

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: STREETWORKS

Report Number: P165332

Luminaire Tested: **VST-F11-LED-E-U-SL3-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165332
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33727)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-F11-LED-E-U-SL3-HSS
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (77) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15556.3 lumens
Efficiency: N/A
Efficacy: 55.0 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.83' x L: 1' x H: 0.1')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B0 - U0 - G3

Input Watts (W): 282.7
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: 28.75 FT



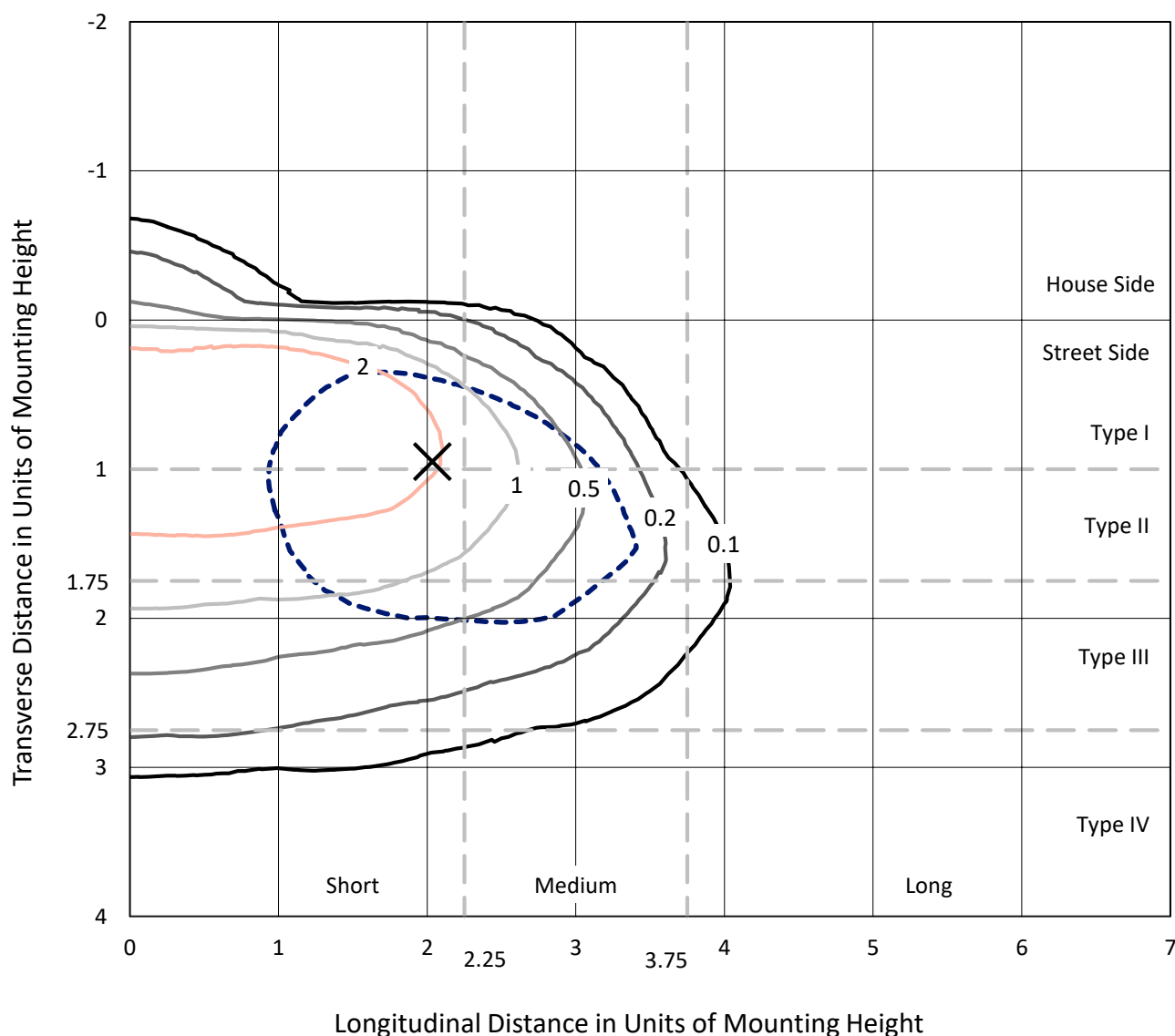
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

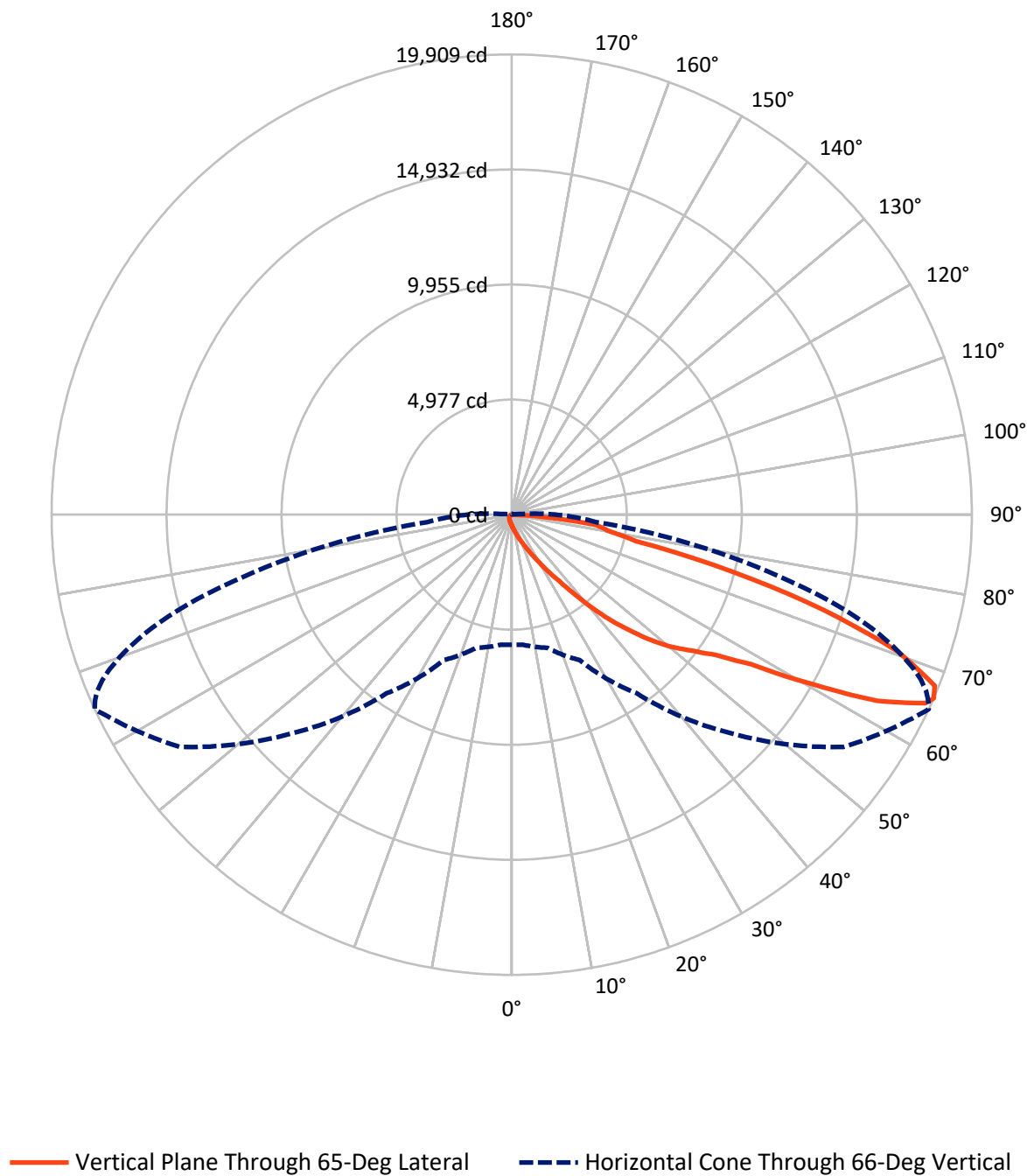


Based on 25 foot mounting height. Maximum calculated value = 4.1 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	337.2	0.0	337.2
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	15219.2	0.0	15219.2
	% Fixture	97.8	0.0	97.8
Total	Lumens	15556.3	0.0	15556.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.6	0.3
10°-20°	222.9	1.4
20°-30°	480.7	3.1
30°-40°	1026.6	6.6
40°-50°	2270.3	14.6
50°-60°	3847.4	24.7
60°-70°	5134.0	33.0
70°-80°	2261.5	14.5
80°-90°	260.5	1.7
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°	15556.3	100.0
0°-180°	15556.3	100.0

Coefficient of Utilization



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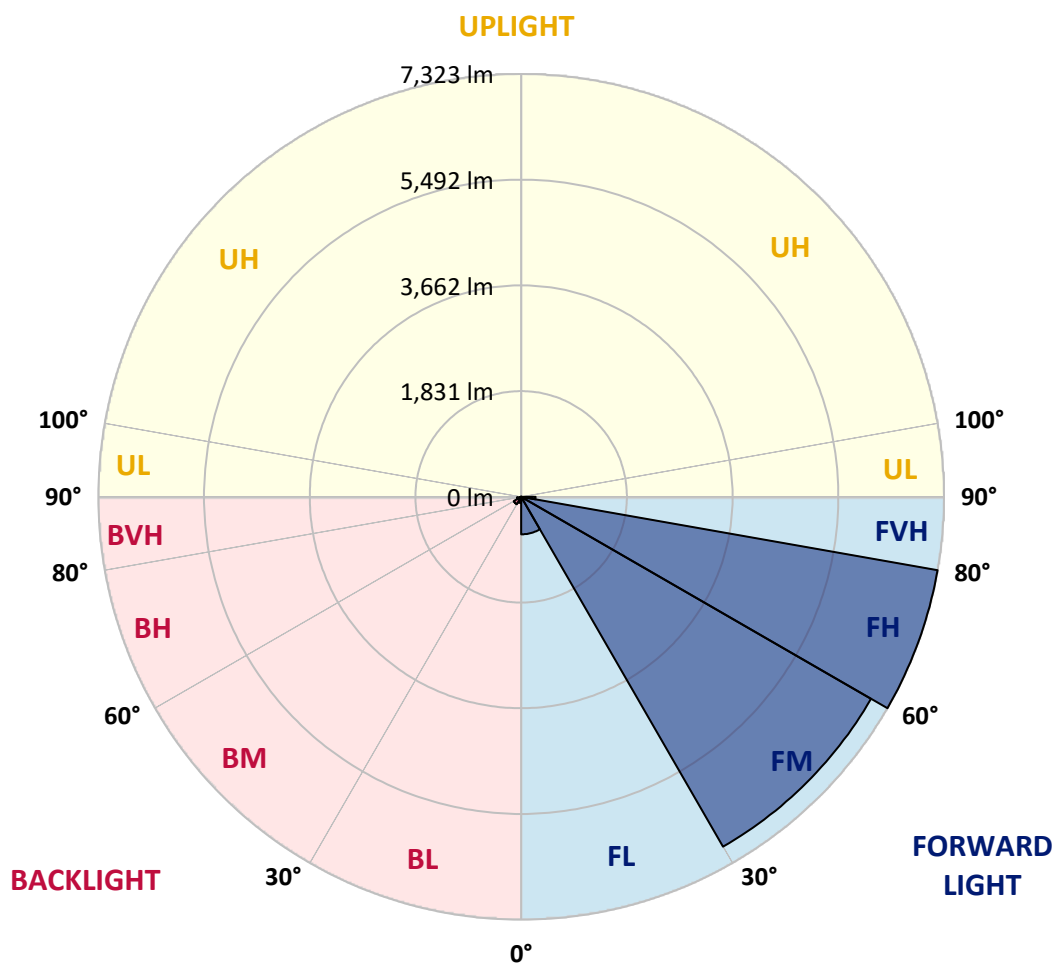
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	649.8	4.2			
FM	(30°-60°)	6996.2	45.0			
FH	(60°-80°)	7323.1	47.1			G3/7500
FVH	(80°-90°)	250.1	1.6			G3/500
BL	(0°-30°)	106.4	0.7	B0/110		
BM	(30°-60°)	148.0	1.0	B0/220		
BH	(60°-80°)	72.3	0.5	B0/110		G0/110
BVH	(80°-90°)	10.4	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	469.5	469.5	469.5	469.5	469.5	469.5	469.5	469.5	469.5	469.5	469.5
2.5°	592.2	589.2	577.2	577.2	559.2	547.4	532.3	517.4	517.4	514.3	511.4
5°	783.5	765.7	762.6	729.7	702.9	664.0	628.0	580.3	574.3	568.3	565.2
7.5°	996.0	992.9	966.0	927.1	873.4	801.5	729.7	652.0	640.0	634.0	622.0
10°	1271.1	1256.1	1220.3	1154.3	1073.7	978.0	861.4	738.6	723.7	711.8	705.8
12.5°	1534.3	1507.4	1486.3	1402.6	1300.9	1160.3	1019.8	843.4	831.4	816.5	792.6
15°	1779.5	1755.5	1719.7	1648.0	1534.3	1357.8	1193.4	978.0	948.0	927.1	909.2
17.5°	1970.9	1956.0	1914.0	1833.4	1710.6	1555.2	1357.8	1115.5	1091.7	1064.6	1031.8
20°	2153.4	2132.3	2066.6	1956.0	1824.3	1704.6	1552.3	1294.9	1262.0	1229.2	1193.4
22.5°	2326.9	2305.8	2198.3	2015.8	1875.2	1824.3	1770.6	1498.3	1447.5	1420.6	1384.6
25°	2569.1	2524.3	2356.6	2066.6	1878.3	1917.1	2009.8	1761.5	1713.7	1674.9	1618.0
27.5°	2895.1	2835.2	2572.0	2141.4	1890.1	2018.8	2284.9	2081.5	2030.6	1985.8	1923.1
30°	3262.9	3224.0	2910.0	2320.9	1976.9	2168.3	2592.9	2488.3	2428.6	2374.6	2300.0
32.5°	3633.8	3580.0	3268.9	2661.8	2210.1	2458.3	2978.9	2960.9	2883.1	2832.3	2751.5
35°	3959.8	3932.9	3702.6	3221.0	2742.6	2966.9	3493.2	3514.1	3445.4	3391.5	3301.8
37.5°	4181.2	4181.2	4136.3	3822.1	3588.9	3756.4	4249.8	4252.9	4184.1	4061.5	4016.6
40°	4294.7	4327.5	4489.2	4548.9	4536.9	4752.3	5242.9	5188.9	5132.1	5069.3	4919.8
42.5°	4528.0	4557.8	4901.8	5314.6	5583.8	5867.8	6205.8	6187.8	6119.2	6005.5	5867.8
45°	4922.9	4961.7	5371.5	6026.4	6579.6	6983.5	7198.7	7115.0	7046.1	6938.6	6866.7
47.5°	5425.2	5500.0	5963.5	6774.1	7441.0	8107.9	8332.2	8110.9	8051.2	7967.3	7850.7
50°	5960.6	6032.4	6525.8	7453.0	8206.7	9002.1	9376.1	9002.1	8915.5	8888.4	8757.0
52.5°	6424.1	6484.0	6959.5	7976.4	8792.7	9725.9	10270.2	9776.7	9713.9	9624.2	9528.5
55°	6699.3	6747.2	7192.7	8227.5	9190.7	10377.9	11134.7	10701.0	10608.2	10572.4	10434.7
57.5°	6792.1	6839.8	7240.6	8260.4	9405.9	10973.0	12184.4	12199.3	12088.7	11960.1	11918.2
60°	6792.1	6845.8	7183.8	8179.8	9615.3	11607.0	13583.9	14831.1	14591.9	14567.9	14415.4
62.5°	6510.9	6561.8	6902.7	7931.5	9896.4	12462.5	15533.9	17735.1	17666.5	17510.8	17259.6
65°	5900.7	5930.7	6265.6	7297.5	9788.7	13249.0	17223.7	19667.1	19556.5	19251.4	18928.5
66°	5625.5	5649.5	5963.5	6935.5	9435.8	13356.7	17522.8	19909.4	19727.1	19469.7	19104.9
67.5°	5227.8	5269.8	5491.0	6262.6	8589.5	12982.8	17334.5	19739.1	19580.5	19269.4	18904.5
70°	3490.3	3460.3	4240.9	4806.1	6543.8	10578.4	15551.9	17723.1	17726.2	17579.7	17433.1
72.5°	1656.9	1674.9	1902.1	2957.8	4282.7	7067.2	12378.7	14146.2	14349.6	14086.5	13903.9
75°	1190.3	1217.2	1354.9	1809.4	2554.1	4240.9	8024.1	9893.3	9899.3	9432.7	9017.2
77.5°	346.9	362.0	508.3	1115.5	1914.0	2862.1	4608.7	5500.0	5371.5	5036.4	4722.4
80°	143.5	143.5	149.5	356.0	768.6	1944.0	3224.0	4234.9	4220.0	4091.4	3906.0
82.5°	53.8	56.8	71.7	146.6	182.5	478.6	2150.3	3675.7	3666.6	3484.3	3352.6
85°	6.0	6.0	18.0	62.8	68.8	89.7	430.6	1620.9	1612.0	1620.9	1420.6
87.5°	0.0	0.0	2.9	6.0	8.9	12.0	18.0	62.8	68.8	65.7	59.8
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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	469.5	469.5	469.5	469.5	469.5	469.5	469.5	469.5	469.5	469.5	469.5
2.5°	511.4	505.4	505.4	502.5	502.5	502.5	499.4	496.5	496.5	493.4	490.5
5°	559.2	553.2	550.3	544.3	541.4	538.3	532.3	529.4	523.4	520.3	517.4
7.5°	616.0	604.1	601.1	592.2	583.2	577.2	571.2	562.3	556.3	544.3	541.4
10°	688.0	672.9	660.9	648.9	640.0	625.1	616.0	604.1	592.2	583.2	574.3
12.5°	780.6	759.7	741.7	729.7	708.8	690.9	672.9	664.0	640.0	628.0	613.1
15°	882.3	858.3	837.4	813.5	798.6	768.6	744.6	717.7	705.8	684.9	660.9
17.5°	1013.8	974.9	942.0	918.2	888.3	858.3	831.4	804.6	768.6	744.6	714.8
20°	1154.3	1121.5	1076.6	1034.8	998.9	963.1	924.1	888.3	855.4	816.5	780.6
22.5°	1334.0	1286.0	1232.3	1190.3	1142.5	1103.7	1049.7	1002.0	948.0	897.2	855.4
25°	1561.2	1498.3	1447.5	1387.7	1330.9	1271.1	1205.2	1145.4	1076.6	1028.9	957.1
27.5°	1842.3	1782.6	1713.7	1636.0	1579.1	1489.4	1402.6	1328.0	1247.2	1172.3	1091.7
30°	2201.2	2114.5	2042.6	1968.0	1854.3	1767.5	1665.8	1564.3	1453.5	1378.8	1256.1
32.5°	2631.8	2539.2	2431.5	2323.8	2219.2	2096.6	1970.9	1845.2	1722.6	1585.1	1459.5
35°	3158.3	3047.5	2924.9	2808.3	2646.9	2515.2	2356.6	2183.2	2045.7	1887.2	1728.6
37.5°	3855.2	3672.6	3564.9	3442.3	3224.0	3044.6	2868.1	2694.6	2452.4	2284.9	2060.6
40°	4728.4	4620.7	4444.3	4246.9	4049.5	3813.2	3574.0	3343.7	3062.6	2829.2	2569.1
42.5°	5754.1	5595.8	5416.3	5132.1	4931.8	4653.5	4381.5	4076.4	3732.4	3433.4	3128.3
45°	6717.2	6528.9	6391.2	6107.2	5897.8	5568.7	5239.8	4916.9	4519.0	4133.2	3780.3
47.5°	7758.1	7602.4	7375.2	7144.9	6932.6	6561.8	6205.8	5814.1	5395.3	4937.8	4480.1
50°	8673.2	8550.6	8395.0	8116.9	7880.7	7569.6	7150.9	6723.2	6193.8	5739.2	5218.9
52.5°	9450.7	9355.0	9136.7	8939.3	8727.0	8433.9	8060.1	7650.4	7079.2	6579.6	5987.5
55°	10369.0	10300.1	10108.7	9986.1	9797.8	9516.7	9166.7	8786.9	8182.7	7638.4	6968.4
57.5°	11873.3	11819.5	11651.9	11601.1	11415.6	11170.4	10739.8	10333.0	9627.3	8951.3	8185.8
60°	14364.5	14257.0	14011.6	13886.1	13494.2	13165.3	12606.1	12046.7	11194.4	10333.0	9411.9
62.5°	17032.3	16730.2	16263.7	15863.0	15306.7	14735.4	13987.7	13132.4	12133.5	11110.7	10051.9
65°	18470.8	17956.5	17367.3	16730.2	16009.6	15169.1	14227.0	13201.3	12127.6	11047.9	9929.3
66°	18635.4	18055.1	17430.2	16721.3	15919.9	15025.6	14068.5	12991.9	11876.2	10823.6	9705.0
67.5°	18429.1	17821.9	17161.0	16374.5	15507.1	14579.9	13575.0	12456.5	11382.8	10315.0	9226.4
70°	16984.5	16380.3	15791.1	14962.8	14038.5	13105.6	12154.4	10904.4	9887.5	8906.4	7937.5
72.5°	13563.0	13153.3	12570.2	11861.3	10961.0	9866.4	9073.9	7955.5	7073.2	6122.1	5371.5
75°	8475.8	7898.6	7177.8	6274.6	5586.7	4698.4	4234.9	3385.5	2883.1	2443.5	2018.8
77.5°	4333.5	3900.0	3394.6	2886.1	2398.6	1914.0	1480.3	1046.8	705.8	490.5	364.9
80°	3580.0	3197.2	2778.4	2314.9	1884.3	1462.5	1052.8	717.7	457.7	299.1	233.2
82.5°	2957.8	2634.9	2260.9	1830.3	1456.6	1148.5	798.6	520.3	322.9	209.4	164.5
85°	1259.1	1142.5	882.3	699.8	526.3	388.8	272.2	182.5	128.6	104.6	95.7
87.5°	53.8	59.8	56.8	44.9	32.9	32.9	30.0	24.0	24.0	24.0	24.0
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):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	469.5	469.5	469.5	469.5	469.5	469.5	469.5	469.5	469.5	469.5	469.5
2.5°	490.5	487.5	484.6	484.6	481.5	478.6	460.6	445.7	427.7	415.7	403.7
5°	511.4	508.3	502.5	499.4	493.4	490.5	451.7	418.6	391.7	370.9	356.0
7.5°	532.3	529.4	520.3	511.4	508.3	502.5	439.7	397.7	362.0	338.0	322.9
10°	559.2	550.3	541.4	529.4	520.3	511.4	427.7	373.8	334.9	314.0	299.1
12.5°	598.1	583.2	568.3	553.2	541.4	526.3	421.7	352.9	314.0	290.0	275.1
15°	643.1	622.0	604.1	586.3	565.2	550.3	409.7	334.9	296.0	272.2	254.3
17.5°	684.9	660.9	634.0	607.1	586.3	565.2	397.7	317.1	278.1	254.3	236.3
20°	744.6	708.8	676.0	643.1	613.1	586.3	379.8	299.1	263.2	236.3	218.3
22.5°	810.5	768.6	726.8	682.0	643.1	607.1	364.9	284.0	248.3	221.4	200.3
25°	894.3	843.4	786.6	729.7	684.9	637.1	350.0	269.2	233.2	206.3	185.4
27.5°	1010.9	939.1	876.3	804.6	735.7	682.0	338.0	257.2	218.3	191.4	170.5
30°	1169.4	1064.6	966.0	888.3	807.5	729.7	326.0	242.3	206.3	176.5	152.6
32.5°	1345.8	1223.2	1109.5	992.9	891.2	801.5	314.0	230.3	191.4	161.5	140.6
35°	1564.3	1408.6	1256.1	1121.5	998.9	879.2	302.0	218.3	179.4	146.6	125.7
37.5°	1878.3	1683.8	1483.4	1310.0	1151.4	992.9	293.1	206.3	164.5	131.7	110.6
40°	2308.9	2057.7	1812.3	1576.1	1369.7	1172.3	281.1	194.3	152.6	119.7	98.6
42.5°	2775.4	2470.3	2147.4	1881.2	1597.1	1348.9	269.2	182.5	140.6	107.7	86.8
45°	3355.7	2975.8	2584.0	2222.1	1875.2	1555.2	257.2	170.5	125.7	95.7	74.8
47.5°	3989.7	3505.2	3062.6	2608.0	2195.2	1812.3	242.3	161.5	113.7	83.7	65.7
50°	4641.7	4130.3	3570.9	3053.5	2563.1	2069.7	227.4	146.6	101.7	74.8	53.8
52.5°	5344.4	4740.3	4169.2	3526.1	2954.9	2407.5	212.3	134.6	92.6	65.7	44.9
55°	6238.7	5562.9	4892.9	4172.1	3484.3	2799.4	197.4	119.7	80.8	56.8	36.0
57.5°	7363.2	6561.8	5739.2	4925.8	4091.4	3313.8	185.4	104.6	68.8	47.8	30.0
60°	8425.0	7488.9	6492.9	5556.9	4614.7	3708.6	167.4	92.6	59.8	38.9	30.0
62.5°	8975.3	7907.5	6833.8	5802.1	4797.2	3849.2	149.5	77.7	50.9	32.9	26.9
65°	8840.7	7752.1	6711.2	5670.4	4686.6	3759.4	131.7	68.8	44.9	30.0	26.9
66°	8646.3	7569.6	6522.9	5532.9	4593.8	3663.7	122.6	65.7	42.0	30.0	24.0
67.5°	8221.6	7180.7	6181.8	5260.7	4339.5	3481.2	110.6	59.8	38.9	26.9	24.0
70°	7022.3	6077.2	5278.7	4459.2	3708.6	2934.0	89.7	50.9	32.9	24.0	24.0
72.5°	4647.5	4004.6	3472.3	2987.8	2497.2	1938.0	74.8	42.0	26.9	24.0	20.9
75°	1752.6	1585.1	1360.8	1223.2	1067.7	936.0	59.8	26.9	20.9	20.9	20.9
77.5°	311.1	287.1	254.3	233.2	215.4	197.4	47.8	18.0	18.0	20.9	20.9
80°	209.4	194.3	176.5	161.5	149.5	134.6	32.9	14.9	18.0	18.0	20.9
82.5°	149.5	140.6	131.7	119.7	110.6	98.6	20.9	14.9	18.0	18.0	18.0
85°	89.7	83.7	77.7	71.7	62.8	59.8	14.9	14.9	14.9	18.0	18.0
87.5°	24.0	20.9	24.0	24.0	18.0	20.9	12.0	12.0	12.0	14.9	14.9
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: VST-F11-LED-E-U-SL3-HSS

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	469.5	469.5	469.5	469.5	469.5
2.5°	397.7	397.7	391.7	400.8	400.8
5°	344.0	344.0	340.9	344.0	344.0
7.5°	314.0	311.1	311.1	311.1	314.0
10°	287.1	284.0	284.0	284.0	284.0
12.5°	263.2	260.3	257.2	260.3	260.3
15°	242.3	236.3	236.3	236.3	236.3
17.5°	224.3	218.3	215.4	215.4	215.4
20°	206.3	197.4	197.4	197.4	197.4
22.5°	188.3	179.4	179.4	179.4	179.4
25°	170.5	161.5	161.5	161.5	161.5
27.5°	155.5	146.6	146.6	146.6	146.6
30°	137.7	131.7	131.7	134.6	131.7
32.5°	125.7	116.6	116.6	119.7	119.7
35°	110.6	104.6	104.6	104.6	104.6
37.5°	95.7	89.7	89.7	89.7	89.7
40°	83.7	77.7	74.8	77.7	77.7
42.5°	71.7	65.7	62.8	62.8	62.8
45°	62.8	53.8	50.9	53.8	53.8
47.5°	50.9	44.9	44.9	47.8	47.8
50°	38.9	38.9	42.0	47.8	47.8
52.5°	36.0	36.0	42.0	47.8	47.8
55°	32.9	36.0	42.0	44.9	47.8
57.5°	30.0	36.0	42.0	44.9	44.9
60°	30.0	32.9	38.9	44.9	44.9
62.5°	26.9	30.0	36.0	42.0	42.0
65°	26.9	30.0	36.0	42.0	42.0
66°	26.9	30.0	36.0	42.0	42.0
67.5°	26.9	30.0	36.0	42.0	42.0
70°	26.9	30.0	36.0	38.9	38.9
72.5°	24.0	26.9	32.9	38.9	38.9
75°	24.0	26.9	32.9	38.9	38.9
77.5°	24.0	26.9	32.9	38.9	38.9
80°	24.0	26.9	32.9	36.0	38.9
82.5°	20.9	26.9	30.0	36.0	36.0
85°	20.9	24.0	30.0	32.9	36.0
87.5°	18.0	20.9	24.0	30.0	30.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)