

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: P151015

Luminaire Tested: **VXS-F02-LED-E1-SL3**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P151015
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33679)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: VXS-F02-LED-E1-SL3
Description: VISION SITE SMALL LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL
Light Source: (14) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5012.8 lumens
Efficiency: N/A
Efficacy: 91.1 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 55
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



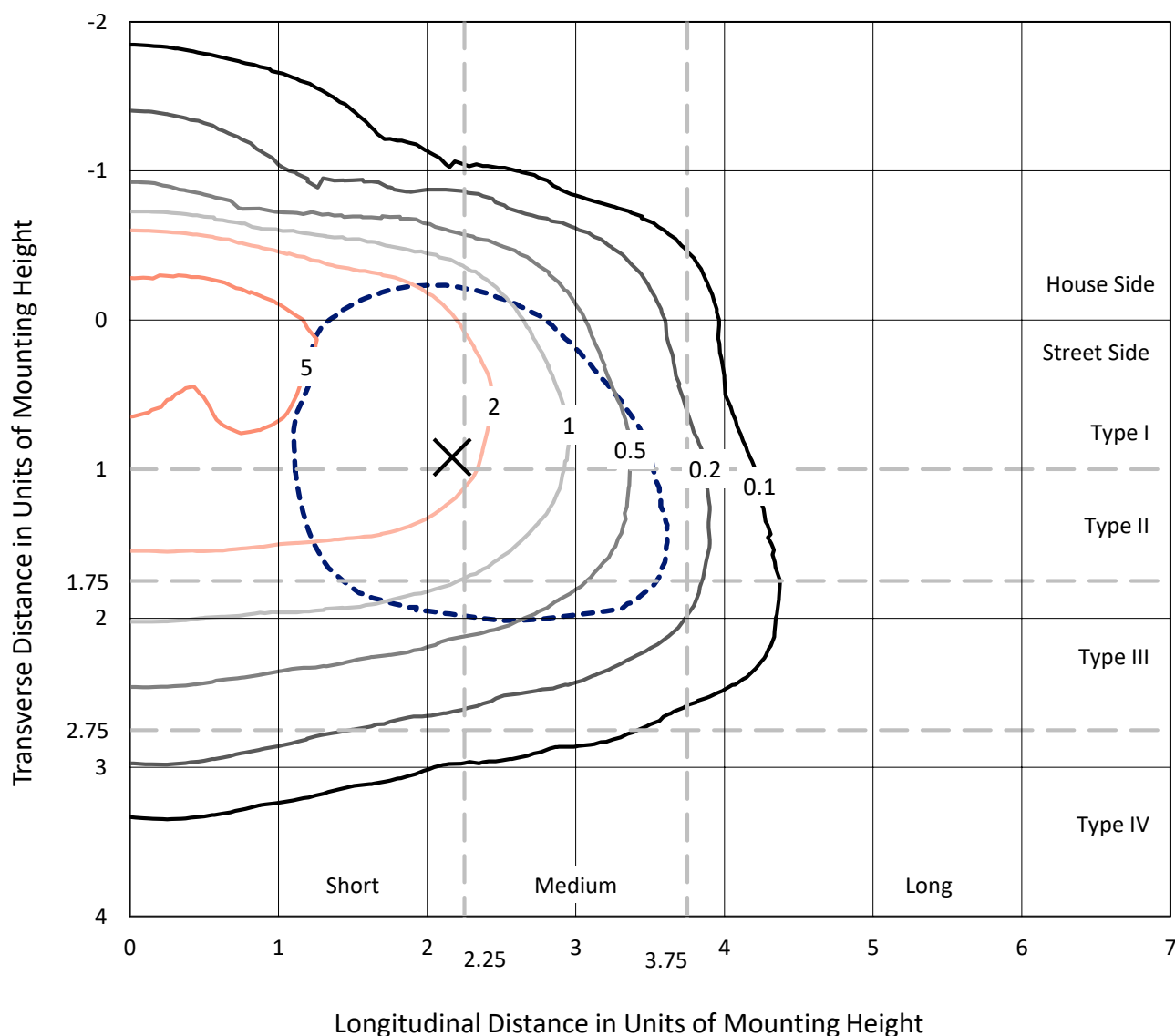
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

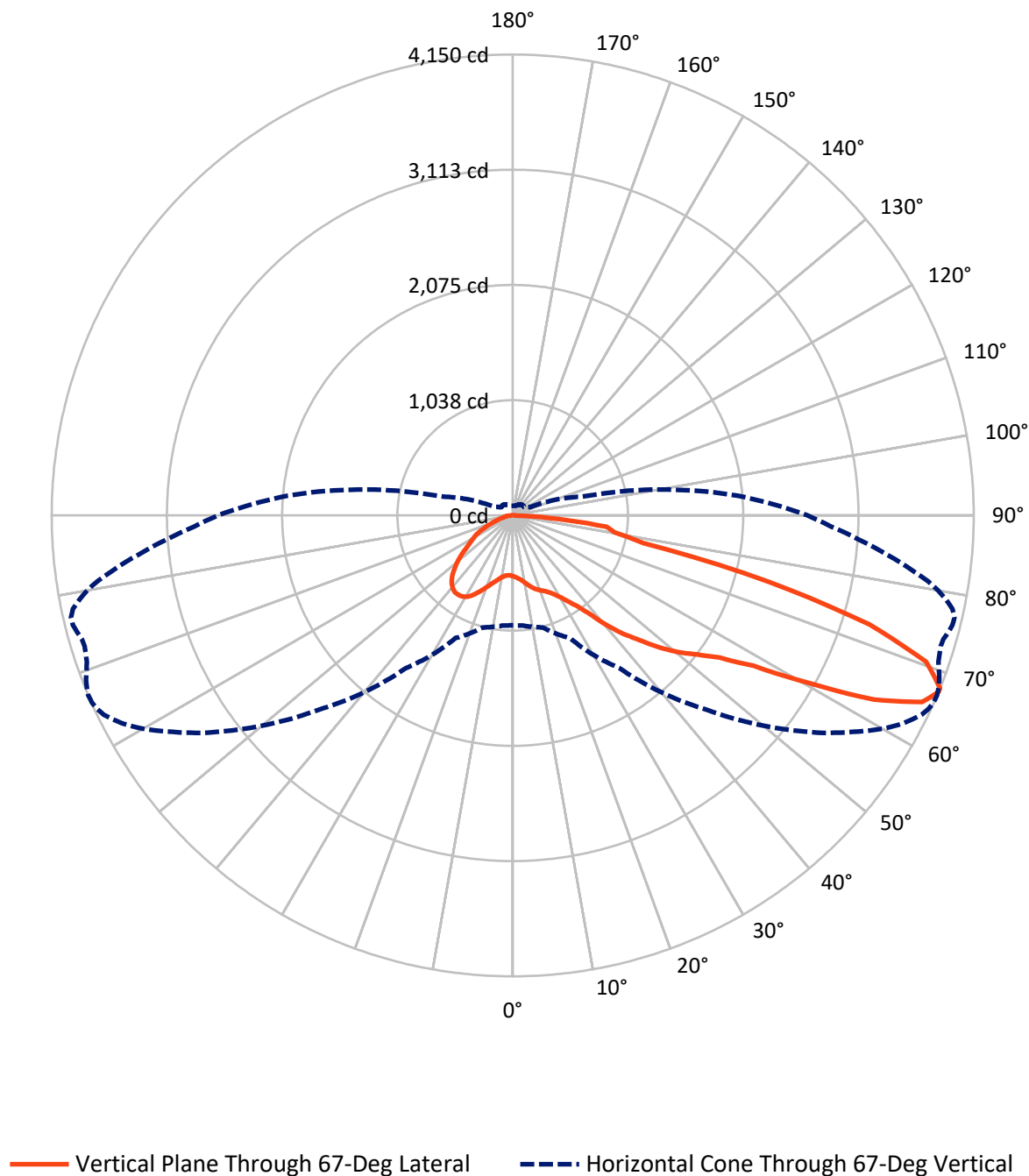


Based on 10 foot mounting height. Maximum calculated value = 7 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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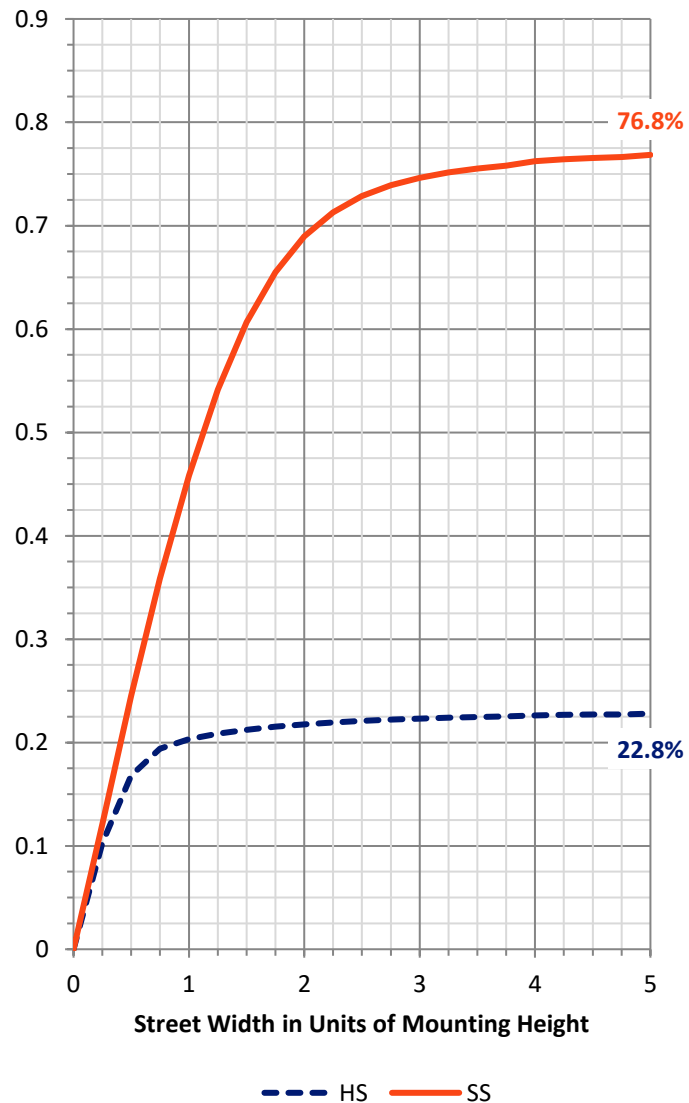
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1156.8	0.0	1156.8
	% Fixture	23.1	0.0	23.1
Street Side	Lumens	3856.1	0.0	3856.1
	% Fixture	76.9	0.0	76.9
Total	Lumens	5012.8	0.0	5012.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.5	1.1
10°-20°	186.9	3.7
20°-30°	330.1	6.6
30°-40°	473.8	9.5
40°-50°	719.6	14.4
50°-60°	1059.5	21.1
60°-70°	1408.0	28.1
70°-80°	688.8	13.7
80°-90°	91.5	1.8
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°	5012.8	100.0
0°-180°	5012.8	100.0

Coefficient of Utilization



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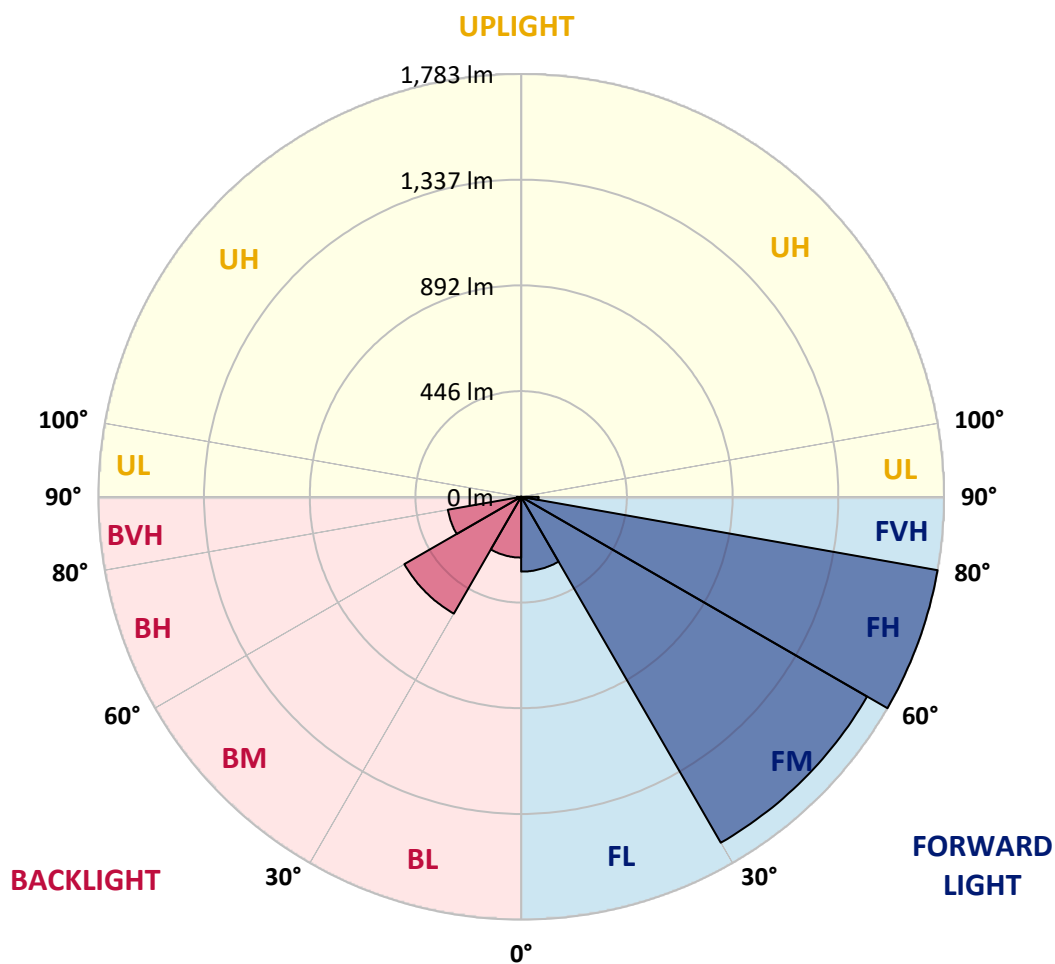
CATALOG NUMBER: VXS-F02-LED-E1-SL3

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	315.4	6.3			
FM	(30°-60°)	1684.2	33.6			
FH	(60°-80°)	1783.0	35.6			G1/1800
FVH	(80°-90°)	73.5	1.5			G1/100
BL	(0°-30°)	256.2	5.1	B1/500		
BM	(30°-60°)	568.7	11.3	B1/1000		
BH	(60°-80°)	313.9	6.3	B1/500		G1/500
BVH	(80°-90°)	18.0	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	547.6	547.6	547.6	547.6	547.6	547.6	547.6	547.6	547.6	547.6	547.6
2.5°	573.5	574.0	573.0	572.3	569.0	565.8	563.5	560.8	560.8	560.8	559.7
5°	605.9	603.7	605.4	601.6	594.9	588.9	582.8	577.8	576.8	576.8	574.6
7.5°	645.0	642.3	641.1	635.6	625.7	616.9	604.9	599.9	597.1	596.1	594.9
10°	692.3	692.3	685.2	675.9	662.6	647.3	634.0	625.2	624.7	624.7	619.7
12.5°	740.7	741.9	732.5	723.1	701.7	681.3	665.9	656.1	655.4	653.3	650.5
15°	785.4	782.6	776.6	762.8	739.2	714.9	695.6	685.7	683.5	681.3	679.7
17.5°	822.2	819.5	811.8	794.2	769.4	740.7	717.1	706.6	705.6	704.5	702.3
20°	845.4	843.1	832.1	811.8	785.9	756.7	731.4	724.2	722.1	722.1	720.9
22.5°	858.5	855.2	839.3	812.3	787.0	765.5	744.7	740.2	738.5	739.2	739.2
25°	865.2	862.4	839.8	801.3	777.1	771.1	762.3	759.5	760.0	760.6	761.7
27.5°	866.2	862.4	836.0	787.0	764.5	781.5	787.6	791.9	791.9	794.2	798.0
30°	858.0	853.6	828.3	776.0	759.0	802.4	826.6	838.1	842.6	841.5	850.3
32.5°	843.7	840.9	820.6	776.0	774.3	843.7	886.6	903.1	905.3	906.4	916.4
35°	838.8	838.1	829.3	802.4	822.2	916.4	981.9	994.5	997.2	997.2	1004.4
37.5°	837.6	840.4	850.3	851.9	906.4	1024.2	1110.1	1129.3	1129.3	1134.8	1134.8
40°	837.6	843.7	881.1	925.7	1009.3	1164.6	1283.4	1305.4	1305.4	1311.5	1308.2
42.5°	870.1	878.9	940.5	1025.3	1139.3	1309.3	1445.8	1470.6	1472.2	1470.6	1475.4
45°	934.0	941.7	1016.5	1138.1	1273.0	1464.5	1600.9	1630.7	1624.7	1628.5	1630.2
47.5°	1018.7	1030.8	1116.1	1261.5	1403.4	1608.1	1774.9	1801.9	1799.7	1801.3	1794.1
50°	1108.9	1121.7	1216.8	1383.6	1533.3	1723.7	1914.7	1954.8	1951.0	1953.8	1957.6
52.5°	1188.7	1196.5	1288.4	1475.4	1631.8	1831.6	2022.0	2072.0	2080.8	2082.0	2084.8
55°	1236.1	1245.5	1329.6	1521.1	1703.3	1937.2	2144.7	2220.6	2237.7	2242.2	2254.2
57.5°	1252.6	1262.5	1339.0	1527.8	1742.4	2036.3	2315.9	2449.6	2463.9	2487.6	2526.1
60°	1252.0	1262.5	1329.1	1513.0	1782.1	2159.1	2582.3	2806.2	2878.9	2903.1	2958.1
62.5°	1200.8	1213.0	1280.6	1467.8	1832.6	2315.9	2978.4	3323.0	3416.6	3460.6	3520.0
65°	1088.6	1097.4	1160.7	1353.3	1818.3	2470.6	3309.8	3739.6	3825.0	3889.3	3995.5
67°	989.0	994.5	1044.0	1217.9	1678.5	2476.1	3414.4	3843.1	3917.4	3985.6	4095.1
67.5°	963.6	975.2	1013.8	1176.7	1626.3	2444.7	3407.3	3827.2	3903.1	3974.1	4089.6
70°	784.2	800.7	820.0	929.5	1278.4	2056.7	3154.6	3550.9	3617.4	3683.5	3844.8
72.5°	483.7	513.5	517.3	586.6	832.1	1421.6	2552.5	2994.4	3044.6	3091.9	3257.0
75°	285.1	289.5	303.2	359.4	488.2	849.7	1712.6	2224.6	2270.8	2293.9	2423.2
77.5°	159.1	163.4	175.0	223.4	375.3	572.3	997.2	1307.0	1335.1	1364.4	1343.4
80°	66.0	72.1	77.6	90.3	175.5	451.8	685.7	831.0	849.2	866.2	887.7
82.5°	31.9	34.1	41.9	47.9	63.8	185.5	537.7	720.4	741.9	766.6	816.7
85°	14.8	16.5	23.1	27.6	30.8	46.7	180.0	350.6	380.3	385.8	395.8
87.5°	1.1	1.1	2.8	3.8	5.5	6.0	18.8	26.4	29.7	26.9	34.1
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: VXS-F02-LED-E1-SL3

CANDELA DISTRIBUTION (continued):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	547.6	547.6	547.6	547.6	547.6	547.6	547.6	547.6	547.6	547.6	547.6
2.5°	559.2	558.7	557.5	557.5	557.0	557.0	557.0	555.9	555.9	555.9	555.3
5°	574.0	573.5	571.8	571.8	570.7	570.7	569.0	568.5	567.5	567.5	566.8
7.5°	593.3	592.7	590.6	590.6	588.9	588.3	587.3	585.6	585.6	584.5	583.4
10°	619.7	618.0	617.5	614.7	615.3	614.2	613.1	611.4	610.4	609.2	608.2
12.5°	649.4	649.4	646.6	645.0	646.1	645.0	642.8	642.3	640.6	640.6	639.0
15°	677.5	677.5	676.4	674.2	674.7	673.1	672.5	671.4	669.2	669.7	669.2
17.5°	701.7	701.7	700.0	699.0	699.0	697.3	697.8	696.8	695.6	695.1	693.5
20°	720.9	720.9	719.9	718.8	719.3	719.3	717.6	717.6	717.6	716.6	716.6
22.5°	739.7	740.2	740.2	740.2	740.7	741.3	740.7	741.9	741.3	742.4	742.4
25°	764.5	766.1	767.2	767.2	769.9	770.5	771.1	772.6	772.6	774.3	774.9
27.5°	801.3	802.4	806.8	807.9	808.5	812.8	813.4	815.6	817.8	818.3	819.0
30°	851.9	854.7	858.0	860.2	860.2	865.7	867.9	866.8	872.8	874.5	876.7
32.5°	919.6	921.9	925.2	927.4	929.5	932.3	932.8	935.5	940.5	945.0	942.2
35°	1005.0	1010.5	1005.0	1011.0	1012.6	1016.5	1015.4	1018.7	1020.9	1022.6	1022.0
37.5°	1128.8	1126.0	1124.9	1122.7	1118.9	1132.0	1125.5	1124.9	1121.7	1131.0	1124.9
40°	1291.7	1293.4	1294.9	1286.2	1281.2	1281.2	1279.6	1273.5	1270.8	1279.0	1277.9
42.5°	1461.8	1463.4	1455.6	1450.2	1437.5	1435.9	1428.2	1426.5	1423.7	1428.2	1423.7
45°	1616.4	1617.5	1600.4	1603.2	1593.3	1594.9	1582.8	1587.8	1581.1	1585.6	1593.8
47.5°	1789.2	1791.4	1776.6	1782.6	1772.6	1766.6	1766.1	1769.3	1762.2	1766.6	1768.8
50°	1946.0	1943.3	1935.5	1937.2	1932.8	1933.9	1927.4	1933.4	1925.1	1933.9	1932.8
52.5°	2085.3	2082.0	2080.3	2085.8	2082.0	2082.0	2078.1	2080.8	2082.0	2095.2	2097.9
55°	2254.2	2257.0	2259.7	2269.6	2274.1	2266.9	2274.1	2287.8	2288.4	2319.7	2336.8
57.5°	2525.6	2544.8	2554.7	2560.8	2586.6	2583.9	2600.4	2633.5	2636.7	2709.3	2751.7
60°	2998.9	3033.0	3065.5	3047.9	3100.1	3116.1	3126.0	3187.7	3206.8	3275.6	3312.5
62.5°	3596.6	3600.4	3651.0	3635.0	3664.8	3657.6	3669.7	3697.8	3723.1	3779.8	3814.5
65°	4013.7	4031.8	4051.7	4031.3	4030.8	4006.5	3991.1	3990.6	4006.0	4018.1	4056.6
67°	4127.0	4145.3	4150.2	4135.3	4113.9	4083.0	4054.4	4039.6	4029.6	4035.1	4059.4
67.5°	4126.0	4143.0	4149.1	4134.8	4105.1	4079.2	4048.9	4031.8	4018.7	4021.5	4041.8
70°	3891.5	3928.4	3948.2	3952.6	3948.8	3903.6	3877.7	3862.4	3851.4	3824.4	3822.7
72.5°	3297.1	3341.8	3357.1	3381.9	3393.0	3326.3	3298.2	3315.3	3276.8	3191.5	3195.3
75°	2421.0	2424.2	2372.5	2362.7	2325.8	2175.0	2129.8	2088.6	2022.5	1919.6	1822.8
77.5°	1262.0	1261.5	1202.0	1171.7	1127.7	1036.9	1032.4	958.8	906.9	812.8	778.8
80°	896.5	910.9	930.7	940.5	925.2	889.9	841.5	789.2	729.2	670.4	599.9
82.5°	833.8	842.6	853.1	814.5	793.1	743.5	706.6	630.7	588.3	521.1	450.2
85°	405.6	432.5	411.7	387.5	379.2	296.7	286.7	239.4	217.4	178.9	166.7
87.5°	25.9	31.9	28.6	25.9	22.6	12.6	17.1	12.1	12.6	9.3	8.3
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°	547.6	547.6	547.6	547.6	547.6	547.6	547.6	547.6	547.6	547.6	547.6
2.5°	555.3	554.7	554.2	553.7	553.1	553.1	552.5	552.0	551.4	550.4	550.4
5°	565.8	565.8	565.2	564.1	564.1	563.0	561.3	560.8	560.8	559.7	558.7
7.5°	582.8	582.3	581.1	580.6	579.5	578.4	577.3	576.2	575.6	574.0	573.5
10°	608.7	607.6	604.9	603.7	603.2	602.1	600.9	599.9	598.2	597.1	596.6
12.5°	637.8	637.3	635.1	636.2	633.5	632.3	631.3	628.5	629.6	627.4	626.3
15°	667.0	667.6	666.4	666.4	664.2	662.6	661.6	659.3	658.8	657.6	656.6
17.5°	692.8	694.0	692.3	691.2	690.2	689.0	686.8	684.7	684.7	682.4	681.3
20°	716.6	717.6	717.1	716.0	714.4	713.8	712.7	711.1	711.1	709.9	708.3
22.5°	743.5	744.0	744.0	743.5	741.9	742.4	741.3	739.7	740.2	738.0	738.0
25°	776.0	777.1	778.2	778.8	777.6	778.2	777.1	776.0	775.4	776.0	775.4
27.5°	820.6	821.7	825.0	822.2	825.0	825.5	823.8	821.7	823.3	826.1	824.5
30°	879.5	878.3	882.8	883.3	882.8	883.3	882.2	880.5	881.7	886.6	883.8
32.5°	945.5	947.7	948.8	949.9	951.6	953.8	952.1	950.5	953.2	951.6	955.4
35°	1025.3	1030.3	1031.9	1030.3	1031.4	1035.2	1034.6	1035.2	1040.7	1035.2	1042.4
37.5°	1126.0	1131.0	1134.8	1132.6	1135.3	1135.3	1139.8	1151.9	1144.1	1154.1	1161.8
40°	1272.4	1280.1	1280.6	1280.1	1282.9	1286.2	1290.6	1303.7	1294.9	1305.4	1312.5
42.5°	1423.2	1432.5	1435.9	1430.4	1436.4	1443.5	1444.1	1455.6	1456.3	1457.9	1461.8
45°	1593.3	1601.6	1608.1	1605.4	1605.9	1615.2	1613.1	1624.0	1615.9	1615.9	1618.0
47.5°	1774.3	1782.1	1786.4	1790.9	1785.3	1793.6	1797.4	1795.2	1785.3	1783.1	1769.9
50°	1939.5	1946.0	1952.6	1964.8	1964.2	1968.1	1970.8	1960.9	1958.7	1946.6	1931.7
52.5°	2114.4	2131.5	2146.3	2171.7	2175.5	2188.7	2183.8	2167.3	2164.6	2144.7	2124.9
55°	2358.2	2407.3	2428.7	2467.8	2494.2	2493.7	2482.6	2479.9	2459.0	2419.4	2395.6
57.5°	2782.6	2859.1	2896.0	2946.5	2954.8	2949.8	2935.5	2910.3	2873.9	2807.4	2764.5
60°	3395.1	3442.5	3485.4	3497.5	3503.5	3494.2	3444.0	3388.0	3317.0	3225.1	3148.6
62.5°	3857.9	3906.4	3938.3	3933.4	3895.3	3847.5	3774.3	3680.2	3580.6	3477.6	3363.2
65°	4093.5	4113.9	4108.9	4070.4	4005.5	3921.8	3815.0	3698.9	3581.7	3460.0	3341.1
67°	4080.8	4081.3	4047.9	3973.0	3889.8	3784.8	3654.3	3527.8	3390.2	3262.5	3121.0
67.5°	4058.2	4056.1	4009.3	3927.3	3837.6	3729.2	3593.8	3462.8	3320.3	3191.5	3045.1
70°	3802.9	3772.1	3666.4	3535.4	3410.6	3264.1	3122.2	2971.9	2811.2	2700.5	2532.1
72.5°	3124.9	3020.8	2838.8	2701.7	2568.0	2376.4	2287.8	2101.2	1988.4	1917.9	1790.9
75°	1809.5	1722.6	1581.7	1453.5	1388.5	1275.1	1221.2	1084.1	1055.5	1054.5	1010.5
77.5°	690.7	602.6	511.8	412.2	350.6	278.4	245.5	219.6	199.8	213.6	193.7
80°	517.9	426.0	333.0	242.2	172.8	127.7	109.5	101.2	96.3	92.4	89.7
82.5°	385.8	304.4	236.1	154.1	107.9	81.5	70.5	66.0	63.8	60.0	56.7
85°	130.5	104.6	82.6	57.2	45.1	36.9	34.1	33.1	31.4	28.6	26.9
87.5°	7.2	6.6	7.2	5.5	6.6	5.5	6.0	6.0	6.0	5.5	5.5
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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CATALOG NUMBER: VXS-F02-LED-E1-SL3

CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	155°
0°	547.6	547.6	547.6	547.6	547.6	547.6	547.6	547.6	547.6	547.6	547.6
2.5°	549.8	549.8	549.8	548.7	547.0	543.7	540.4	537.7	534.9	533.3	532.2
5°	558.0	557.0	556.4	555.9	552.0	545.4	539.4	533.9	528.3	523.9	522.3
7.5°	573.0	570.7	570.2	568.5	563.5	553.7	544.9	536.1	528.3	522.3	519.5
10°	595.4	595.4	592.2	589.9	584.5	571.3	558.7	547.0	536.6	529.9	528.3
12.5°	624.1	624.1	621.3	619.7	613.1	596.1	580.6	566.8	557.0	550.4	549.8
15°	653.8	653.3	651.1	648.9	641.7	623.5	608.2	596.1	587.8	580.1	577.8
17.5°	680.2	680.2	677.5	675.2	668.1	652.7	639.0	630.2	620.8	604.9	592.7
20°	706.6	707.2	705.0	702.8	696.8	683.5	677.5	668.7	647.8	613.1	584.5
22.5°	735.9	738.0	735.2	733.1	728.1	722.6	720.4	699.5	655.4	599.9	558.0
25°	773.3	777.1	773.8	772.6	769.9	771.6	765.0	716.6	644.5	571.3	519.0
27.5°	824.5	824.5	825.0	825.0	823.8	829.9	805.7	717.1	620.2	534.4	472.2
30°	884.5	887.7	886.6	886.6	891.0	894.8	828.3	705.0	589.4	488.7	414.9
32.5°	956.5	959.3	960.3	955.4	973.1	953.2	836.6	683.0	551.4	432.0	346.7
35°	1043.4	1047.4	1050.1	1050.6	1062.2	1003.8	832.1	650.5	497.0	361.0	271.9
37.5°	1156.8	1164.6	1170.6	1173.4	1173.9	1046.7	820.0	607.6	426.0	281.8	202.5
40°	1307.7	1315.9	1314.2	1319.7	1288.4	1072.1	792.5	545.4	337.9	206.9	156.3
42.5°	1453.0	1454.0	1456.3	1451.3	1387.5	1085.3	754.0	469.4	253.2	154.6	133.8
45°	1615.2	1605.9	1595.4	1587.8	1478.8	1090.3	701.1	377.0	178.9	129.8	123.8
47.5°	1767.8	1755.0	1733.6	1711.6	1560.2	1082.5	633.5	282.3	136.0	118.9	117.2
50°	1917.4	1893.8	1863.5	1838.1	1638.3	1071.0	558.7	203.6	118.9	113.4	111.7
52.5°	2102.9	2063.2	2023.6	1990.6	1740.2	1052.8	479.9	154.6	111.7	109.0	106.7
55°	2357.1	2302.1	2238.2	2192.0	1878.3	1025.3	397.3	131.0	108.4	106.2	102.9
57.5°	2709.3	2626.8	2554.7	2479.4	2067.2	997.2	326.3	121.7	107.9	104.6	100.2
60°	3069.3	2970.3	2878.3	2770.5	2259.7	969.1	276.8	120.5	109.5	104.6	97.9
62.5°	3256.4	3154.1	3043.4	2933.9	2342.8	903.1	242.7	122.2	113.4	106.2	97.9
65°	3213.5	3088.6	2976.3	2864.6	2246.5	778.2	205.3	124.4	121.0	112.8	99.6
67°	2997.7	2867.4	2759.5	2652.6	2031.9	651.6	176.1	126.6	129.3	120.5	102.9
67.5°	2921.8	2791.4	2685.2	2581.1	1968.6	625.2	168.9	127.7	131.0	122.7	104.0
70°	2422.6	2326.8	2214.1	2133.7	1593.8	462.8	138.7	129.8	140.9	135.3	109.0
72.5°	1743.5	1652.1	1567.4	1522.8	1173.9	323.6	116.7	127.7	146.9	142.6	111.2
75°	926.8	921.2	890.5	912.4	726.4	211.3	102.9	119.4	140.3	130.5	103.4
77.5°	187.2	192.6	226.2	222.9	234.4	117.8	88.1	102.4	108.4	95.8	84.2
80°	86.9	85.3	83.6	84.8	83.1	75.4	71.5	80.3	75.4	61.7	56.2
82.5°	53.9	52.8	51.2	50.7	56.2	60.0	62.7	63.3	50.1	42.9	41.2
85°	25.9	25.9	25.3	26.4	33.1	49.0	52.8	46.7	33.6	30.8	29.1
87.5°	5.0	5.0	5.5	5.0	6.6	11.6	13.2	15.4	12.6	13.2	14.8
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: P151015

CATALOG NUMBER: VXS-F02-LED-E1-SL3

CANDELA DISTRIBUTION (continued):

	165°	175°	180°
0°	547.6	547.6	547.6
2.5°	531.1	529.9	529.9
5°	520.1	519.5	519.5
7.5°	517.3	517.9	517.3
10°	527.8	527.3	529.4
12.5°	550.9	552.5	552.0
15°	575.1	576.2	576.2
17.5°	582.3	578.4	577.8
20°	563.5	556.4	554.7
22.5°	528.3	515.1	515.6
25°	483.7	467.8	468.9
27.5°	432.0	414.9	414.4
30°	369.8	351.1	341.8
32.5°	295.0	272.4	272.4
35°	221.8	203.6	197.0
37.5°	168.4	157.9	154.6
40°	140.3	135.3	134.3
42.5°	127.7	126.0	125.5
45°	121.0	120.0	119.4
47.5°	115.0	114.5	113.9
50°	110.6	110.1	109.5
52.5°	106.7	105.7	105.1
55°	101.2	101.2	101.2
57.5°	97.9	97.9	97.4
60°	94.6	94.1	94.1
62.5°	91.9	90.8	91.4
65°	90.3	88.6	88.6
67°	89.1	85.8	85.8
67.5°	89.1	84.8	84.8
70°	87.5	80.3	79.3
72.5°	85.8	75.4	73.8
75°	81.5	71.5	69.8
77.5°	69.8	63.8	62.7
80°	53.9	46.7	47.9
82.5°	39.1	33.6	33.1
85°	28.1	24.2	24.2
87.5°	14.8	12.6	13.2
90°	0.0	0.0	0.0

(END OF REPORT)