

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: P159828

Luminaire Tested: **VST-E11-LED-E-U-T4-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P159828  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33707)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VST-E11-LED-E-U-T4-8030  
Description: VENTUS LED SITE/ROADWAY LUMINAIRE  
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT  
Light Source: (231) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 27632.2 lumens  
Efficiency: N/A  
Efficacy: 102.5 lumens/watt  
Luminous Opening: Rectangular (W 1.83' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G4

Input Watts (W): 269.7  
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

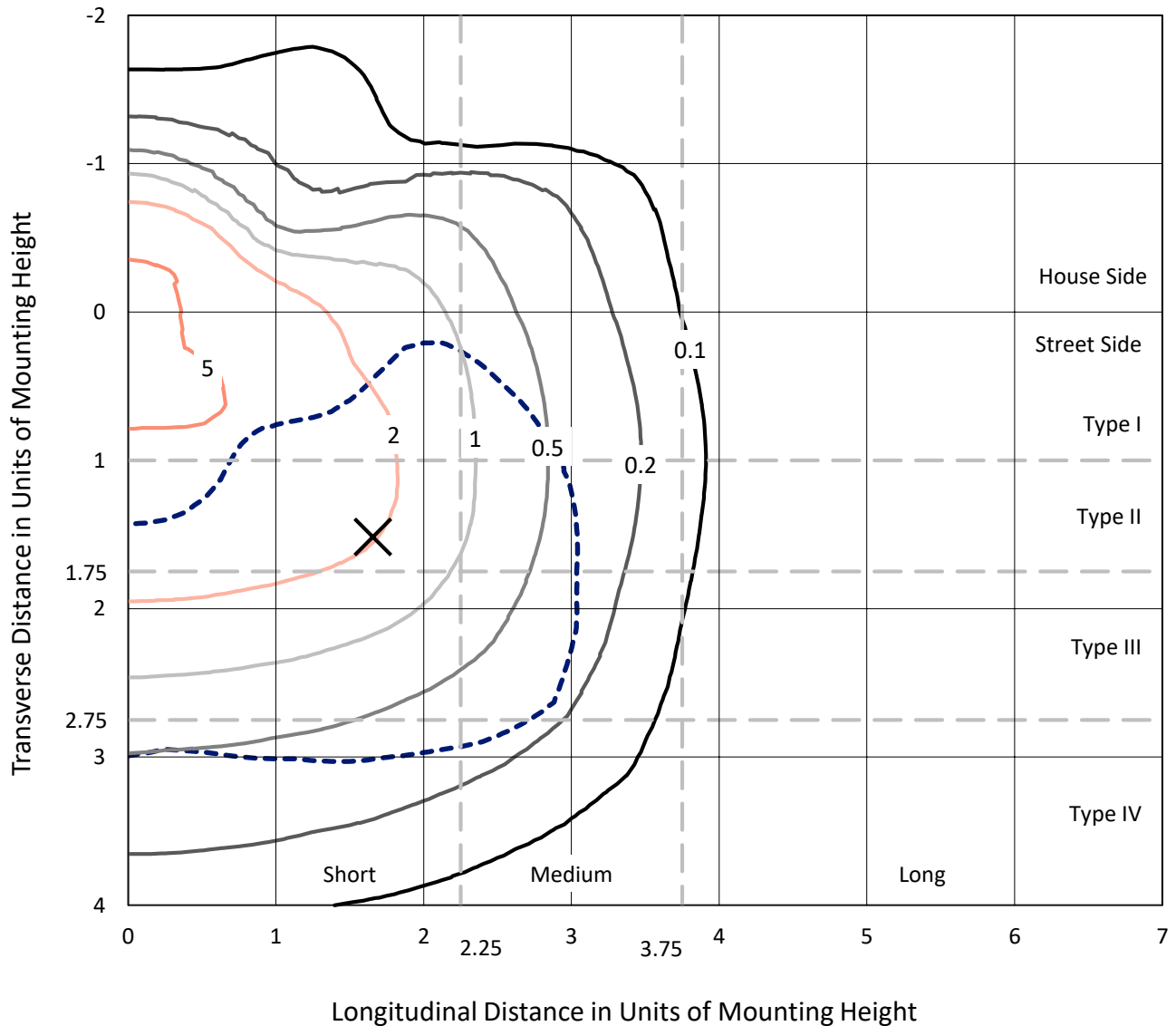


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

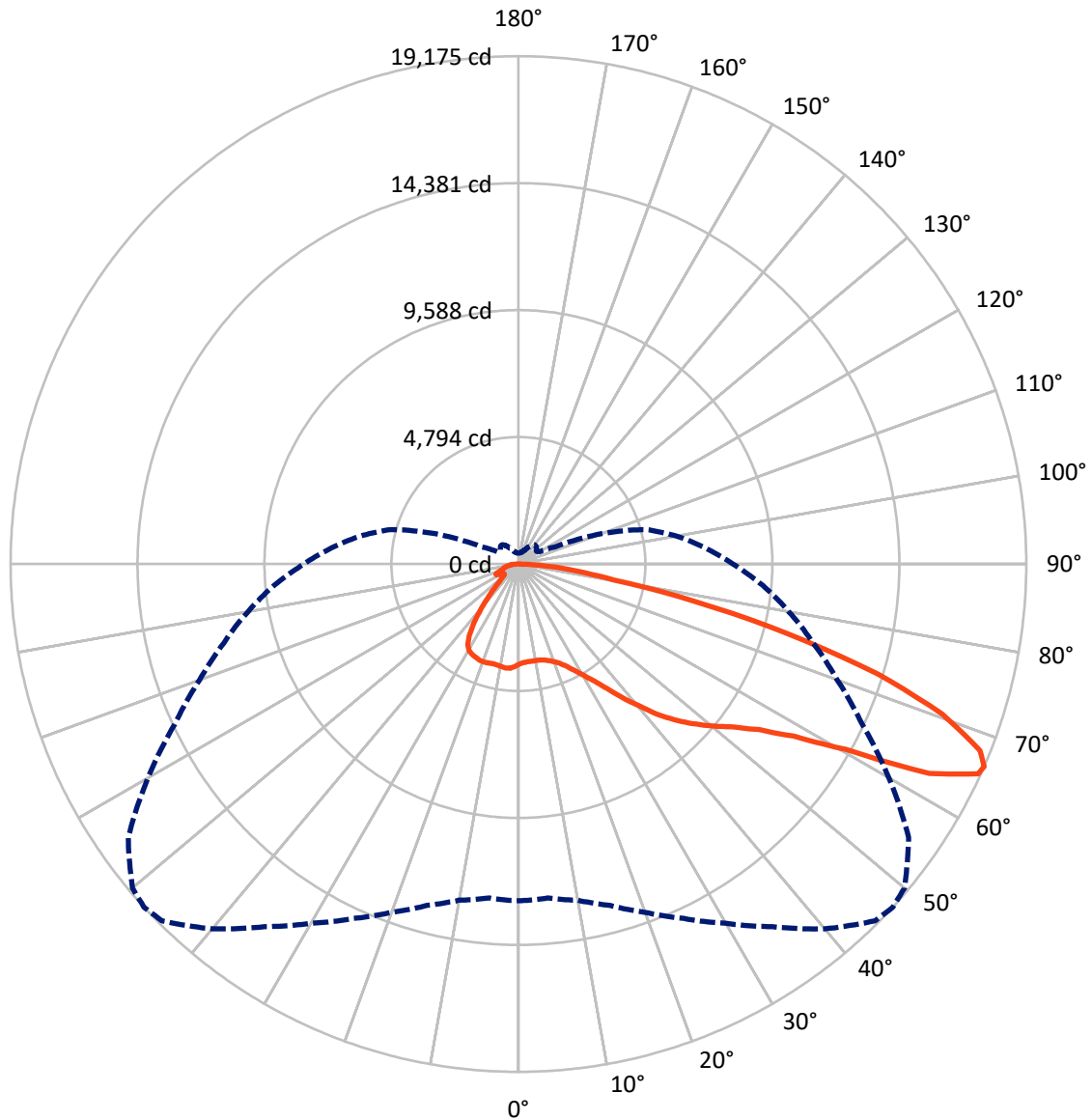


Based on 25 foot mounting height. Maximum calculated value = 6.2 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 47.5-Deg Lateral    - - - Horizontal Cone Through 66-Deg Vertical

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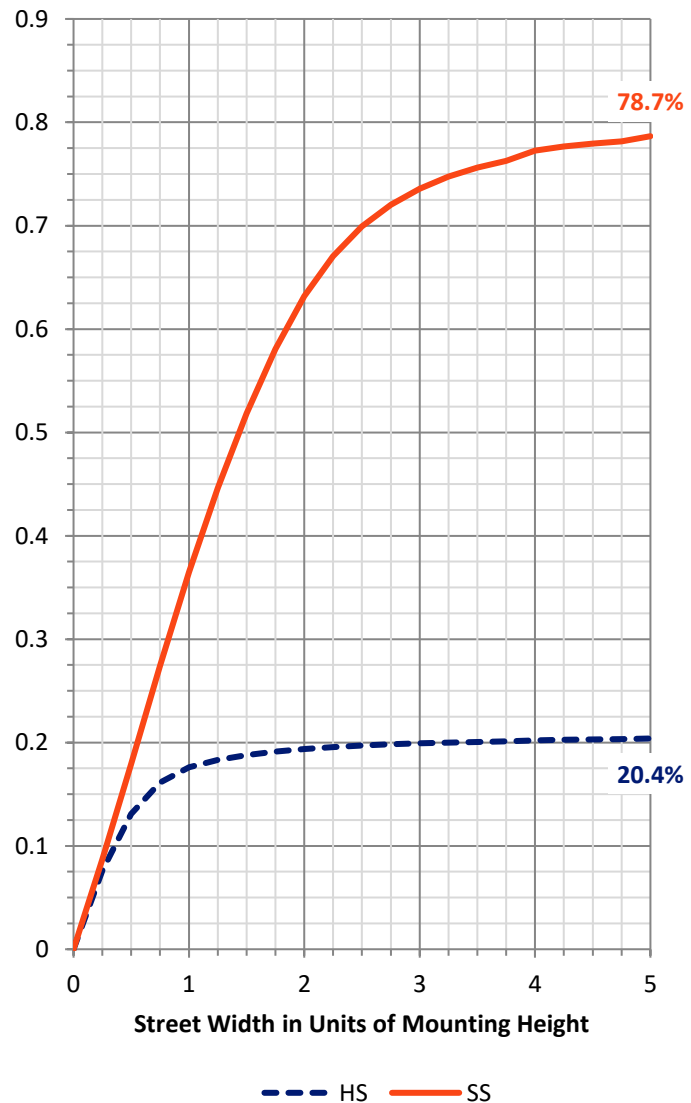
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5721.1	0.0	5721.1
	% Fixture	20.7	0.0	20.7
<b>Street Side</b>	Lumens	21911.1	0.0	21911.1
	% Fixture	79.3	0.0	79.3
<b>Total</b>	Lumens	27632.2	0.0	27632.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	364.4	1.3
10°-20°	1092.7	4.0
20°-30°	1864.3	6.7
30°-40°	2813.9	10.2
40°-50°	3657.5	13.2
50°-60°	5017.7	18.2
60°-70°	7718.8	27.9
70°-80°	4462.0	16.1
80°-90°	641.0	2.3
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°	27632.2	100.0
0°-180°	27632.2	100.0



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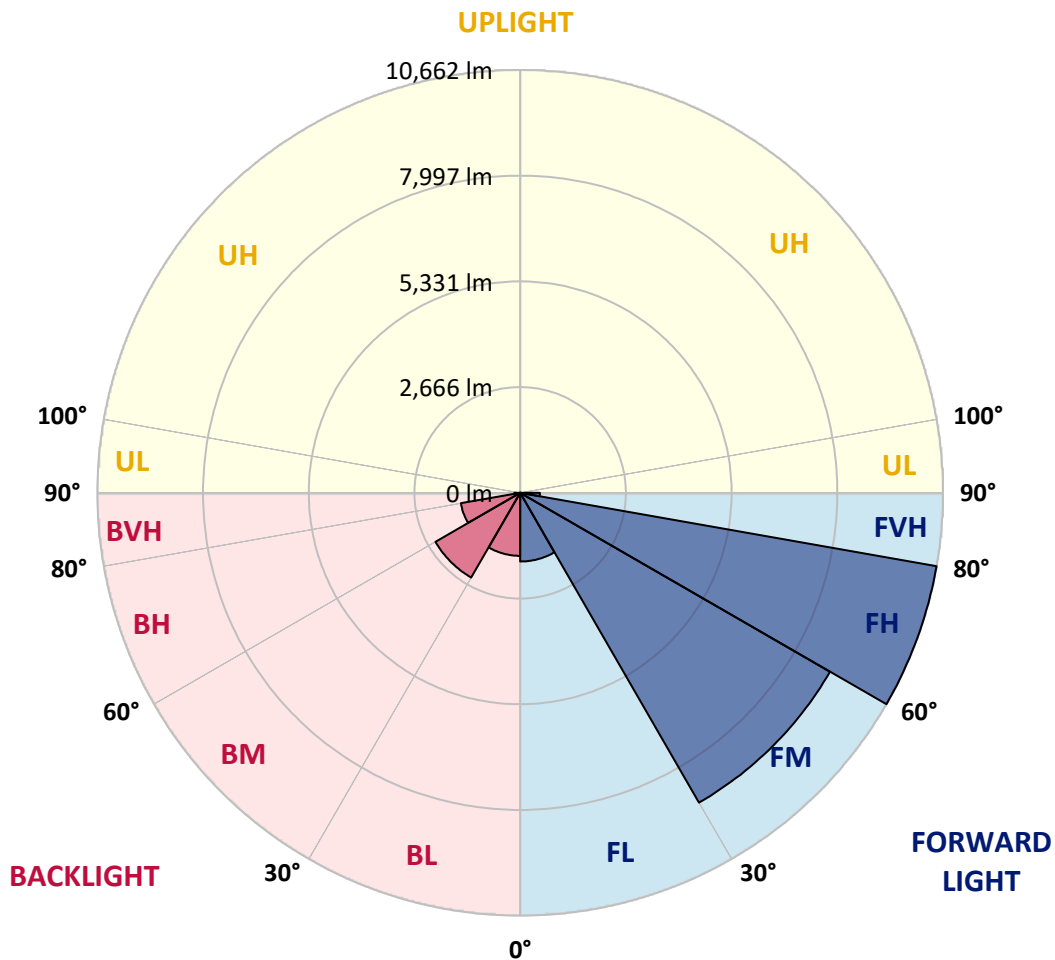
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1732.0	6.3			
FM	(30°-60°)	9020.7	32.6			
FH	(60°-80°)	10662.3	38.6			G4/12000
FVH	(80°-90°)	496.0	1.8			G3/500
BL	(0°-30°)	1589.4	5.8	B3/2500		
BM	(30°-60°)	2468.3	8.9	B2/2500		
BH	(60°-80°)	1518.4	5.5	B3/2500		G3/2500
BVH	(80°-90°)	144.9	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	3780.4	3780.4	3780.4	3780.4	3780.4	3780.4	3780.4	3780.4	3780.4	3780.4	3780.4
2.5°	3683.9	3685.7	3687.6	3687.6	3693.1	3693.1	3702.4	3708.0	3709.8	3721.0	3728.4
5°	3615.2	3613.3	3615.2	3618.9	3628.1	3635.6	3654.1	3667.1	3678.3	3696.8	3706.1
7.5°	3585.4	3589.2	3592.9	3594.7	3602.2	3620.7	3637.4	3650.4	3672.7	3695.0	3704.3
10°	3624.4	3630.0	3624.4	3628.1	3628.1	3644.9	3652.3	3661.6	3678.3	3698.7	3704.3
12.5°	3715.4	3726.6	3715.4	3706.1	3698.7	3713.6	3709.8	3702.4	3711.7	3717.3	3717.3
15°	3865.8	3865.8	3858.4	3845.4	3826.8	3828.7	3812.0	3795.3	3787.8	3774.8	3765.5
17.5°	4012.5	4008.8	3992.1	3975.4	3962.4	3956.8	3932.7	3910.4	3884.4	3864.0	3841.7
20°	4155.5	4170.3	4149.9	4125.8	4105.3	4092.3	4073.8	4029.2	3997.6	3964.2	3941.9
22.5°	4402.4	4389.4	4367.1	4331.9	4311.4	4289.2	4250.2	4201.9	4153.6	4112.8	4084.9
25°	4656.8	4643.8	4612.2	4586.2	4556.5	4538.0	4495.3	4435.8	4389.4	4326.3	4289.2
27.5°	4929.8	4918.6	4881.5	4861.1	4840.6	4818.3	4781.2	4719.9	4677.2	4604.8	4565.8
30°	5238.0	5236.1	5186.0	5182.3	5152.6	5128.4	5102.4	5050.4	5007.7	4935.3	4888.9
32.5°	5566.6	5559.2	5523.9	5512.8	5533.2	5516.5	5479.4	5425.5	5369.8	5327.1	5275.1
35°	6034.5	6021.5	6001.1	6010.4	6023.4	6069.8	6012.3	5965.8	5899.0	5843.3	5770.9
37.5°	6376.2	6357.6	6381.8	6433.7	6508.0	6543.3	6593.4	6595.3	6563.7	6489.4	6426.3
40°	6690.0	6682.6	6738.3	6810.7	6948.1	7048.3	7143.0	7189.5	7200.6	7152.3	7057.6
42.5°	6955.5	6977.8	7052.1	7163.5	7356.6	7508.8	7685.2	7794.8	7863.5	7837.5	7794.8
45°	7271.2	7282.3	7373.3	7514.4	7698.2	7950.7	8182.8	8368.5	8489.2	8487.3	8439.1
47.5°	7666.6	7668.5	7746.5	7911.7	8108.6	8364.8	8658.2	8905.1	9064.8	9072.2	9035.1
50°	8136.4	8132.7	8218.1	8374.1	8583.9	8830.8	9142.8	9451.0	9673.8	9673.8	9620.0
52.5°	8741.7	8734.3	8780.7	8918.1	9120.5	9380.5	9690.5	10047.0	10288.4	10340.4	10223.4
55°	9549.4	9560.6	9571.7	9692.4	9865.1	10071.2	10427.7	10756.3	11079.4	11109.1	11040.4
57.5°	10483.4	10446.2	10526.1	10722.9	10919.7	11177.8	11430.3	11818.4	12200.9	12265.9	12256.6
60°	11942.8	11894.5	11976.2	12226.9	12444.1	12850.8	13283.4	13784.7	14237.8	14371.5	14209.9
62.5°	13285.3	13344.7	13456.1	13747.6	14063.3	14605.4	15255.3	16115.0	16974.7	17442.6	17409.2
65°	13164.6	13108.9	13322.4	13719.7	14291.6	14982.4	15790.1	16826.1	18064.6	19004.1	19087.7
66°	12717.1	12659.5	12889.8	13344.7	13998.3	14767.0	15663.8	16718.4	17984.8	19046.8	19175.0
67.5°	11978.1	11920.5	12180.5	12594.5	13268.6	14235.9	15205.2	16358.2	17674.7	18692.2	18796.2
70°	10552.1	10474.1	10676.5	11144.4	11690.3	12626.1	13548.9	14770.7	16122.4	16935.7	16974.7
72.5°	8938.5	8756.6	8972.0	9332.2	9722.1	10496.4	11300.4	12135.9	13212.8	13964.8	14180.2
75°	6485.7	6580.4	6643.6	6881.2	7139.3	7779.9	8251.5	8951.5	9785.2	10329.3	10501.9
77.5°	3440.6	3583.6	3672.7	3910.4	4337.4	4825.8	5336.4	5769.0	6316.8	6621.3	6833.0
80°	1931.1	2031.3	2176.1	2363.7	2571.6	2946.7	3249.4	3472.2	3550.2	3604.0	3652.3
82.5°	1062.1	1316.5	1531.8	1661.8	1784.4	1934.8	2114.9	2300.6	2360.0	2270.8	2224.4
85°	165.3	243.2	740.9	904.3	984.1	1099.2	1229.2	1366.6	1368.4	1177.2	1284.9
87.5°	46.4	52.0	105.8	159.7	156.0	126.3	156.0	284.1	167.1	83.6	96.6
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-E11-LED-E-U-T4-8030

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	3780.4	3780.4	3780.4	3780.4	3780.4	3780.4	3780.4	3780.4	3780.4	3780.4	3780.4
2.5°	3732.1	3735.8	3745.1	3754.4	3763.7	3773.0	3778.5	3787.8	3795.3	3806.4	3819.4
5°	3717.3	3726.6	3743.3	3763.7	3782.3	3799.0	3812.0	3830.5	3847.2	3862.1	3884.4
7.5°	3717.3	3735.8	3763.7	3786.0	3802.7	3823.1	3843.5	3862.1	3880.7	3895.5	3910.4
10°	3719.1	3737.7	3765.5	3791.5	3810.1	3832.4	3849.1	3865.8	3886.2	3895.5	3914.1
12.5°	3726.6	3734.0	3754.4	3780.4	3802.7	3825.0	3841.7	3858.4	3880.7	3884.4	3897.4
15°	3763.7	3752.6	3758.1	3776.7	3800.8	3819.4	3838.0	3851.0	3865.8	3862.1	3873.2
17.5°	3832.4	3804.5	3793.4	3795.3	3806.4	3819.4	3826.8	3828.7	3830.5	3813.8	3815.7
20°	3925.2	3886.2	3860.2	3847.2	3832.4	3819.4	3799.0	3774.8	3752.6	3719.1	3715.4
22.5°	4064.5	4006.9	3979.1	3943.8	3899.2	3843.5	3793.4	3734.0	3685.7	3635.6	3617.0
25°	4266.9	4207.5	4177.8	4122.1	4042.2	3962.4	3890.0	3810.1	3739.6	3680.1	3652.3
27.5°	4538.0	4478.6	4447.0	4389.4	4291.0	4211.2	4110.9	4025.5	3940.1	3852.8	3817.5
30°	4866.6	4814.6	4779.4	4732.9	4647.5	4560.3	4443.3	4311.4	4175.9	4036.6	3967.9
32.5°	5254.7	5197.1	5171.1	5117.3	5028.2	4937.2	4807.2	4638.2	4411.7	4192.6	4055.2
35°	5739.3	5674.3	5644.6	5574.1	5470.1	5336.4	5197.1	4970.6	4664.2	4359.7	4135.0
37.5°	6387.3	6242.5	6144.1	5982.5	5815.4	5627.9	5429.2	5197.1	4835.1	4458.1	4146.2
40°	6961.1	6814.4	6625.0	6392.9	6132.9	5874.9	5648.3	5384.7	4991.0	4528.7	4110.9
42.5°	7674.1	7414.1	7111.5	6797.7	6452.3	6134.8	5865.6	5555.5	5096.9	4547.3	4012.5
45°	8325.8	8015.7	7610.9	7193.2	6764.2	6365.0	6062.4	5717.0	5187.8	4547.3	3893.7
47.5°	8920.0	8548.6	8064.0	7544.1	7044.6	6608.3	6264.8	5882.3	5316.0	4604.8	3858.4
50°	9469.6	9042.5	8491.1	7887.6	7326.9	6860.8	6491.3	6094.0	5510.9	4753.4	3943.8
52.5°	10048.9	9595.8	8923.7	8283.1	7664.8	7165.3	6771.7	6355.8	5763.4	4987.3	4094.2
55°	10808.3	10277.3	9514.1	8808.6	8129.0	7577.5	7130.0	6669.6	6040.1	5251.0	4278.0
57.5°	12005.9	11235.4	10472.2	9555.0	8914.4	8188.4	7698.2	7169.0	6489.4	5594.5	4554.7
60°	14102.2	13155.3	12238.0	11183.4	10392.4	9633.0	8892.1	8201.4	7382.6	6370.6	5161.8
62.5°	17095.4	16133.6	14692.7	13402.2	12208.3	11202.0	10236.4	9358.2	8307.2	7200.6	5910.1
65°	18883.5	17782.4	16064.9	14330.6	12880.5	11632.7	10527.9	9452.9	8318.4	7239.6	6136.7
66°	19026.4	17984.8	16150.3	14317.6	12811.8	11517.6	10368.3	9256.0	8093.7	7061.3	6062.4
67.5°	18760.9	17864.1	15975.7	14065.1	12525.8	11127.7	9946.8	8780.7	7612.8	6656.6	5815.4
70°	16887.4	16239.4	14620.3	12830.4	11294.8	10061.9	8816.0	7694.5	6587.9	5783.9	5160.0
72.5°	13844.2	13023.5	11890.8	10687.6	9478.9	8385.2	7252.6	6298.2	5369.8	4784.9	4343.0
75°	10169.6	9430.6	8182.8	7432.7	6634.3	5947.3	5184.1	4279.9	3620.7	3327.3	3219.7
77.5°	6446.7	5644.6	4591.8	3763.7	3236.4	2781.5	2192.9	1743.5	1396.3	1453.9	1609.8
80°	3256.8	2805.6	2100.0	1658.1	1433.4	1192.1	943.2	714.9	521.8	596.0	674.0
82.5°	2090.7	1745.4	1390.7	1095.5	924.7	815.1	651.7	473.5	352.8	397.4	486.5
85°	1258.9	1063.9	848.5	694.4	603.5	503.2	369.5	261.8	259.9	278.5	343.5
87.5°	191.2	272.9	157.8	169.0	178.3	191.2	169.0	143.0	124.4	161.5	204.2
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):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	3780.4	3780.4	3780.4	3780.4	3780.4	3780.4	3780.4	3780.4	3780.4	3780.4	3780.4
2.5°	3832.4	3836.1	3843.5	3852.8	3851.0	3864.0	3871.4	3864.0	3880.7	3880.7	3890.0
5°	3903.0	3908.5	3921.5	3930.8	3934.5	3945.7	3949.4	3947.5	3951.2	3953.1	3956.8
7.5°	3923.4	3938.2	3943.8	3949.4	3951.2	3954.9	3954.9	3951.2	3951.2	3949.4	3953.1
10°	3917.8	3923.4	3927.1	3925.2	3925.2	3921.5	3919.7	3917.8	3917.8	3914.1	3919.7
12.5°	3899.2	3899.2	3899.2	3895.5	3895.5	3893.7	3893.7	3893.7	3897.4	3899.2	3908.5
15°	3862.1	3862.1	3865.8	3864.0	3869.5	3878.8	3890.0	3897.4	3906.7	3908.5	3914.1
17.5°	3804.5	3806.4	3817.5	3841.7	3865.8	3893.7	3914.1	3919.7	3912.2	3893.7	3880.7
20°	3704.3	3728.4	3773.0	3830.5	3884.4	3919.7	3928.9	3906.7	3871.4	3823.1	3797.1
22.5°	3615.2	3663.4	3743.3	3838.0	3904.8	3928.9	3901.1	3849.1	3786.0	3730.3	3691.3
25°	3650.4	3706.1	3789.7	3871.4	3914.1	3901.1	3845.4	3771.1	3704.3	3639.3	3576.2
27.5°	3799.0	3854.7	3914.1	3938.2	3923.4	3875.1	3797.1	3717.3	3628.1	3535.3	3457.3
30°	3940.1	3971.7	3975.4	3951.2	3897.4	3819.4	3728.4	3635.6	3522.3	3410.9	3312.5
32.5°	3984.6	3947.5	3880.7	3812.0	3737.7	3657.9	3552.0	3429.5	3308.8	3182.5	3073.0
35°	3971.7	3821.3	3656.0	3509.3	3420.2	3329.2	3232.7	3069.3	2933.7	2826.0	2755.5
37.5°	3854.7	3579.9	3325.5	3112.0	2972.7	2865.0	2722.0	2586.5	2469.5	2421.2	2363.7
40°	3691.3	3271.6	2918.9	2619.9	2475.1	2337.7	2178.0	2074.0	2040.6	1996.0	1997.9
42.5°	3457.3	2911.4	2456.5	2113.0	1955.2	1804.8	1691.5	1630.3	1632.1	1595.0	1602.4
45°	3210.4	2549.4	1977.5	1635.8	1479.9	1351.7	1288.6	1270.0	1271.9	1273.8	1262.6
47.5°	3060.0	2267.1	1585.7	1240.3	1102.9	1030.5	997.1	987.8	989.7	991.5	978.5
50°	3037.7	2120.4	1323.9	948.8	859.7	818.8	802.1	792.8	792.8	785.4	774.3
52.5°	3100.8	2083.3	1195.8	822.6	737.1	700.0	687.0	679.6	668.4	653.6	633.2
55°	3201.1	2116.7	1156.8	779.8	696.3	659.2	642.4	638.7	620.2	592.3	558.9
57.5°	3386.8	2237.4	1182.8	791.0	703.7	670.3	659.2	655.4	629.4	586.7	544.0
60°	3919.7	2588.4	1312.7	854.1	757.6	729.7	729.7	724.1	688.9	627.6	566.3
62.5°	4654.9	3102.7	1489.1	941.4	831.8	828.1	859.7	861.5	798.4	700.0	603.5
65°	5009.6	3344.1	1550.4	960.0	852.3	895.0	958.1	958.1	869.0	733.4	609.0
66°	5011.4	3338.5	1531.8	937.7	830.0	885.7	950.7	950.7	857.8	724.1	599.7
67.5°	4883.3	3234.5	1470.6	896.8	779.8	831.8	889.4	887.5	804.0	687.0	573.7
70°	4380.1	2861.3	1296.0	830.0	720.4	722.3	742.7	729.7	674.0	594.2	521.8
72.5°	3776.7	2393.4	1123.4	787.3	674.0	638.7	622.0	610.9	575.6	527.3	482.8
75°	2896.6	1858.6	978.5	748.3	633.2	571.9	549.6	540.3	516.2	488.3	453.1
77.5°	1775.1	1273.8	830.0	685.2	586.7	531.0	506.9	488.3	464.2	438.2	414.1
80°	765.0	768.7	664.7	581.2	510.6	445.6	414.1	391.8	378.8	369.5	356.5
82.5°	534.8	551.5	506.9	451.2	389.9	343.5	315.7	310.1	311.9	311.9	308.2
85°	401.1	393.6	354.6	323.1	295.2	265.5	243.2	241.4	248.8	248.8	243.2
87.5°	232.1	234.0	200.5	187.5	195.0	167.1	152.3	154.1	172.7	170.8	167.1
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):**

	160°	165°	170°	175°	180°
0°	3780.4	3780.4	3780.4	3780.4	3780.4
2.5°	3890.0	3895.5	3893.7	3899.2	3893.7
5°	3962.4	3960.5	3958.7	3966.1	3956.8
7.5°	3951.2	3953.1	3953.1	3953.1	3951.2
10°	3923.4	3930.8	3934.5	3941.9	3940.1
12.5°	3914.1	3925.2	3936.4	3947.5	3949.4
15°	3915.9	3923.4	3928.9	3934.5	3936.4
17.5°	3867.7	3865.8	3860.2	3856.5	3852.8
20°	3769.3	3760.0	3750.7	3735.8	3743.3
22.5°	3646.7	3620.7	3591.0	3566.9	3565.0
25°	3503.7	3455.5	3407.2	3375.6	3364.5
27.5°	3377.5	3319.9	3269.8	3241.9	3234.5
30°	3227.1	3175.1	3130.5	3106.4	3091.5
32.5°	3004.3	2963.4	2907.7	2889.1	2887.3
35°	2694.2	2662.6	2623.6	2616.2	2606.9
37.5°	2343.3	2332.1	2313.5	2291.3	2287.6
40°	1968.2	1975.6	1970.0	1957.0	1936.6
42.5°	1606.1	1619.1	1621.0	1630.3	1639.5
45°	1279.3	1290.5	1290.5	1299.7	1310.9
47.5°	982.2	974.8	980.4	989.7	995.2
50°	742.7	737.1	727.9	720.4	713.0
52.5°	597.9	586.7	560.7	553.3	545.9
55°	527.3	506.9	488.3	480.9	480.9
57.5°	506.9	480.9	460.5	451.2	447.5
60°	510.6	473.5	447.5	432.6	427.1
62.5°	527.3	475.3	440.1	423.3	417.8
65°	525.5	471.6	438.2	419.6	414.1
66°	516.2	466.1	434.5	417.8	414.1
67.5°	501.3	458.6	430.8	415.9	410.3
70°	471.6	443.8	423.3	410.3	404.8
72.5°	447.5	428.9	410.3	395.5	391.8
75°	425.2	406.6	389.9	382.5	376.9
77.5°	391.8	375.1	365.8	358.4	354.6
80°	347.2	336.1	324.9	317.5	311.9
82.5°	302.7	287.8	276.7	271.1	267.4
85°	247.0	237.7	221.0	209.8	208.0
87.5°	165.3	156.0	150.4	141.1	131.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)