

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: P154319

Luminaire Tested: **VXM-E02-LED-E1-T2-7030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P154319
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-E02-LED-E1-T2-7030
Description: VISION SITE MEDIUM LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 2
Light Source: (42) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5596.8 lumens
Efficiency: N/A
Efficacy: 107.4 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 52.1
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



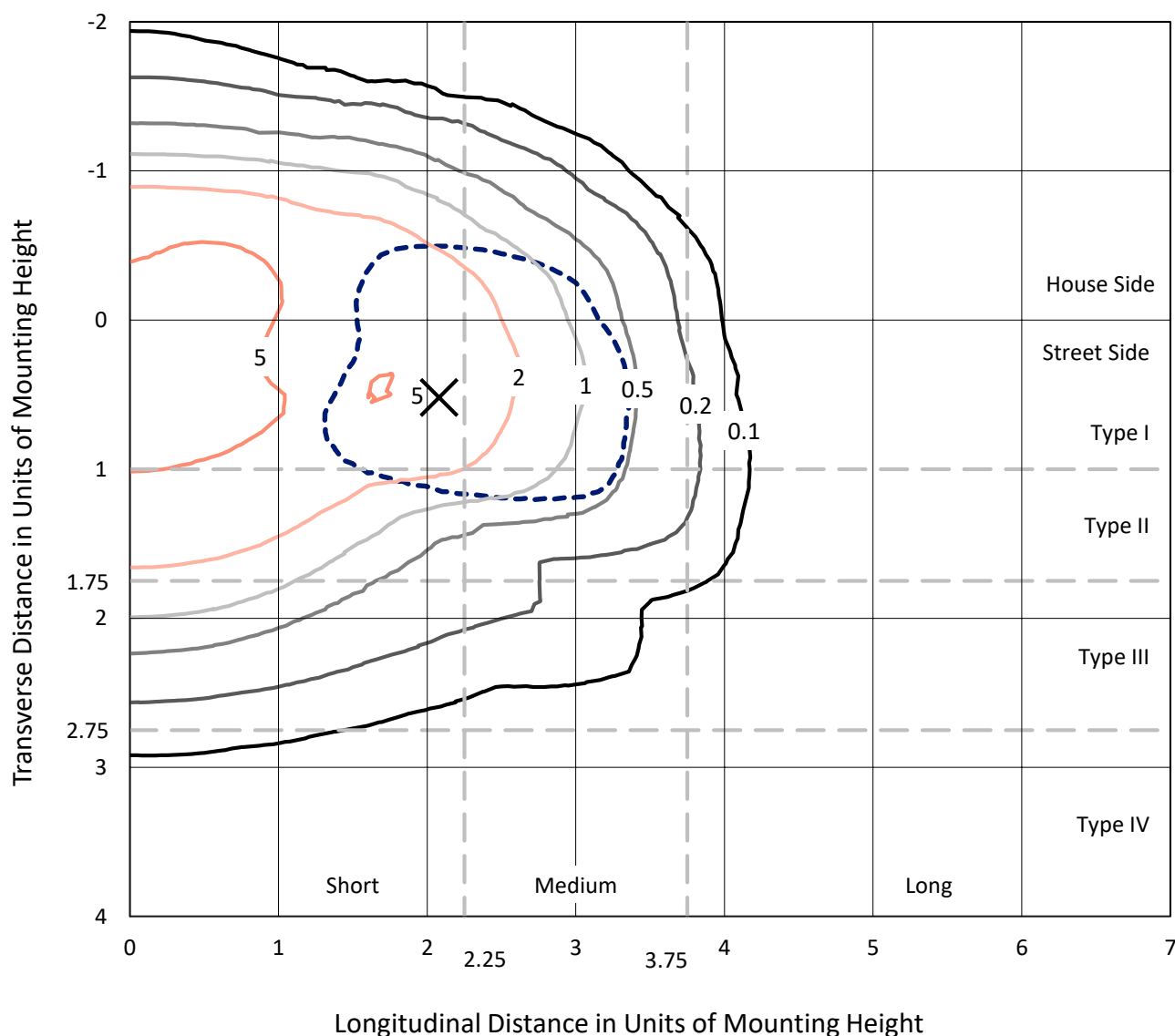
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

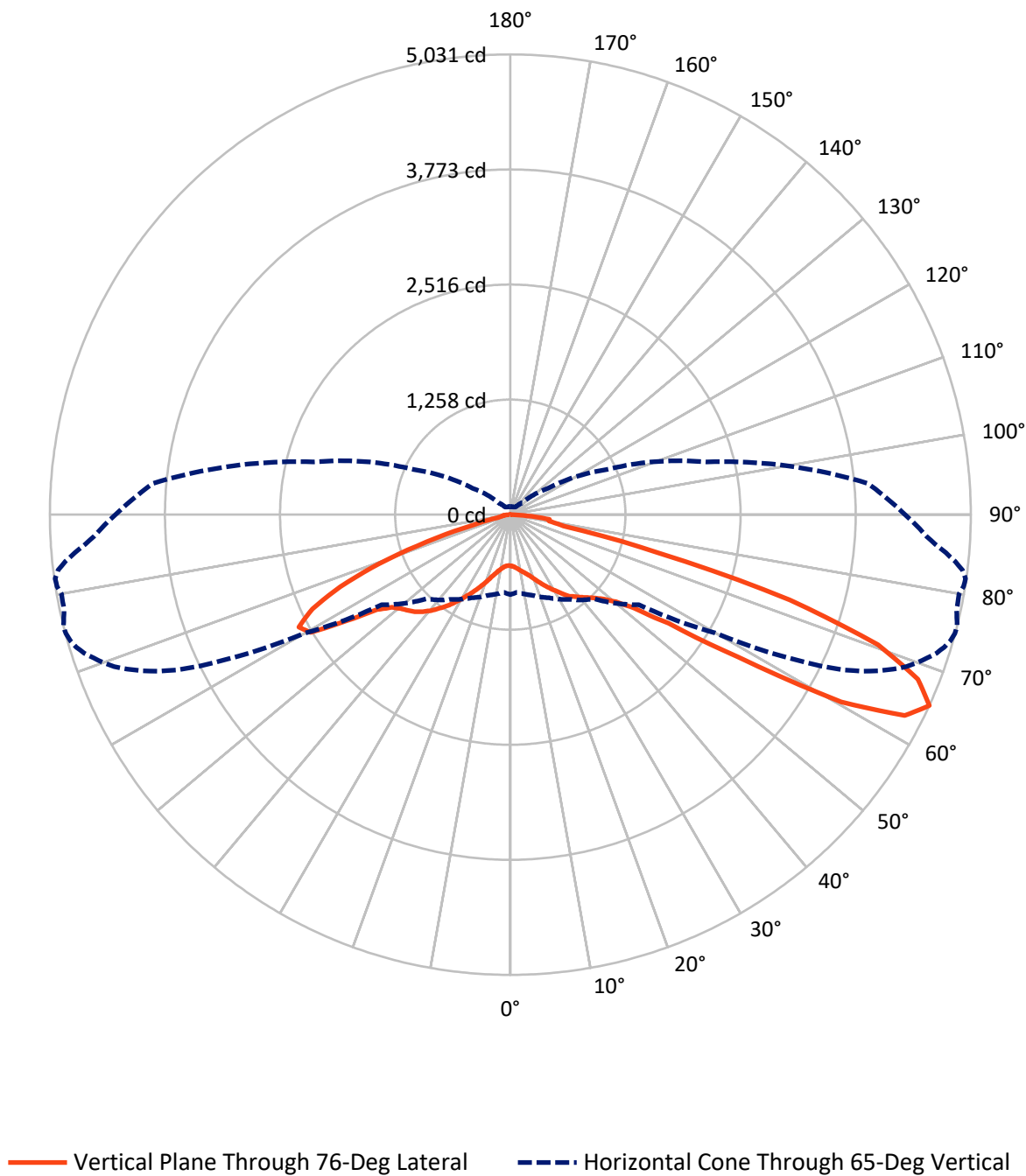


Based on 10 foot mounting height. Maximum calculated value = 6.8 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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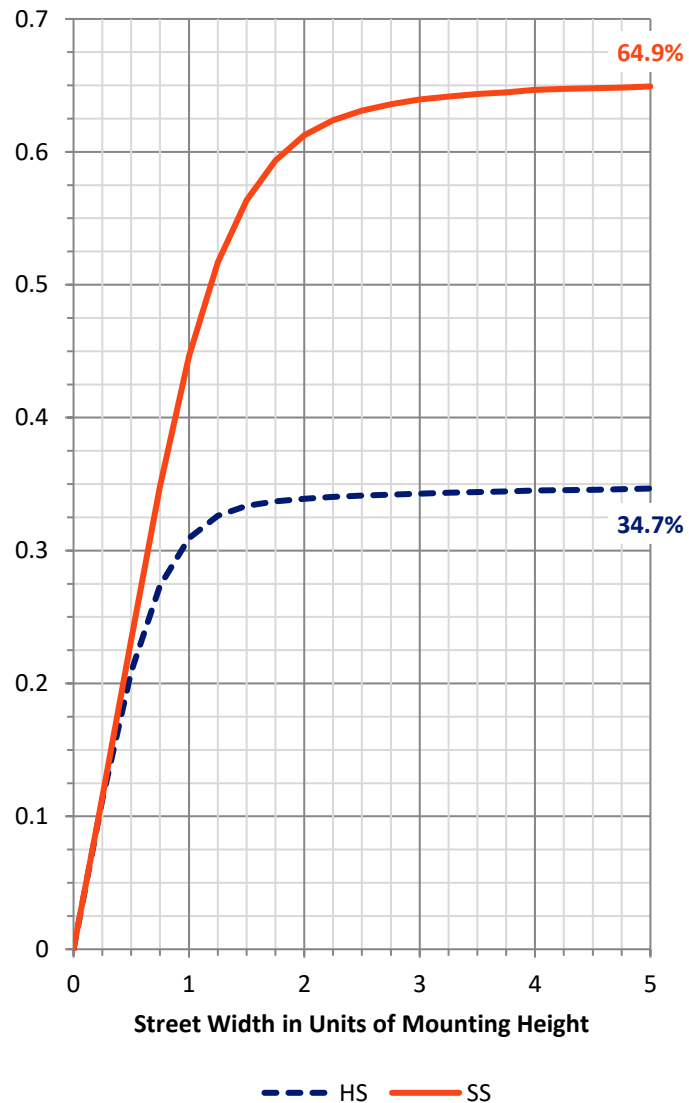
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1959.8	0.0	1959.8
	% Fixture	35.0	0.0	35.0
Street Side	Lumens	3636.9	0.0	3636.9
	% Fixture	65.0	0.0	65.0
Total	Lumens	5596.8	0.0	5596.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.0	1.0
10°-20°	192.5	3.4
20°-30°	378.1	6.8
30°-40°	628.3	11.2
40°-50°	923.2	16.5
50°-60°	1278.2	22.8
60°-70°	1525.6	27.3
70°-80°	539.5	9.6
80°-90°	75.4	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°	5596.8	100.0
0°-180°	5596.8	100.0

Coefficient of Utilization



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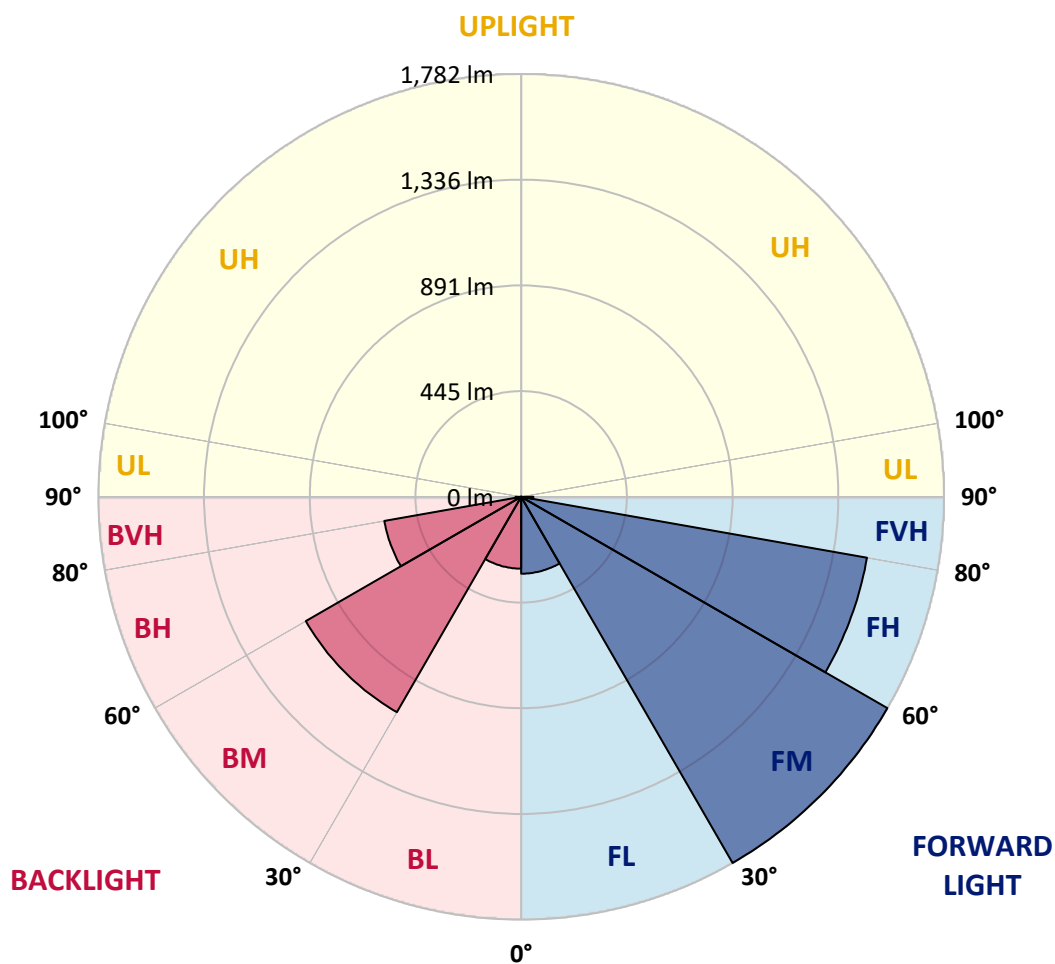
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	323.8	5.8			
FM	(30°-60°)	1781.8	31.8			
FH	(60°-80°)	1479.7	26.4			G1/1800
FVH	(80°-90°)	51.5	0.9			G1/100
BL	(0°-30°)	302.8	5.4	B1/500		
BM	(30°-60°)	1047.8	18.7	B2/2500		
BH	(60°-80°)	585.4	10.5	B2/1000		G2/1000
BVH	(80°-90°)	23.9	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 II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	559.6	559.6	559.6	559.6	559.6	559.6	559.6	559.6	559.6	559.6	559.6
2.5°	583.9	584.5	583.3	582.7	580.9	577.8	575.4	573.0	573.0	573.0	571.1
5°	609.5	610.7	608.3	606.5	601.0	597.9	593.7	590.6	589.4	588.8	587.0
7.5°	641.8	640.0	636.3	635.1	630.8	624.1	616.2	610.1	610.1	609.5	610.1
10°	674.1	669.2	667.4	665.5	658.8	650.3	641.2	634.5	633.9	633.3	631.4
12.5°	706.3	704.5	702.7	696.0	689.3	675.9	665.5	658.8	658.2	658.8	656.4
15°	748.9	744.7	742.9	731.3	716.7	702.1	689.3	683.2	681.4	682.0	680.1
17.5°	781.8	781.8	777.6	764.8	745.9	725.8	712.4	708.8	708.2	708.2	708.8
20°	808.0	807.4	803.1	792.8	770.3	750.2	743.5	742.2	741.6	741.6	743.5
22.5°	822.6	821.4	819.6	808.0	790.4	777.0	777.6	781.2	782.4	783.7	786.1
25°	829.9	828.1	827.5	819.6	806.8	805.0	815.9	825.7	828.1	830.5	833.6
27.5°	842.1	839.1	840.3	837.2	834.2	839.7	862.2	872.6	874.4	877.4	879.3
30°	875.6	874.4	879.3	880.5	882.9	890.8	911.5	921.3	925.5	925.5	934.1
32.5°	939.5	940.1	941.4	954.1	958.4	963.9	974.8	982.8	983.4	984.0	991.9
35°	1025.4	1029.0	1039.4	1050.4	1060.7	1060.1	1053.4	1057.7	1054.6	1058.3	1058.9
37.5°	1133.8	1128.9	1144.1	1169.1	1184.9	1180.7	1150.8	1131.3	1136.8	1134.4	1132.6
40°	1217.2	1222.7	1251.9	1284.8	1297.0	1310.4	1271.4	1237.9	1233.0	1223.9	1218.4
42.5°	1332.3	1332.9	1356.6	1381.0	1416.3	1445.5	1420.6	1372.5	1357.8	1346.9	1323.1
45°	1438.8	1437.0	1456.5	1486.3	1528.3	1570.4	1579.5	1527.1	1521.6	1502.2	1471.1
47.5°	1510.1	1507.6	1521.0	1560.0	1628.2	1697.0	1734.8	1718.9	1708.6	1700.7	1651.9
50°	1558.2	1553.3	1568.5	1609.9	1686.0	1792.0	1890.6	1904.0	1899.8	1899.8	1868.7
52.5°	1594.1	1594.1	1605.1	1638.6	1715.9	1848.0	2024.6	2092.2	2097.7	2103.8	2101.9
55°	1574.0	1577.1	1604.5	1653.2	1734.8	1887.0	2135.4	2283.4	2313.8	2339.4	2368.6
57.5°	1505.2	1515.6	1552.1	1631.9	1739.6	1916.2	2258.4	2551.3	2637.1	2711.4	2827.1
60°	1404.7	1418.1	1471.1	1572.8	1703.7	1868.7	2301.6	2777.8	2914.2	3076.2	3378.2
62.5°	1232.4	1245.8	1297.6	1399.3	1511.3	1686.7	2122.6	2811.3	3029.3	3258.8	3715.5
65°	873.2	851.9	911.5	1002.9	1131.3	1301.2	1715.3	2586.6	2900.2	3211.3	3775.2
67.5°	486.5	484.7	521.2	589.4	712.4	895.1	1181.9	1983.8	2272.4	2625.0	3317.3
70°	335.5	339.2	362.3	436.0	537.7	695.4	842.1	1245.8	1453.4	1692.7	2373.5
72.5°	235.6	243.6	256.3	300.2	404.3	585.8	860.4	744.7	848.2	1011.4	1427.3
75°	138.2	143.7	152.8	174.1	230.2	391.5	890.8	654.6	654.6	692.9	863.4
77.5°	85.2	85.2	90.7	99.3	122.4	191.8	634.5	735.6	714.8	692.9	694.8
80°	43.8	46.9	54.8	59.1	68.2	87.7	285.0	686.2	752.6	797.1	766.0
82.5°	20.1	22.5	33.5	35.9	39.6	46.3	98.0	390.3	523.0	688.7	860.4
85°	10.4	10.4	17.7	21.9	23.7	21.3	35.9	157.7	238.7	364.1	569.9
87.5°	1.8	1.8	3.0	3.7	5.5	4.9	6.1	9.1	15.2	16.4	17.0
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):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	559.6	559.6	559.6	559.6	559.6	559.6	559.6	559.6	559.6	559.6	559.6
2.5°	570.5	571.1	570.5	569.9	568.7	568.7	568.7	568.1	568.1	568.1	567.5
5°	587.0	584.5	585.2	583.9	583.3	582.7	583.3	582.1	580.9	581.5	580.9
7.5°	607.7	606.5	604.0	604.0	603.4	602.2	602.2	600.4	599.8	598.5	597.9
10°	630.8	627.8	629.0	627.8	628.4	625.9	624.7	623.5	622.3	622.3	622.9
12.5°	654.6	654.0	652.1	650.9	650.9	649.1	649.7	649.1	647.3	646.7	644.8
15°	678.9	678.9	677.1	677.7	677.1	675.9	674.7	674.7	673.4	672.2	672.8
17.5°	707.5	707.5	707.5	707.5	708.2	706.3	706.9	705.7	704.5	706.9	706.9
20°	744.7	747.1	747.1	746.5	749.6	747.7	747.1	750.2	747.1	751.4	750.8
22.5°	787.3	789.7	789.7	792.2	792.8	794.6	795.8	794.6	797.1	799.5	799.5
25°	834.8	837.2	839.1	842.7	844.5	843.3	843.9	847.0	848.2	850.6	853.1
27.5°	884.7	885.3	887.8	892.0	895.1	896.3	896.9	901.8	902.4	903.6	906.0
30°	933.4	939.5	938.3	943.8	945.6	947.4	951.1	952.9	957.2	959.6	959.6
32.5°	990.7	989.5	994.3	998.6	1001.6	1004.7	1007.7	1010.2	1012.6	1013.8	1019.9
35°	1061.9	1064.4	1064.4	1065.0	1072.3	1072.9	1075.3	1080.8	1082.6	1086.3	1088.7
37.5°	1132.6	1128.3	1127.7	1127.7	1125.2	1127.1	1127.7	1128.3	1130.7	1131.3	1133.8
40°	1211.7	1206.2	1201.4	1198.3	1193.4	1186.7	1185.5	1182.5	1184.3	1183.7	1184.3
42.5°	1320.1	1304.9	1293.3	1284.8	1275.0	1267.7	1262.3	1254.3	1248.9	1242.2	1240.9
45°	1458.3	1429.7	1410.2	1396.2	1382.2	1362.1	1350.5	1338.4	1327.4	1316.4	1307.3
47.5°	1639.8	1609.3	1578.3	1552.7	1530.8	1498.5	1465.6	1447.4	1426.0	1407.2	1393.8
50°	1853.5	1817.0	1802.3	1766.4	1739.0	1690.3	1649.5	1619.7	1577.1	1548.4	1523.5
52.5°	2072.1	2063.0	2055.0	2024.6	1992.3	1964.3	1928.4	1876.0	1832.8	1799.9	1748.8
55°	2369.8	2374.1	2371.1	2354.6	2343.0	2316.3	2301.6	2256.0	2236.5	2189.0	2135.4
57.5°	2871.0	2905.1	2948.3	2965.3	2988.5	2966.6	2992.1	3023.2	2945.9	2972.7	2924.5
60°	3510.9	3667.4	3760.6	3875.0	3949.9	4054.7	4073.5	4100.9	4093.0	4108.2	4139.3
62.5°	3901.8	4087.5	4266.0	4395.7	4534.5	4611.2	4703.8	4768.3	4835.3	4880.3	4867.5
65°	4016.9	4208.1	4370.1	4512.0	4636.2	4729.9	4815.8	4896.8	4958.3	5001.5	5027.1
67.5°	3594.3	3844.0	4014.5	4180.7	4340.8	4439.5	4511.3	4589.9	4680.0	4754.9	4769.5
70°	2704.7	3079.2	3320.9	3520.1	3708.2	3840.9	3941.4	4014.5	4084.5	4138.1	4196.5
72.5°	1691.5	2019.1	2295.6	2553.7	2753.4	2936.1	3020.8	3182.7	3161.4	3202.2	3246.0
75°	1013.8	1173.4	1325.6	1507.6	1612.4	1764.6	1792.0	1818.8	1804.8	1759.1	1793.2
77.5°	704.5	730.7	729.5	719.1	708.2	681.4	646.7	627.8	615.0	596.7	604.0
80°	708.8	652.1	565.7	475.6	392.7	337.9	316.0	316.0	338.5	370.8	403.1
82.5°	847.0	786.7	701.5	587.0	465.2	378.7	320.9	297.8	302.0	334.9	376.3
85°	571.1	584.5	512.7	468.9	371.4	289.2	242.3	196.7	174.1	179.6	203.4
87.5°	20.7	25.0	9.1	12.2	8.5	7.3	7.3	7.9	5.5	6.7	6.1
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):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	559.6	559.6	559.6	559.6	559.6	559.6	559.6	559.6	559.6	559.6	559.6
2.5°	566.9	566.3	566.3	565.1	565.1	564.5	564.5	563.8	563.2	563.2	562.6
5°	580.3	579.7	578.5	577.8	576.6	576.6	576.0	574.8	574.8	573.6	573.0
7.5°	599.2	597.9	596.7	596.1	595.5	593.7	593.7	592.5	592.5	591.2	590.6
10°	621.7	620.5	619.3	619.9	618.0	617.4	616.2	616.2	614.4	613.8	613.8
12.5°	646.0	645.4	645.4	643.6	643.0	642.4	640.0	640.0	640.0	638.7	639.3
15°	672.2	672.8	671.0	672.8	672.2	670.4	670.4	670.4	668.0	671.0	668.6
17.5°	707.5	709.4	708.2	708.8	707.5	707.5	708.2	707.5	708.8	708.8	712.4
20°	751.4	752.0	755.0	753.8	753.8	753.2	754.4	755.0	757.5	756.3	758.7
22.5°	799.5	802.5	803.1	805.6	805.6	805.0	806.2	808.6	809.8	811.7	811.1
25°	854.3	856.1	858.5	855.5	860.4	860.4	861.6	864.6	865.2	865.2	869.5
27.5°	905.4	910.3	910.9	914.0	912.1	913.4	917.6	919.4	921.9	921.9	923.1
30°	963.3	965.1	966.3	970.0	969.4	970.0	970.6	973.6	973.6	976.7	979.7
32.5°	1023.0	1024.2	1025.4	1029.0	1030.3	1032.7	1031.5	1033.9	1037.0	1037.6	1039.4
35°	1094.2	1095.4	1096.6	1102.1	1102.7	1107.0	1108.2	1107.0	1111.9	1108.8	1111.9
37.5°	1135.6	1141.1	1142.3	1146.0	1144.7	1147.8	1149.6	1152.0	1153.3	1155.7	1160.6
40°	1186.1	1188.0	1191.6	1193.4	1195.9	1196.5	1198.9	1200.8	1202.6	1208.1	1213.5
42.5°	1237.9	1240.3	1242.2	1244.6	1247.6	1250.1	1251.9	1257.4	1258.6	1262.3	1272.6
45°	1300.6	1299.4	1300.0	1300.6	1301.8	1304.9	1310.4	1315.8	1319.5	1328.0	1336.5
47.5°	1378.6	1370.6	1367.6	1362.7	1363.9	1370.6	1371.9	1381.0	1388.3	1396.2	1406.6
50°	1496.7	1475.4	1462.6	1449.8	1448.6	1452.2	1457.1	1466.8	1475.4	1485.7	1500.3
52.5°	1695.2	1654.4	1628.8	1593.5	1583.7	1581.9	1578.3	1583.7	1586.2	1600.2	1627.6
55°	2097.1	2021.5	1972.8	1918.0	1866.9	1851.7	1822.4	1828.5	1822.4	1831.0	1871.8
57.5°	2936.1	2875.8	2828.3	2758.3	2670.6	2577.5	2554.3	2458.7	2477.6	2532.4	2497.1
60°	4154.5	4132.6	4098.5	4065.0	3945.1	3877.5	3767.3	3755.1	3677.8	3678.4	3627.8
62.5°	4836.5	4864.5	4843.8	4834.1	4827.4	4806.0	4751.2	4685.5	4586.8	4515.6	4410.9
65°	5031.3	5007.6	4985.1	4982.0	4980.2	5014.9	5022.8	4976.5	4887.0	4776.2	4655.7
67.5°	4804.2	4790.8	4792.0	4766.5	4782.3	4842.6	4884.6	4871.8	4789.6	4655.7	4502.2
70°	4263.5	4237.3	4264.1	4297.6	4321.4	4356.1	4398.1	4408.4	4333.5	4195.9	4039.4
72.5°	3192.5	3196.7	3222.3	3231.4	3327.0	3317.3	3355.0	3232.0	3177.9	3046.9	2966.6
75°	1680.0	1652.6	1723.8	1572.8	1510.7	1553.9	1432.7	1316.4	1340.8	1360.9	1216.0
77.5°	593.7	555.3	490.2	464.0	386.0	327.0	267.3	241.1	227.1	219.8	210.7
80°	426.2	438.4	425.0	393.3	334.3	267.9	211.3	166.8	143.1	130.3	121.8
82.5°	431.1	479.2	500.5	491.4	437.8	331.2	218.6	139.4	103.5	86.5	80.4
85°	231.4	253.3	243.6	205.2	184.5	110.2	75.5	50.5	42.6	39.0	35.9
87.5°	9.1	7.3	6.1	6.1	6.7	7.3	6.1	6.7	6.1	6.1	6.1
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: VXM-E02-LED-E1-T2-7030

CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	155°
0°	559.6	559.6	559.6	559.6	559.6	559.6	559.6	559.6	559.6	559.6	559.6
2.5°	561.4	561.4	561.4	560.8	559.6	556.5	553.5	551.1	549.2	547.4	545.0
5°	572.4	571.1	571.1	571.1	566.3	561.4	557.1	552.9	549.2	546.2	543.7
7.5°	590.6	590.0	587.6	587.0	583.3	575.4	570.5	563.2	559.0	554.7	553.5
10°	612.6	611.9	611.3	610.7	605.9	597.9	591.9	585.2	579.1	573.0	566.9
12.5°	638.1	637.5	636.9	635.1	633.3	629.0	622.3	615.0	607.7	594.9	588.2
15°	669.8	671.0	669.8	669.2	668.0	668.6	664.3	654.0	642.4	625.9	611.9
17.5°	711.8	710.6	710.0	712.4	711.8	714.8	713.6	700.2	682.6	656.4	632.0
20°	758.1	758.1	760.5	762.3	767.8	775.7	772.1	755.6	723.4	686.8	655.2
22.5°	813.5	814.7	817.1	815.9	824.5	837.2	838.5	815.3	773.3	722.8	678.3
25°	871.3	872.6	870.1	873.8	887.8	906.0	909.7	876.8	821.4	755.6	697.8
27.5°	926.1	927.4	927.4	932.2	945.6	976.7	980.3	943.8	870.1	784.3	711.8
30°	979.7	984.6	985.8	987.0	1007.1	1050.4	1058.3	1005.3	912.7	805.6	721.5
32.5°	1047.3	1049.1	1051.6	1054.6	1077.8	1130.7	1130.7	1058.3	940.1	819.0	723.4
35°	1119.8	1120.4	1125.9	1126.5	1159.3	1212.3	1202.0	1102.1	959.6	815.9	710.0
37.5°	1163.6	1166.0	1171.5	1178.8	1213.5	1288.4	1264.7	1139.9	963.3	795.8	679.5
40°	1217.8	1222.7	1228.2	1235.5	1287.2	1365.8	1317.7	1163.6	948.1	756.3	633.9
42.5°	1276.3	1283.0	1291.5	1304.9	1366.4	1434.0	1357.8	1167.3	913.4	711.8	579.7
45°	1342.0	1354.2	1363.9	1379.8	1449.2	1493.0	1382.2	1146.0	869.5	653.3	521.8
47.5°	1418.1	1427.9	1444.9	1462.0	1531.4	1533.2	1384.6	1104.5	809.8	594.9	460.3
50°	1511.9	1518.0	1543.6	1553.9	1619.1	1575.2	1367.0	1048.5	747.1	529.1	392.1
52.5°	1636.7	1645.2	1678.1	1694.0	1740.2	1632.5	1342.0	987.6	675.3	455.5	322.1
55°	1883.3	1920.5	1943.6	1971.0	2000.8	1762.2	1331.1	922.5	594.3	370.2	255.1
57.5°	2575.6	2563.5	2614.6	2676.7	2676.1	2058.7	1396.8	866.5	498.7	283.1	196.1
60°	3607.1	3618.7	3592.5	3629.7	3511.5	2426.5	1486.9	807.4	390.9	210.7	149.8
62.5°	4373.7	4306.8	4269.6	4225.8	3965.8	2466.7	1421.2	686.2	284.4	148.0	115.1
65°	4555.2	4476.6	4396.9	4313.4	3921.3	2223.7	1166.0	503.6	183.9	101.7	91.3
67.5°	4376.2	4250.1	4148.4	4062.6	3593.1	1843.1	852.5	309.3	105.3	82.2	77.9
70°	3912.2	3772.7	3608.3	3512.1	3025.6	1358.5	546.2	166.8	81.0	73.1	71.2
72.5°	2863.7	2749.2	2569.6	2459.3	2172.6	825.7	305.1	93.8	75.5	70.0	67.6
75°	1115.5	1055.8	980.9	987.0	881.1	365.3	138.2	81.0	73.7	68.8	66.4
77.5°	191.8	186.9	172.9	172.9	196.7	133.3	91.9	81.6	73.1	67.6	63.3
80°	115.1	112.6	107.2	105.9	102.3	93.8	88.3	82.8	71.9	63.9	58.5
82.5°	75.5	72.5	70.6	70.0	76.1	82.2	82.8	82.2	68.2	55.4	47.5
85°	32.3	32.3	32.3	32.9	43.8	66.4	68.2	73.1	56.0	43.2	34.1
87.5°	5.5	6.7	6.7	7.3	7.9	14.6	18.3	23.7	18.9	18.3	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):

	165°	175°	180°
0°	559.6	559.6	559.6
2.5°	544.4	543.1	543.1
5°	542.5	541.3	541.9
7.5°	549.8	547.4	548.0
10°	563.2	560.8	559.6
12.5°	580.3	577.2	577.2
15°	597.9	590.6	590.0
17.5°	612.6	603.4	602.2
20°	629.0	616.8	615.0
22.5°	644.2	627.8	625.3
25°	655.2	635.1	632.0
27.5°	660.0	636.3	633.9
30°	663.7	636.9	633.3
32.5°	660.0	631.4	628.4
35°	640.0	608.9	607.1
37.5°	605.2	570.5	568.1
40°	559.6	523.0	517.0
42.5°	501.1	467.0	460.3
45°	444.5	405.5	402.5
47.5°	383.6	346.5	348.3
50°	319.7	286.2	285.6
52.5°	258.8	229.6	227.7
55°	204.0	183.3	181.5
57.5°	161.4	150.4	148.6
60°	131.5	126.0	124.2
62.5°	105.9	104.1	103.5
65°	88.3	88.3	88.3
67.5°	76.7	77.3	77.3
70°	70.6	71.2	70.6
72.5°	68.2	70.0	70.0
75°	66.4	67.6	65.2
77.5°	65.2	65.8	61.5
80°	64.5	63.9	56.0
82.5°	56.0	54.2	47.5
85°	51.1	39.0	32.9
87.5°	26.2	18.3	14.0
90°	0.0	0.0	0.0

(END OF REPORT)