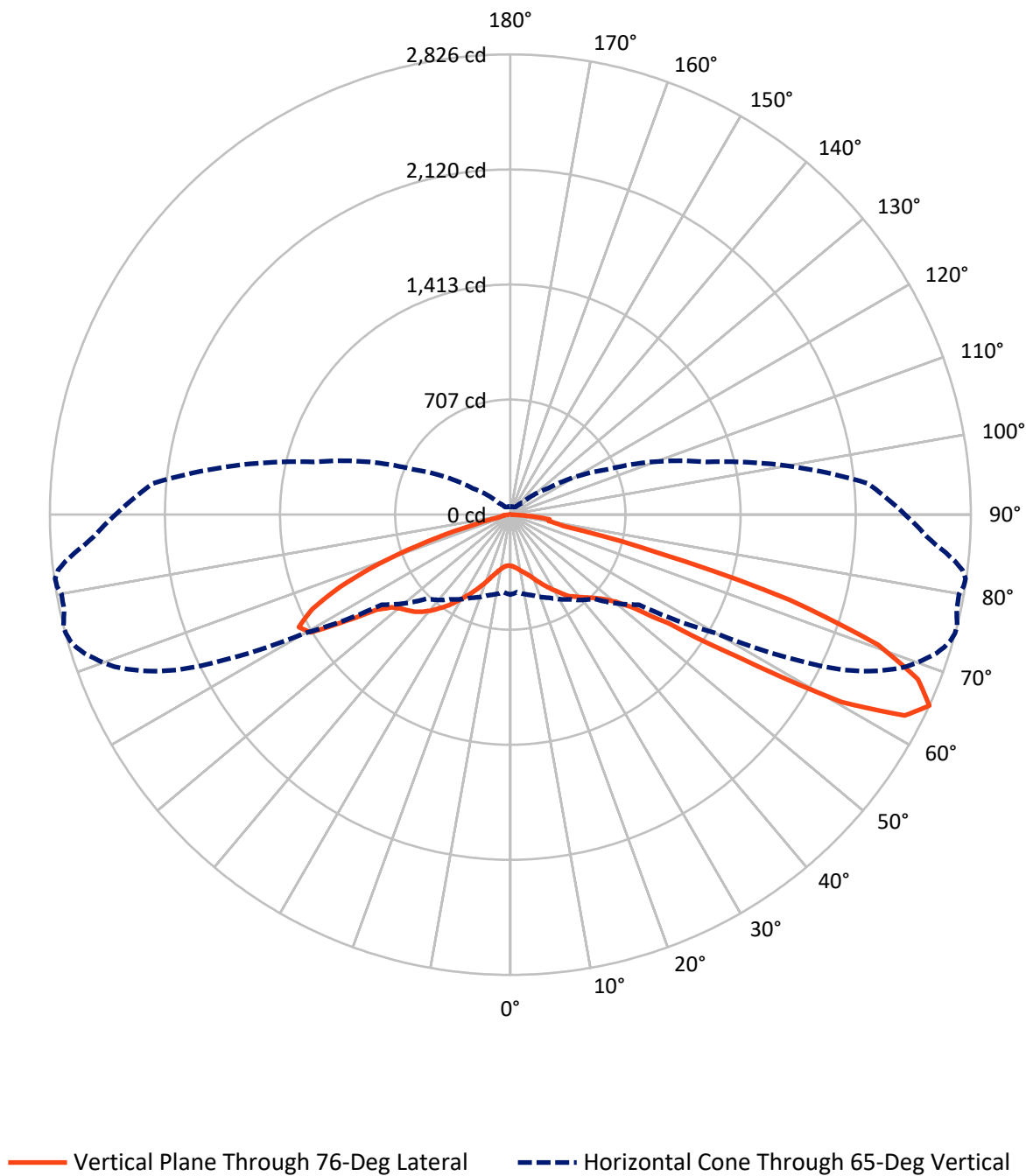


Based on 10 foot mounting height. Maximum calculated value = 3.8 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P154311

CATALOG NUMBER: VXM-E01-LED-E1-T2-7050

Luminous Intensity Polar Plot



REPORT NUMBER: P154311

CATALOG NUMBER: VXM-E01-LED-E1-T2-7050

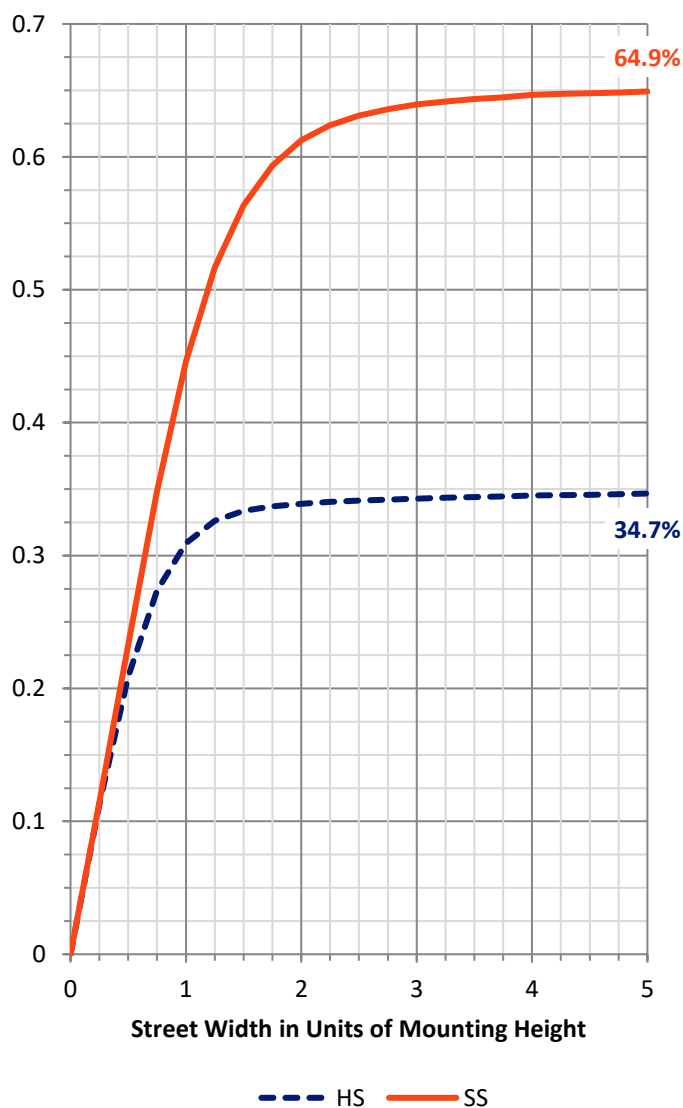
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1100.9	0.0	1100.9
	% Fixture	35.0	0.0	35.0
Street Side	Lumens	2042.9	0.0	2042.9
	% Fixture	65.0	0.0	65.0
Total	Lumens	3143.8	0.0	3143.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.5	1.0
10°-20°	108.1	3.4
20°-30°	212.4	6.8
30°-40°	352.9	11.2
40°-50°	518.6	16.5
50°-60°	718.0	22.8
60°-70°	857.0	27.3
70°-80°	303.1	9.6
80°-90°	42.3	1.3
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°	3143.8	100.0
0°-180°	3143.8	100.0

Coefficient of Utilization



REPORT NUMBER: P154311

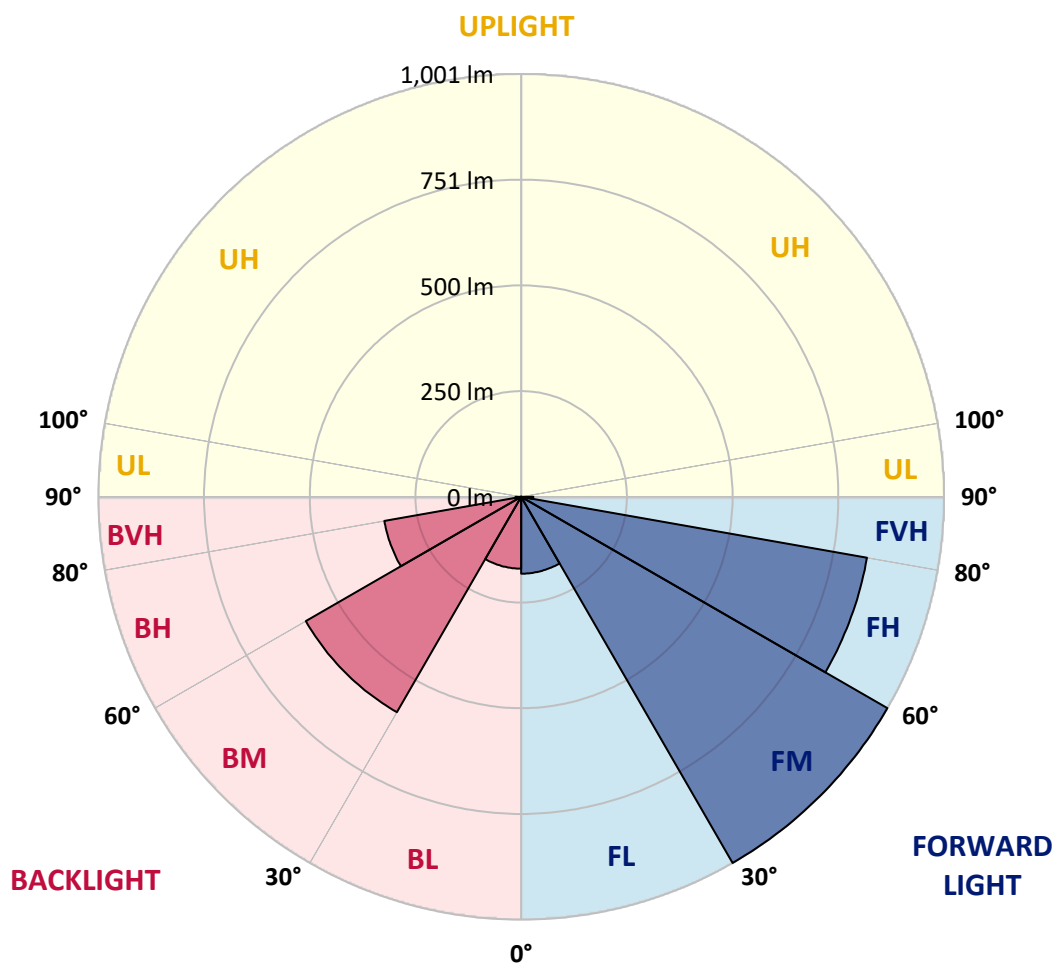
CATALOG NUMBER: VXM-E01-LED-E1-T2-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	181.9	5.8			
FM	(30°-60°)	1000.9	31.8			
FH	(60°-80°)	831.2	26.4			G1/1800
FVH	(80°-90°)	28.9	0.9			G1/100
BL	(0°-30°)	170.1	5.4	B1/500		
BM	(30°-60°)	588.6	18.7	B1/1000		
BH	(60°-80°)	328.8	10.5	B1/500		G1/500
BVH	(80°-90°)	13.4	0.4			G1/100
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



REPORT NUMBER: P154311

CATALOG NUMBER: VXM-E01-LED-E1-T2-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3
2.5°	328.0	328.4	327.7	327.3	326.3	324.6	323.2	321.9	321.9	321.9	320.8
5°	342.4	343.1	341.7	340.7	337.6	335.9	333.5	331.8	331.1	330.7	329.7
7.5°	360.5	359.5	357.4	356.7	354.3	350.6	346.1	342.7	342.7	342.4	342.7
10°	378.6	375.9	374.9	373.8	370.1	365.3	360.2	356.4	356.1	355.7	354.7
12.5°	396.8	395.7	394.7	390.9	387.2	379.7	373.8	370.1	369.7	370.1	368.7
15°	420.7	418.3	417.3	410.8	402.6	394.4	387.2	383.8	382.7	383.1	382.1
17.5°	439.2	439.2	436.8	429.6	419.0	407.7	400.2	398.1	397.8	397.8	398.1
20°	453.9	453.5	451.1	445.3	432.7	421.4	417.6	416.9	416.6	416.6	417.6
22.5°	462.1	461.4	460.4	453.9	444.0	436.4	436.8	438.8	439.5	440.2	441.6
25°	466.2	465.2	464.8	460.4	453.2	452.2	458.3	463.8	465.2	466.5	468.2
27.5°	473.0	471.3	472.0	470.3	468.6	471.7	484.3	490.1	491.2	492.9	493.9
30°	491.8	491.2	493.9	494.6	496.0	500.4	512.0	517.5	519.9	519.9	524.7
32.5°	527.8	528.1	528.8	536.0	538.4	541.4	547.6	552.0	552.4	552.7	557.2
35°	576.0	578.0	583.9	590.0	595.8	595.5	591.7	594.1	592.4	594.5	594.8
37.5°	636.9	634.1	642.7	656.7	665.6	663.2	646.4	635.5	638.6	637.2	636.2
40°	683.7	686.8	703.2	721.7	728.5	736.1	714.2	695.4	692.6	687.5	684.4
42.5°	748.4	748.7	762.1	775.7	795.6	812.0	798.0	770.9	762.7	756.6	743.2
45°	808.2	807.2	818.1	834.9	858.5	882.1	887.2	857.8	854.7	843.8	826.4
47.5°	848.2	846.9	854.4	876.3	914.6	953.3	974.5	965.6	959.8	955.3	927.9
50°	875.3	872.5	881.1	904.3	947.1	1006.6	1062.0	1069.5	1067.1	1067.1	1049.7
52.5°	895.4	895.4	901.6	920.4	963.9	1038.1	1137.3	1175.2	1178.3	1181.7	1180.7
55°	884.2	885.9	901.3	928.6	974.5	1060.0	1199.5	1282.6	1299.7	1314.1	1330.5
57.5°	845.5	851.3	871.8	916.7	977.2	1076.4	1268.6	1433.1	1481.4	1523.1	1588.1
60°	789.1	796.6	826.4	883.5	957.0	1049.7	1292.9	1560.4	1637.0	1728.0	1897.6
62.5°	692.3	699.8	728.9	786.0	848.9	947.4	1192.3	1579.2	1701.6	1830.6	2087.1
65°	490.5	478.5	512.0	563.3	635.5	730.9	963.5	1453.0	1629.1	1803.9	2120.6
67.5°	273.3	272.3	292.8	331.1	400.2	502.8	663.9	1114.4	1276.5	1474.5	1863.4
70°	188.5	190.5	203.5	244.9	302.0	390.6	473.0	699.8	816.4	950.9	1333.3
72.5°	132.4	136.8	144.0	168.6	227.1	329.0	483.3	418.3	476.5	568.1	801.7
75°	77.6	80.7	85.9	97.8	129.3	219.9	500.4	367.7	367.7	389.2	485.0
77.5°	47.9	47.9	51.0	55.8	68.7	107.7	356.4	413.2	401.5	389.2	390.3
80°	24.6	26.3	30.8	33.2	38.3	49.3	160.1	385.5	422.8	447.7	430.3
82.5°	11.3	12.7	18.8	20.2	22.2	26.0	55.1	219.2	293.8	386.8	483.3
85°	5.8	5.8	9.9	12.3	13.3	12.0	20.2	88.6	134.1	204.5	320.1
87.5°	1.0	1.0	1.7	2.1	3.1	2.7	3.4	5.1	8.6	9.2	9.6
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: P154311

CATALOG NUMBER: VXM-E01-LED-E1-T2-7050

CANDELA DISTRIBUTION (continued):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3
2.5°	320.5	320.8	320.5	320.1	319.5	319.5	319.5	319.1	319.1	319.1	318.8
5°	329.7	328.4	328.7	328.0	327.7	327.3	327.7	327.0	326.3	326.6	326.3
7.5°	341.4	340.7	339.3	339.3	339.0	338.3	338.3	337.2	336.9	336.2	335.9
10°	354.3	352.6	353.3	352.6	353.0	351.6	350.9	350.2	349.6	349.6	349.9
12.5°	367.7	367.3	366.3	365.6	365.6	364.6	365.0	364.6	363.6	363.2	362.2
15°	381.4	381.4	380.3	380.7	380.3	379.7	379.0	379.0	378.3	377.6	377.9
17.5°	397.4	397.4	397.4	397.4	397.8	396.8	397.1	396.4	395.7	397.1	397.1
20°	418.3	419.7	419.7	419.3	421.0	420.0	419.7	421.4	419.7	422.1	421.7
22.5°	442.3	443.6	443.6	445.0	445.3	446.4	447.0	446.4	447.7	449.1	449.1
25°	468.9	470.3	471.3	473.4	474.4	473.7	474.1	475.8	476.5	477.8	479.2
27.5°	497.0	497.3	498.7	501.1	502.8	503.5	503.8	506.6	506.9	507.6	508.9
30°	524.3	527.8	527.1	530.2	531.2	532.2	534.3	535.3	537.7	539.0	539.0
32.5°	556.5	555.8	558.5	560.9	562.6	564.4	566.1	567.4	568.8	569.5	572.9
35°	596.5	597.9	597.9	598.2	602.3	602.7	604.0	607.1	608.1	610.2	611.6
37.5°	636.2	633.8	633.4	633.4	632.1	633.1	633.4	633.8	635.2	635.5	636.9
40°	680.6	677.6	674.8	673.1	670.4	666.6	665.9	664.2	665.3	664.9	665.3
42.5°	741.5	733.0	726.5	721.7	716.2	712.1	709.0	704.6	701.5	697.8	697.1
45°	819.2	803.1	792.2	784.3	776.4	765.1	758.6	751.8	745.6	739.5	734.3
47.5°	921.1	904.0	886.6	872.2	859.9	841.7	823.3	813.0	801.0	790.4	782.9
50°	1041.2	1020.6	1012.4	992.2	976.9	949.5	926.6	909.8	885.9	869.8	855.8
52.5°	1163.9	1158.8	1154.4	1137.3	1119.1	1103.4	1083.2	1053.8	1029.5	1011.1	982.3
55°	1331.2	1333.6	1331.9	1322.6	1316.2	1301.1	1292.9	1267.2	1256.3	1229.6	1199.5
57.5°	1612.7	1631.8	1656.1	1665.7	1678.7	1666.4	1680.8	1698.2	1654.8	1669.8	1642.8
60°	1972.2	2060.1	2112.4	2176.7	2218.8	2277.6	2288.2	2303.6	2299.2	2307.7	2325.2
62.5°	2191.8	2296.1	2396.3	2469.2	2547.1	2590.2	2642.2	2678.5	2716.1	2741.4	2734.2
65°	2256.4	2363.8	2454.8	2534.5	2604.3	2656.9	2705.2	2750.6	2785.2	2809.5	2823.8
67.5°	2019.0	2159.3	2255.0	2348.4	2438.4	2493.8	2534.1	2578.3	2628.9	2671.0	2679.2
70°	1519.3	1729.7	1865.5	1977.3	2083.0	2157.6	2214.0	2255.0	2294.4	2324.5	2357.3
72.5°	950.2	1134.2	1289.5	1434.5	1546.7	1649.3	1696.8	1787.8	1775.8	1798.8	1823.4
75°	569.5	659.1	744.6	846.9	905.7	991.2	1006.6	1021.7	1013.8	988.1	1007.3
77.5°	395.7	410.4	409.8	403.9	397.8	382.7	363.2	352.6	345.5	335.2	339.3
80°	398.1	366.3	317.8	267.1	220.6	189.8	177.5	177.5	190.2	208.3	226.4
82.5°	475.8	441.9	394.0	329.7	261.3	212.7	180.3	167.3	169.6	188.1	211.4
85°	320.8	328.4	288.0	263.4	208.6	162.5	136.1	110.5	97.8	100.9	114.2
87.5°	11.6	14.0	5.1	6.8	4.8	4.1	4.1	4.4	3.1	3.8	3.4
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: P154311

CATALOG NUMBER: VXM-E01-LED-E1-T2-7050

CANDELA DISTRIBUTION (continued):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3
2.5°	318.4	318.1	318.1	317.4	317.4	317.1	317.1	316.7	316.4	316.4	316.0
5°	326.0	325.6	324.9	324.6	323.9	323.9	323.6	322.9	322.9	322.2	321.9
7.5°	336.6	335.9	335.2	334.9	334.5	333.5	333.5	332.8	332.8	332.1	331.8
10°	349.2	348.5	347.8	348.2	347.2	346.8	346.1	346.1	345.1	344.8	344.8
12.5°	362.9	362.6	362.6	361.5	361.2	360.8	359.5	359.5	359.5	358.8	359.1
15°	377.6	377.9	376.9	377.9	377.6	376.6	376.6	376.6	375.2	376.9	375.6
17.5°	397.4	398.5	397.8	398.1	397.4	397.4	397.8	397.4	398.1	398.1	400.2
20°	422.1	422.4	424.1	423.4	423.4	423.1	423.8	424.1	425.5	424.8	426.2
22.5°	449.1	450.8	451.1	452.5	452.5	452.2	452.9	454.2	454.9	455.9	455.6
25°	479.9	480.9	482.3	480.6	483.3	483.3	484.0	485.7	486.0	486.0	488.4
27.5°	508.6	511.3	511.7	513.4	512.4	513.1	515.4	516.5	517.8	517.8	518.5
30°	541.1	542.1	542.8	544.9	544.5	544.9	545.2	546.9	546.9	548.6	550.3
32.5°	574.6	575.3	576.0	578.0	578.7	580.1	579.4	580.8	582.5	582.8	583.9
35°	614.6	615.3	616.0	619.1	619.4	621.8	622.5	621.8	624.6	622.8	624.6
37.5°	637.9	641.0	641.7	643.7	643.0	644.7	645.8	647.1	647.8	649.2	651.9
40°	666.3	667.3	669.4	670.4	671.8	672.1	673.5	674.5	675.5	678.6	681.7
42.5°	695.4	696.7	697.8	699.1	700.8	702.2	703.2	706.3	707.0	709.0	714.9
45°	730.6	729.9	730.2	730.6	731.3	733.0	736.1	739.1	741.2	746.0	750.8
47.5°	774.4	769.9	768.2	765.5	766.2	769.9	770.6	775.7	779.8	784.3	790.1
50°	840.7	828.8	821.6	814.4	813.7	815.8	818.5	824.0	828.8	834.6	842.8
52.5°	952.2	929.3	914.9	895.1	889.6	888.6	886.6	889.6	891.0	898.9	914.3
55°	1178.0	1135.6	1108.2	1077.4	1048.7	1040.1	1023.7	1027.1	1023.7	1028.5	1051.4
57.5°	1649.3	1615.4	1588.8	1549.4	1500.2	1447.8	1434.8	1381.1	1391.7	1422.5	1402.7
60°	2333.7	2321.4	2302.2	2283.4	2216.0	2178.1	2116.2	2109.3	2065.9	2066.2	2037.8
62.5°	2716.8	2732.5	2720.9	2715.4	2711.7	2699.7	2668.9	2632.0	2576.6	2536.5	2477.7
65°	2826.2	2812.9	2800.2	2798.5	2797.5	2817.0	2821.4	2795.5	2745.2	2682.9	2615.2
67.5°	2698.7	2691.1	2691.8	2677.5	2686.3	2720.2	2743.8	2736.6	2690.4	2615.2	2529.0
70°	2394.9	2380.2	2395.3	2414.1	2427.4	2446.9	2470.5	2476.3	2434.3	2357.0	2269.1
72.5°	1793.3	1795.7	1810.0	1815.2	1868.9	1863.4	1884.6	1815.5	1785.1	1711.5	1666.4
75°	943.7	928.3	968.3	883.5	848.6	872.9	804.8	739.5	753.2	764.4	683.0
77.5°	333.5	311.9	275.3	260.6	216.9	183.7	150.2	135.4	127.6	123.5	118.3
80°	239.4	246.3	238.7	221.0	187.8	150.5	118.7	93.7	80.4	73.2	68.4
82.5°	242.2	269.2	281.2	276.0	245.9	186.1	122.8	78.3	58.1	48.6	45.1
85°	130.0	142.3	136.8	115.3	103.6	61.9	42.4	28.4	23.9	21.9	20.2
87.5°	5.1	4.1	3.4	3.4	3.8	4.1	3.4	3.8	3.4	3.4	3.4
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: P154311

CATALOG NUMBER: VXM-E01-LED-E1-T2-7050

CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	155°
0°	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3
2.5°	315.4	315.4	315.4	315.0	314.3	312.6	310.9	309.5	308.5	307.5	306.1
5°	321.5	320.8	320.8	320.8	318.1	315.4	313.0	310.6	308.5	306.8	305.4
7.5°	331.8	331.4	330.1	329.7	327.7	323.2	320.5	316.4	314.0	311.6	310.9
10°	344.1	343.7	343.4	343.1	340.3	335.9	332.5	328.7	325.3	321.9	318.4
12.5°	358.5	358.1	357.8	356.7	355.7	353.3	349.6	345.5	341.4	334.2	330.4
15°	376.2	376.9	376.2	375.9	375.2	375.6	373.2	367.3	360.8	351.6	343.7
17.5°	399.8	399.2	398.8	400.2	399.8	401.5	400.9	393.3	383.4	368.7	355.0
20°	425.8	425.8	427.2	428.2	431.3	435.8	433.7	424.5	406.3	385.8	368.0
22.5°	457.0	457.6	459.0	458.3	463.1	470.3	471.0	458.0	434.4	406.0	381.0
25°	489.5	490.1	488.8	490.8	498.7	508.9	511.0	492.5	461.4	424.5	392.0
27.5°	520.2	520.9	520.9	523.7	531.2	548.6	550.7	530.2	488.8	440.5	399.8
30°	550.3	553.1	553.8	554.4	565.7	590.0	594.5	564.7	512.7	452.5	405.3
32.5°	588.3	589.3	590.7	592.4	605.4	635.2	635.2	594.5	528.1	460.0	406.3
35°	629.0	629.3	632.4	632.8	651.2	681.0	675.2	619.1	539.0	458.3	398.8
37.5°	653.6	655.0	658.1	662.2	681.7	723.7	710.4	640.3	541.1	447.0	381.7
40°	684.1	686.8	689.9	694.0	723.1	767.2	740.2	653.6	532.5	424.8	356.1
42.5°	716.9	720.7	725.5	733.0	767.5	805.5	762.7	655.7	513.1	399.8	325.6
45°	753.8	760.7	766.2	775.1	814.0	838.7	776.4	643.7	488.4	367.0	293.1
47.5°	796.6	802.1	811.6	821.2	860.2	861.2	777.8	620.5	454.9	334.2	258.6
50°	849.3	852.7	867.1	872.9	909.5	884.8	767.9	589.0	419.7	297.2	220.3
52.5°	919.4	924.2	942.6	951.5	977.5	917.0	753.8	554.8	379.3	255.8	180.9
55°	1057.9	1078.8	1091.8	1107.2	1123.9	989.8	747.7	518.2	333.8	208.0	143.3
57.5°	1446.8	1440.0	1468.7	1503.6	1503.2	1156.4	784.6	486.7	280.1	159.0	110.1
60°	2026.2	2032.7	2018.0	2038.9	1972.5	1363.0	835.2	453.5	219.6	118.3	84.1
62.5°	2456.8	2419.2	2398.4	2373.7	2227.7	1385.6	798.3	385.5	159.7	83.1	64.6
65°	2558.8	2514.6	2469.8	2423.0	2202.7	1249.1	655.0	282.9	103.3	57.1	51.3
67.5°	2458.2	2387.4	2330.3	2282.1	2018.3	1035.3	478.8	173.8	59.2	46.2	43.8
70°	2197.6	2119.2	2026.9	1972.9	1699.6	763.1	306.8	93.7	45.5	41.0	40.0
72.5°	1608.6	1544.3	1443.4	1381.5	1220.4	463.8	171.4	52.7	42.4	39.3	38.0
75°	626.6	593.1	551.0	554.4	494.9	205.2	77.6	45.5	41.4	38.6	37.3
77.5°	107.7	105.0	97.1	97.1	110.5	74.9	51.6	45.8	41.0	38.0	35.6
80°	64.6	63.3	60.2	59.5	57.5	52.7	49.6	46.5	40.4	35.9	32.8
82.5°	42.4	40.7	39.7	39.3	42.8	46.2	46.5	46.2	38.3	31.1	26.7
85°	18.1	18.1	18.1	18.5	24.6	37.3	38.3	41.0	31.5	24.3	19.2
87.5°	3.1	3.8	3.8	4.1	4.4	8.2	10.3	13.3	10.6	10.3	9.2
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: P154311

CATALOG NUMBER: VXM-E01-LED-E1-T2-7050

CANDELA DISTRIBUTION (continued):

	165°	175°	180°
0°	314.3	314.3	314.3
2.5°	305.8	305.1	305.1
5°	304.8	304.1	304.4
7.5°	308.9	307.5	307.8
10°	316.4	315.0	314.3
12.5°	326.0	324.2	324.2
15°	335.9	331.8	331.4
17.5°	344.1	339.0	338.3
20°	353.3	346.5	345.5
22.5°	361.9	352.6	351.3
25°	368.0	356.7	355.0
27.5°	370.8	357.4	356.1
30°	372.8	357.8	355.7
32.5°	370.8	354.7	353.0
35°	359.5	342.0	341.0
37.5°	340.0	320.5	319.1
40°	314.3	293.8	290.4
42.5°	281.5	262.3	258.6
45°	249.7	227.8	226.1
47.5°	215.5	194.6	195.6
50°	179.6	160.8	160.4
52.5°	145.4	128.9	127.9
55°	114.6	103.0	101.9
57.5°	90.6	84.5	83.5
60°	73.9	70.8	69.8
62.5°	59.5	58.5	58.1
65°	49.6	49.6	49.6
67.5°	43.1	43.4	43.4
70°	39.7	40.0	39.7
72.5°	38.3	39.3	39.3
75°	37.3	38.0	36.6
77.5°	36.6	36.9	34.5
80°	36.3	35.9	31.5
82.5°	31.5	30.4	26.7
85°	28.7	21.9	18.5
87.5°	14.7	10.3	7.9
90°	0.0	0.0	0.0

(END OF REPORT)