

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: P159391

Luminaire Tested: **VST-E11-LED-E-U-T2-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159391
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33705)
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-T2-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 AREA
Light Source: (231) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 34840.3 lumens
Efficiency: N/A
Efficacy: 129.2 lumens/watt
Luminous Opening: Rectangular (W 1.83' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B4 - 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



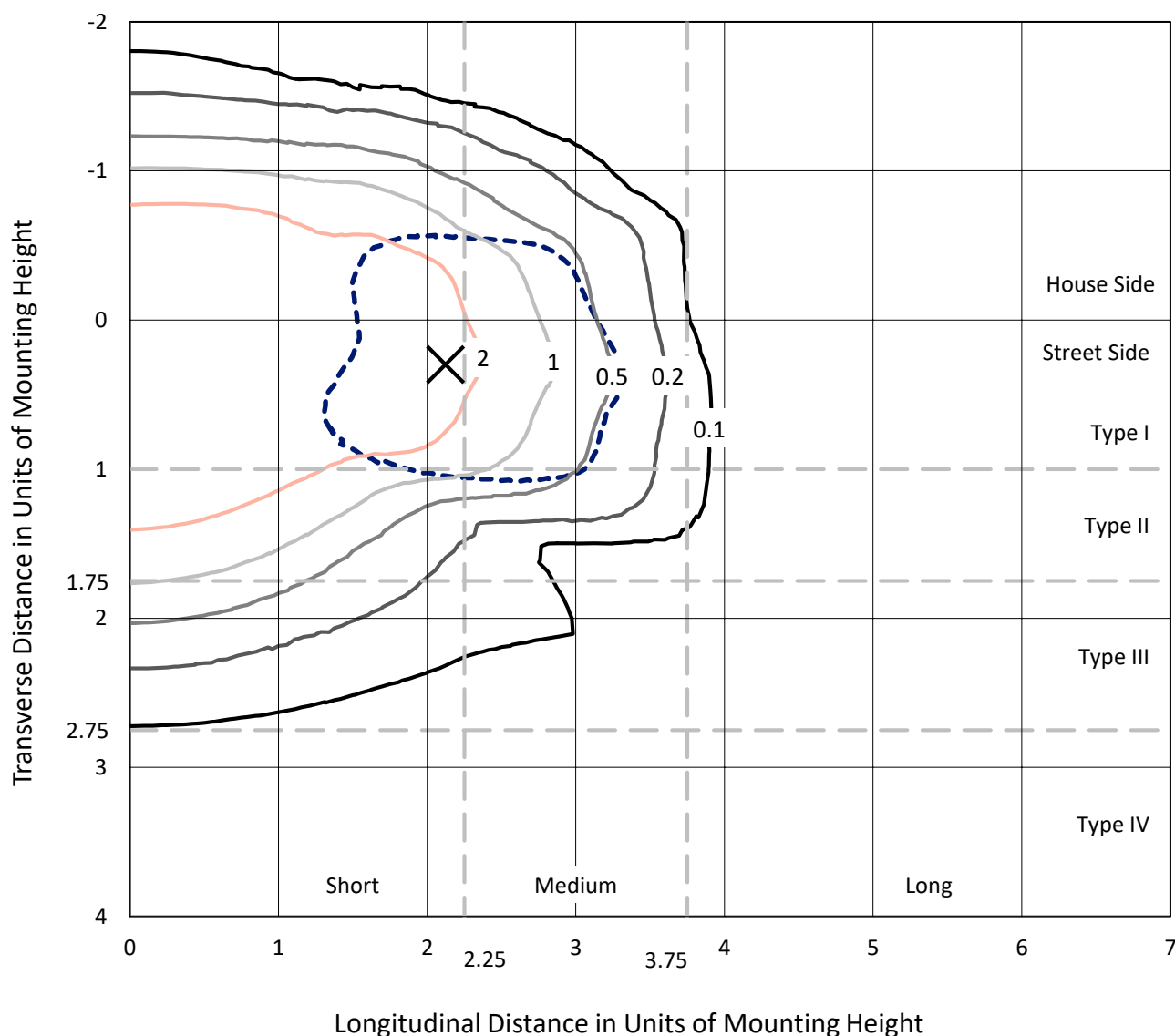
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

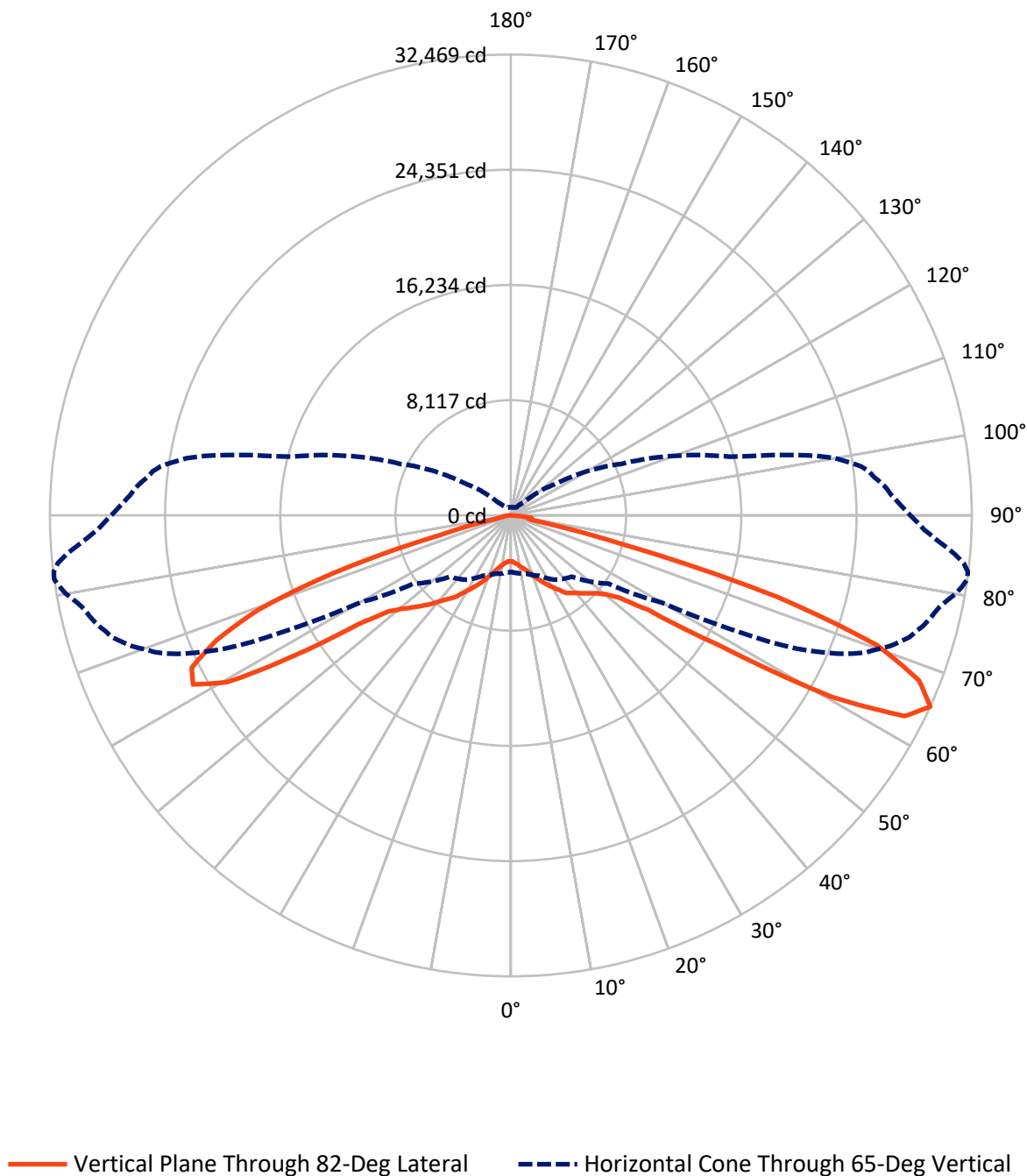


Based on 30 foot mounting height. Maximum calculated value = 4.6 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12972.2	0.0	12972.2
	% Fixture	37.2	0.0	37.2
Street Side	Lumens	21868.1	0.0	21868.1
	% Fixture	62.8	0.0	62.8
Total	Lumens	34840.3	0.0	34840.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	328.2	0.9
10°-20°	1153.1	3.3
20°-30°	2284.9	6.6
30°-40°	3916.7	11.2
40°-50°	5883.9	16.9
50°-60°	8174.7	23.5
60°-70°	9326.1	26.8
70°-80°	3212.7	9.2
80°-90°	559.9	1.6
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°	34840.3	100.0
0°-180°	34840.3	100.0

Coefficient of Utilization



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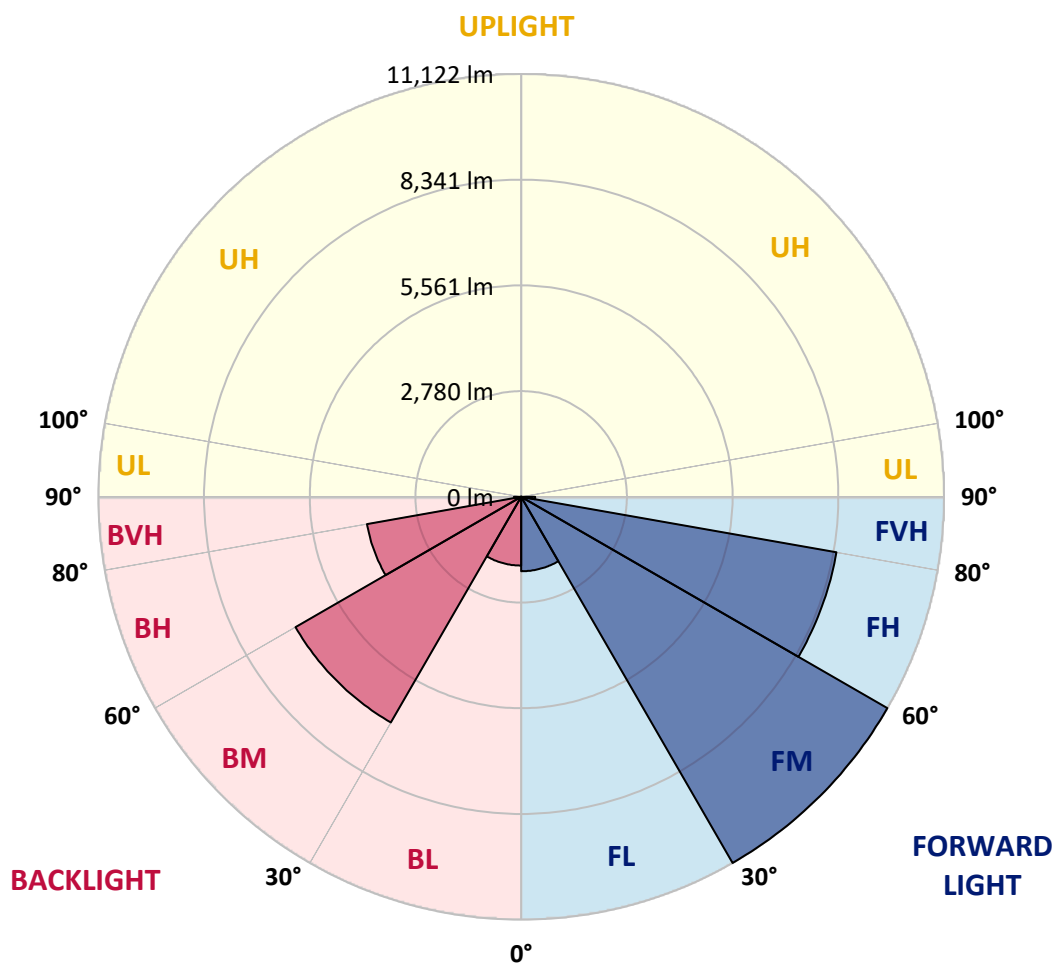
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1957.3	5.6			
FM	(30°-60°)	11121.7	31.9			
FH	(60°-80°)	8420.5	24.2			G4/12000
FVH	(80°-90°)	368.6	1.1			G3/500
BL	(0°-30°)	1808.9	5.2	B3/2500		
BM	(30°-60°)	6853.6	19.7	B4/8500		
BH	(60°-80°)	4118.3	11.8	B4/5000		G4/5000
BVH	(80°-90°)	191.3	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7
2.5°	3417.8	3420.0	3417.8	3411.0	3408.7	3388.4	3365.8	3354.5	3352.3	3343.3	3345.5
5°	3630.0	3623.2	3614.1	3602.9	3591.6	3557.7	3519.3	3499.0	3492.2	3485.5	3476.4
7.5°	3819.6	3824.1	3819.6	3803.8	3774.4	3731.5	3681.9	3650.3	3648.0	3641.2	3634.5
10°	4063.4	4074.7	4047.6	4020.5	3979.9	3914.4	3858.0	3817.3	3810.5	3801.5	3797.0
12.5°	4327.5	4329.8	4320.7	4259.8	4192.1	4101.8	4020.5	3979.9	3970.8	3959.5	3955.0
15°	4609.7	4611.9	4562.3	4503.6	4399.7	4291.4	4178.5	4133.4	4122.1	4124.3	4106.3
17.5°	4833.2	4837.7	4790.3	4715.8	4591.6	4462.9	4341.0	4304.9	4298.2	4300.4	4291.4
20°	4930.2	4937.0	4907.7	4851.2	4733.8	4621.0	4532.9	4510.3	4508.1	4503.6	4521.6
22.5°	4925.7	4928.0	4916.7	4894.1	4824.1	4758.7	4747.4	4760.9	4758.7	4763.2	4779.0
25°	4885.1	4891.9	4889.6	4898.6	4887.3	4912.2	4964.1	5011.5	5018.3	5027.3	5056.6
27.5°	4988.9	5002.5	4986.7	4995.7	5013.8	5097.3	5203.4	5275.6	5289.2	5314.0	5338.8
30°	5395.3	5377.2	5356.9	5334.3	5345.6	5397.5	5517.2	5580.4	5587.1	5605.2	5639.1
32.5°	5998.0	5977.7	5959.6	5923.5	5914.5	5891.9	5932.5	5948.3	5946.1	5964.1	5973.2
35°	6677.5	6679.7	6675.2	6702.3	6724.9	6609.8	6467.5	6429.2	6445.0	6424.7	6429.2
37.5°	7257.6	7264.4	7384.1	7533.1	7575.9	7503.7	7192.2	7038.7	6986.8	6980.0	6928.1
40°	7901.0	7901.0	8081.6	8264.5	8384.1	8474.4	8104.2	7833.3	7722.7	7691.1	7562.4
42.5°	8607.6	8571.5	8736.3	8937.2	9158.4	9363.8	9171.9	8867.2	8709.2	8652.7	8427.0
45°	9187.7	9165.2	9246.4	9433.8	9792.7	10194.6	10221.7	10065.9	9971.1	9853.7	9646.0
47.5°	9544.4	9533.1	9580.5	9783.7	10232.9	10883.1	11246.5	11325.5	11269.1	11178.8	10977.9
50°	9684.4	9668.6	9702.4	9928.2	10431.6	11289.4	12093.1	12465.5	12492.6	12512.9	12449.7
52.5°	9634.7	9614.4	9684.4	9874.0	10397.7	11431.6	12754.5	13470.1	13589.7	13691.3	13899.0
55°	9158.4	9126.8	9316.4	9673.1	10251.0	11379.7	13237.6	14436.3	14689.1	14960.0	15420.5
57.5°	8429.3	8402.2	8675.3	9165.2	9991.4	11237.5	13562.7	15657.5	16226.4	16714.0	18021.1
60°	7727.2	7704.6	7864.9	8339.0	9149.4	10544.5	13160.8	16068.4	17023.3	18075.3	20461.4
62.5°	6472.1	6411.1	6625.6	7025.1	7537.6	8722.7	11406.8	15154.1	16626.0	18172.3	21407.2
65°	3977.6	4065.6	4250.7	4693.2	5533.0	6097.3	8377.3	12260.1	14201.5	16140.6	20337.2
67.5°	2526.1	2550.9	2688.6	2995.6	3645.8	4212.4	5077.0	7693.3	9190.0	11097.5	15966.8
70°	2164.9	2180.7	2298.1	2618.6	3067.9	3765.4	3842.1	4018.2	4555.5	5770.0	9386.4
72.5°	1706.6	1733.7	1826.3	2103.9	2645.7	3395.2	4742.9	3176.2	3067.9	3169.4	4580.3
75°	1015.8	1047.4	1124.2	1275.4	1699.8	2596.0	4968.6	3695.4	3444.8	3248.4	3160.4
77.5°	537.3	514.7	566.6	654.7	873.6	1383.8	3733.8	4528.4	4352.3	4117.6	3618.7
80°	266.4	275.4	291.2	309.3	390.5	562.1	1866.9	4684.2	5192.1	5417.8	4975.4
82.5°	106.1	119.6	169.3	180.6	214.5	239.3	600.5	2596.0	3718.0	5043.1	6584.9
85°	54.2	51.9	90.3	108.4	126.4	112.9	212.2	968.4	1742.7	2715.7	4399.7
87.5°	6.8	9.0	20.3	27.1	38.4	36.1	61.0	209.9	334.1	474.1	665.9
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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CANDELA DISTRIBUTION (continued):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7
2.5°	3334.2	3332.0	3332.0	3322.9	3322.9	3325.2	3318.4	3313.9	3313.9	3316.2	3307.1
5°	3469.7	3462.9	3462.9	3453.9	3442.6	3442.6	3433.6	3431.3	3426.8	3417.8	3411.0
7.5°	3627.7	3620.9	3609.6	3602.9	3598.3	3591.6	3580.3	3575.8	3566.7	3557.7	3548.7
10°	3790.2	3781.2	3776.7	3765.4	3760.9	3747.3	3740.6	3742.8	3724.8	3718.0	3720.2
12.5°	3952.8	3943.7	3927.9	3923.4	3921.2	3907.6	3900.8	3896.3	3882.8	3880.5	3873.8
15°	4097.2	4101.8	4095.0	4083.7	4074.7	4072.4	4065.6	4061.1	4052.1	4043.1	4034.0
17.5°	4284.6	4291.4	4282.3	4266.5	4266.5	4264.3	4266.5	4264.3	4248.5	4255.3	4250.7
20°	4523.9	4528.4	4505.8	4512.6	4517.1	4514.9	4521.6	4528.4	4523.9	4523.9	4530.7
22.5°	4799.3	4806.1	4792.5	4801.6	4815.1	4803.8	4824.1	4821.9	4826.4	4833.2	4835.4
25°	5081.5	5095.0	5083.7	5108.6	5099.5	5108.6	5133.4	5126.6	5137.9	5156.0	5162.7
27.5°	5363.7	5372.7	5374.9	5390.7	5406.5	5420.1	5451.7	5451.7	5460.7	5492.3	5492.3
30°	5659.4	5668.4	5677.4	5700.0	5709.0	5733.9	5765.5	5774.5	5770.0	5815.1	5828.7
32.5°	6000.3	6009.3	6025.1	6052.2	6063.5	6088.3	6088.3	6113.1	6131.2	6169.6	6171.8
35°	6454.0	6460.8	6454.0	6451.7	6467.5	6501.4	6503.7	6539.8	6555.6	6594.0	6605.2
37.5°	6907.7	6905.5	6876.1	6844.5	6846.8	6833.2	6824.2	6840.0	6846.8	6849.0	6873.9
40°	7519.5	7460.8	7415.7	7336.7	7300.5	7244.1	7210.2	7208.0	7171.9	7167.3	7174.1
42.5°	8320.9	8253.2	8147.1	8013.9	7912.3	7808.5	7731.7	7686.6	7607.5	7566.9	7533.1
45°	9440.6	9273.5	9147.1	8989.1	8792.7	8612.1	8422.5	8336.7	8185.4	8092.9	7989.1
47.5°	10808.6	10643.8	10449.7	10287.1	10029.8	9779.2	9519.6	9291.6	9027.5	8817.5	8646.0
50°	12294.0	12196.9	12056.9	11905.7	11573.9	11409.1	11081.7	10772.5	10488.0	10113.3	9786.0
52.5°	13817.7	13874.2	13842.6	13788.4	13578.5	13515.2	13233.1	12856.1	12569.4	12312.0	11743.2
55°	15695.9	15763.6	15899.1	15978.1	15953.3	16113.5	16043.6	15750.1	15635.0	15515.3	15111.2
57.5°	18569.6	19052.7	19569.7	20023.4	20129.5	20698.4	20576.5	20870.0	21077.6	20928.7	20797.7
60°	21633.0	22608.2	23486.3	24405.1	25152.3	25712.2	26452.6	26951.5	27265.3	27829.6	27874.8
62.5°	22867.8	24192.9	25308.1	26373.6	27260.7	28037.3	28705.5	29394.0	29958.4	30468.6	30836.5
65°	22190.6	23574.4	24926.6	26007.9	26861.2	27529.4	28256.3	28802.6	29357.9	29685.2	30071.3
67.5°	18447.7	20280.8	21944.5	23163.5	24330.6	25010.1	25870.2	26407.4	26996.6	27342.0	27590.3
70°	12027.6	14413.7	16686.9	18535.8	20111.5	20903.8	21942.2	22675.9	23384.7	23402.8	23815.9
72.5°	6490.1	8485.7	10388.7	12278.2	14075.1	15129.3	16154.2	17045.9	17750.2	17449.9	17860.8
75°	3614.1	4548.7	5589.4	6724.9	7819.7	8422.5	9187.7	9192.3	9555.7	8984.6	9129.1
77.5°	3476.4	3433.6	3449.4	3481.0	3535.1	3420.0	3417.8	3347.8	3239.4	3043.0	3076.9
80°	4566.8	4020.5	3627.7	3011.4	2424.5	1977.5	1853.4	1882.7	1970.7	2146.8	2370.3
82.5°	6603.0	6142.5	5483.3	4512.6	3541.9	2731.5	2243.9	1991.1	1979.8	2155.8	2494.5
85°	4808.3	5086.0	5043.1	4210.1	3471.9	2819.5	2052.0	1733.7	1435.7	1365.7	1485.4
87.5°	708.8	586.9	661.4	553.1	401.8	311.5	273.1	219.0	209.9	214.5	234.8
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):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7
2.5°	3309.4	3300.4	3291.3	3298.1	3291.3	3289.1	3282.3	3277.8	3275.5	3275.5	3275.5
5°	3411.0	3399.7	3392.9	3390.7	3383.9	3377.1	3374.9	3363.6	3361.3	3361.3	3354.5
7.5°	3548.7	3539.7	3528.4	3521.6	3517.1	3505.8	3494.5	3492.2	3490.0	3481.0	3474.2
10°	3709.0	3695.4	3681.9	3681.9	3672.8	3670.6	3659.3	3643.5	3641.2	3627.7	3623.2
12.5°	3860.2	3855.7	3839.9	3835.4	3828.6	3821.8	3815.1	3808.3	3801.5	3790.2	3794.7
15°	4040.8	4029.5	4016.0	4018.2	4016.0	4006.9	3997.9	3991.1	3986.6	3982.1	3982.1
17.5°	4257.5	4253.0	4250.7	4239.5	4230.4	4237.2	4237.2	4237.2	4225.9	4228.2	4230.4
20°	4532.9	4537.4	4532.9	4523.9	4521.6	4528.4	4512.6	4537.4	4523.9	4514.9	4519.4
22.5°	4837.7	4853.5	4835.4	4837.7	4849.0	4853.5	4837.7	4858.0	4851.2	4837.7	4849.0
25°	5169.5	5180.8	5171.8	5169.5	5176.3	5192.1	5189.8	5187.6	5203.4	5189.8	5196.6
27.5°	5510.4	5517.2	5521.7	5528.5	5533.0	5530.7	5539.7	5539.7	5548.8	5533.0	5539.7
30°	5849.0	5849.0	5858.0	5867.1	5867.1	5867.1	5885.1	5887.4	5873.8	5878.4	5862.6
32.5°	6210.2	6212.5	6221.5	6221.5	6239.5	6241.8	6262.1	6235.0	6262.1	6239.5	6244.1
35°	6634.6	6663.9	6668.5	6691.0	6709.1	6715.9	6715.9	6718.1	6742.9	6724.9	6731.7
37.5°	6882.9	6889.7	6907.7	6919.0	6919.0	6928.1	6934.8	6928.1	6934.8	6932.6	6939.3
40°	7176.4	7169.6	7189.9	7194.4	7185.4	7196.7	7194.4	7187.7	7205.7	7192.2	7201.2
42.5°	7533.1	7494.7	7492.4	7510.5	7492.4	7501.4	7499.2	7483.4	7506.0	7512.7	7506.0
45°	7914.6	7894.2	7853.6	7853.6	7835.5	7828.8	7831.0	7828.8	7831.0	7858.1	7867.2
47.5°	8535.4	8411.2	8341.2	8275.7	8221.6	8219.3	8194.5	8208.0	8226.1	8271.2	8311.9
50°	9576.0	9289.3	9113.3	8950.7	8833.3	8792.7	8745.3	8740.8	8756.6	8808.5	8878.5
52.5°	11431.6	11034.3	10659.6	10311.9	10009.5	9776.9	9661.8	9600.9	9578.3	9630.2	9697.9
55°	14826.8	14077.3	13549.1	13196.9	12445.2	12126.9	11718.3	11531.0	11348.1	11366.2	11481.3
57.5°	20628.4	20224.3	19781.9	19165.6	18705.1	18149.8	17129.4	16560.5	16585.4	16718.5	16303.2
60°	28231.4	27822.8	27640.0	27080.2	26759.6	26536.1	25994.3	25050.7	24716.6	24653.4	23890.4
62.5°	31118.7	31215.8	31360.2	31518.3	31509.2	31606.3	31132.2	30825.2	30439.2	29938.1	29184.1
65°	30364.7	30610.8	30904.2	31328.6	31811.7	32168.4	32468.6	32432.5	32071.3	31403.1	30606.3
67.5°	27811.6	28055.4	28269.8	28838.7	29631.1	30355.7	30996.8	31432.5	31190.9	30637.9	29707.8
70°	23973.9	24150.0	24285.5	24779.8	25648.9	26533.9	27371.4	28102.8	28028.3	27357.8	26615.1
72.5°	17370.9	17797.6	18027.9	17994.0	18531.3	19522.3	19639.7	20265.0	20438.8	19716.4	18533.5
75°	8463.1	8469.9	8203.5	8115.5	8142.6	8314.1	7986.8	8007.1	7894.2	7381.8	6959.7
77.5°	2957.2	2876.0	2681.8	2451.6	2122.0	1812.7	1498.9	1363.5	1318.3	1185.2	1092.6
80°	2548.6	2668.3	2629.9	2440.3	2092.6	1668.2	1246.1	923.3	787.8	740.4	695.3
82.5°	2894.0	3354.5	3648.0	3632.2	3155.9	2370.3	1478.6	848.8	605.0	530.5	487.6
85°	1614.1	1736.0	1769.8	1611.8	1338.7	914.3	510.2	358.9	304.8	277.7	250.6
87.5°	257.3	234.8	230.3	200.9	189.6	173.8	153.5	144.5	133.2	126.4	126.4
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: P159391

CATALOG NUMBER: VST-E11-LED-E-U-T2-7050

CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	91°	92°	93°	94°	95°	96°	97°
0°	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7
2.5°	3273.3	3271.0	3264.2	3257.5	3253.0	3250.7	3248.4	3243.9	3241.7	3239.4	3234.9
5°	3350.0	3345.5	3334.2	3322.9	3318.4	3311.7	3304.9	3300.4	3295.9	3293.6	3284.6
7.5°	3469.7	3465.2	3451.6	3442.6	3440.3	3422.3	3420.0	3413.2	3401.9	3399.7	3386.1
10°	3614.1	3611.9	3600.6	3593.8	3589.3	3580.3	3566.7	3555.5	3544.2	3544.2	3535.1
12.5°	3781.2	3772.2	3778.9	3763.1	3758.6	3749.6	3742.8	3740.6	3727.0	3715.7	3713.5
15°	3977.6	3966.3	3966.3	3961.8	3957.3	3948.2	3946.0	3948.2	3934.7	3939.2	3925.7
17.5°	4221.4	4225.9	4223.7	4223.7	4212.4	4212.4	4194.3	4216.9	4201.1	4212.4	4207.9
20°	4526.2	4528.4	4523.9	4530.7	4535.2	4532.9	4530.7	4528.4	4535.2	4544.2	4537.4
22.5°	4851.2	4851.2	4849.0	4873.8	4846.7	4867.0	4873.8	4860.3	4896.4	4891.9	4898.6
25°	5203.4	5203.4	5221.4	5241.8	5246.3	5230.5	5239.5	5228.2	5250.8	5268.8	5273.4
27.5°	5530.7	5560.1	5573.6	5560.1	5571.3	5596.2	5593.9	5593.9	5609.7	5605.2	5648.1
30°	5867.1	5885.1	5903.2	5894.2	5898.7	5930.3	5932.5	5934.8	5955.1	5984.5	6016.1
32.5°	6250.8	6268.9	6259.9	6289.2	6286.9	6325.3	6332.1	6338.9	6402.1	6390.8	6456.3
35°	6722.6	6740.7	6731.7	6763.3	6758.8	6772.3	6797.1	6824.2	6835.5	6901.0	6952.9
37.5°	6943.9	6943.9	6964.2	7000.3	7013.8	7036.4	7074.8	7108.7	7165.1	7235.1	7316.3
40°	7210.2	7217.0	7244.1	7282.5	7307.3	7359.2	7429.2	7476.6	7562.4	7639.1	7734.0
42.5°	7533.1	7562.4	7594.0	7645.9	7700.1	7781.4	7880.7	7941.6	8054.5	8153.8	8271.2
45°	7910.0	7939.4	8013.9	8108.7	8187.7	8278.0	8359.3	8503.7	8605.3	8709.2	8810.8
47.5°	8366.0	8451.8	8512.8	8625.6	8722.7	8842.4	8943.9	9079.4	9190.0	9316.4	9402.2
50°	8950.7	9056.8	9135.8	9282.6	9377.4	9510.6	9639.2	9740.8	9853.7	9977.8	10047.8
52.5°	9790.5	9898.8	9998.2	10181.0	10298.4	10388.7	10560.3	10686.7	10790.5	10880.8	10957.6
55°	11610.0	11578.4	11853.8	12208.2	12248.8	12576.2	12637.1	12743.2	12935.1	12962.2	13176.6
57.5°	16808.8	16646.3	17045.9	17565.1	17474.8	17310.0	17998.5	18041.4	17944.3	18203.9	17910.5
60°	24003.3	23718.8	23827.2	23969.4	23764.0	23666.9	23700.8	23797.8	23703.0	23599.2	23314.8
62.5°	28807.1	28369.1	28055.4	27791.2	27457.1	27215.6	26944.7	26610.6	26520.3	26141.1	25822.8
65°	29832.0	29150.2	28653.6	28154.7	27694.2	27267.5	26858.9	26572.2	26193.0	25743.8	25411.9
67.5°	28705.5	27861.2	27134.3	26409.7	25888.2	25260.7	24953.7	24486.4	24019.1	23504.4	23199.6
70°	25432.2	24551.8	23637.6	22928.7	22219.9	21443.3	21292.1	20739.0	20470.4	19768.3	19646.4
72.5°	17553.8	16966.9	16558.3	15682.4	15251.2	14853.9	14727.5	14215.0	14269.2	13499.4	13779.4
75°	6241.8	6158.3	6038.6	5544.3	5456.2	5302.7	5262.1	5226.0	5591.7	5083.7	5451.7
77.5°	1072.3	1065.5	1004.6	975.2	1031.6	995.5	1004.6	986.5	1092.6	1108.4	1083.6
80°	665.9	647.9	627.6	614.0	616.3	602.7	605.0	609.5	616.3	614.0	620.8
82.5°	456.0	440.2	431.2	422.1	435.7	440.2	451.5	462.8	480.8	492.1	505.7
85°	248.3	228.0	228.0	225.7	243.8	257.3	275.4	298.0	329.6	356.7	386.0
87.5°	126.4	121.9	124.2	128.7	144.5	155.8	178.3	198.7	225.7	255.1	282.2
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: P159391

CATALOG NUMBER: VST-E11-LED-E-U-T2-7050

CANDELA DISTRIBUTION (continued):

	98°	99°	100°	101°	102°	103°	104°	105°	115°	125°	135°
0°	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7	3241.7
2.5°	3232.6	3232.6	3230.4	3230.4	3228.1	3225.9	3223.6	3216.8	3192.0	3169.4	3153.6
5°	3282.3	3275.5	3273.3	3266.5	3264.2	3259.7	3253.0	3246.2	3201.0	3160.4	3131.1
7.5°	3383.9	3374.9	3370.3	3363.6	3356.8	3347.8	3338.7	3332.0	3277.8	3230.4	3194.3
10°	3517.1	3512.6	3510.3	3501.3	3501.3	3487.7	3485.5	3469.7	3411.0	3368.1	3336.5
12.5°	3702.2	3693.2	3690.9	3679.6	3684.1	3679.6	3675.1	3666.1	3623.2	3573.5	3530.6
15°	3932.4	3932.4	3921.2	3912.1	3914.4	3909.9	3918.9	3907.6	3880.5	3835.4	3765.4
17.5°	4210.1	4205.6	4210.1	4203.3	4207.9	4212.4	4201.1	4203.3	4189.8	4133.4	4029.5
20°	4532.9	4526.2	4553.2	4542.0	4566.8	4544.2	4548.7	4555.5	4555.5	4481.0	4341.0
22.5°	4903.1	4898.6	4898.6	4921.2	4930.2	4932.5	4941.5	4948.3	4966.4	4871.5	4648.1
25°	5273.4	5289.2	5291.4	5320.8	5334.3	5334.3	5341.1	5365.9	5420.1	5289.2	5000.2
27.5°	5650.4	5688.7	5697.8	5718.1	5738.4	5758.7	5774.5	5792.6	5880.6	5738.4	5361.4
30°	6027.3	6070.2	6101.8	6124.4	6149.2	6198.9	6207.9	6244.1	6390.8	6217.0	5704.5
32.5°	6469.8	6530.8	6571.4	6600.7	6639.1	6686.5	6713.6	6758.8	6901.0	6616.5	5955.1
35°	6998.0	7034.2	7092.9	7142.5	7165.1	7246.4	7289.2	7300.5	7408.9	6961.9	6140.2
37.5°	7363.7	7424.7	7526.3	7596.3	7636.9	7682.0	7754.3	7801.7	7905.5	7275.7	6232.8
40°	7828.8	7921.3	8002.6	8106.4	8171.9	8205.8	8278.0	8316.4	8329.9	7544.3	6203.4
42.5°	8395.4	8478.9	8587.3	8670.8	8720.5	8758.8	8817.5	8833.3	8657.3	7670.8	6045.4
45°	8928.1	9056.8	9149.4	9210.3	9246.4	9266.8	9302.9	9305.1	8928.1	7607.5	5774.5
47.5°	9501.5	9594.1	9679.9	9722.8	9718.2	9722.8	9709.2	9700.2	9063.6	7388.6	5426.9
50°	10135.9	10196.8	10232.9	10253.3	10264.5	10221.7	10160.7	10120.1	9074.9	7077.0	5074.7
52.5°	10986.9	11063.7	11056.9	11054.6	10964.3	10923.7	10761.2	10677.7	9009.4	6711.3	4677.4
55°	13142.8	13068.3	12921.5	12993.8	12625.8	12433.9	12181.1	11946.3	9095.2	6363.7	4216.9
57.5°	18027.9	18057.2	17639.6	17416.1	16795.3	16018.7	15393.4	14786.2	9867.2	6151.5	3616.4
60°	23125.1	22741.4	22210.9	21402.7	20603.6	19450.0	18337.1	17285.2	10637.0	5930.3	2905.3
62.5°	25351.0	24804.7	24003.3	22958.1	21703.0	20292.1	18906.0	17623.8	10264.5	5214.7	2113.0
65°	24899.5	24064.2	23179.3	21955.8	20429.8	18883.4	17264.8	15955.5	8587.3	3889.6	1302.5
67.5°	22538.2	21829.4	20894.8	19443.3	17811.1	16201.6	14718.5	13251.1	6379.5	2424.5	729.2
70°	19023.4	18330.3	17382.2	15896.8	14267.0	12727.4	11156.2	9959.8	4065.6	1169.3	526.0
72.5°	13196.9	12634.8	11964.4	10905.7	9476.7	8077.1	7013.8	6095.1	2252.9	620.8	480.8
75°	5359.1	5361.4	5239.5	4792.5	4049.8	3492.2	2977.6	2526.1	941.3	528.2	474.1
77.5°	1214.5	1234.8	1349.9	1280.0	1153.5	1079.1	966.2	853.3	573.4	544.0	478.6
80°	614.0	616.3	609.5	611.8	605.0	607.2	598.2	591.4	537.3	559.8	478.6
82.5°	512.4	523.7	521.5	521.5	523.7	523.7	523.7	521.5	557.6	589.2	462.8
85°	406.3	428.9	447.0	465.0	485.3	498.9	505.7	512.4	541.8	580.2	419.9
87.5°	307.0	334.1	356.7	374.7	406.3	406.3	428.9	444.7	444.7	453.7	221.2
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: P159391

CATALOG NUMBER: VST-E11-LED-E-U-T2-7050

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	3241.7	3241.7	3241.7	3241.7	3241.7
2.5°	3131.1	3122.0	3113.0	3108.5	3099.5
5°	3108.5	3090.4	3079.1	3079.1	3070.1
7.5°	3173.9	3167.2	3151.4	3142.3	3151.4
10°	3313.9	3302.6	3284.6	3271.0	3277.8
12.5°	3501.3	3456.1	3420.0	3404.2	3392.9
15°	3695.4	3605.1	3532.9	3492.2	3481.0
17.5°	3903.1	3745.1	3636.7	3575.8	3564.5
20°	4115.3	3918.9	3765.4	3686.4	3684.1
22.5°	4370.4	4108.5	3912.1	3808.3	3801.5
25°	4639.0	4277.8	4018.2	3885.0	3871.5
27.5°	4871.5	4413.3	4083.7	3925.7	3912.1
30°	5065.7	4514.9	4137.9	3955.0	3937.0
32.5°	5205.6	4573.6	4160.4	3964.1	3943.7
35°	5250.8	4551.0	4097.2	3882.8	3860.2
37.5°	5189.8	4404.2	3921.2	3684.1	3657.0
40°	5007.0	4146.9	3634.5	3390.7	3356.8
42.5°	4727.1	3830.9	3289.1	3056.6	3013.7
45°	4381.7	3474.2	2945.9	2686.3	2666.0
47.5°	4020.5	3099.5	2559.9	2325.2	2300.3
50°	3630.0	2666.0	2182.9	1927.8	1927.8
52.5°	3164.9	2243.9	1745.0	1553.1	1537.3
55°	2629.9	1767.6	1390.6	1243.8	1223.5
57.5°	2054.3	1359.0	1110.7	1024.9	1002.3
60°	1510.2	1020.4	893.9	846.5	837.5
62.5°	1024.9	776.6	720.1	699.8	697.5
65°	693.0	605.0	589.2	582.4	584.7
67.5°	532.8	503.4	496.6	494.4	494.4
70°	462.8	444.7	437.9	440.2	437.9
72.5°	435.7	410.9	413.1	417.6	415.4
75°	426.7	395.1	404.1	406.3	397.3
77.5°	419.9	377.0	399.6	406.3	381.5
80°	406.3	361.2	415.4	417.6	374.7
82.5°	372.5	320.6	415.4	383.8	338.6
85°	316.0	243.8	469.5	334.1	250.6
87.5°	200.9	144.5	318.3	228.0	151.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)