

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: P159401

Luminaire Tested: **VST-E12-LED-E-U-T2-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159401
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-E12-LED-E-U-T2-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 AREA
Light Source: (252) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38007.5 lumens
Efficiency: N/A
Efficacy: 130.3 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G4

Input Watts (W): 291.7
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



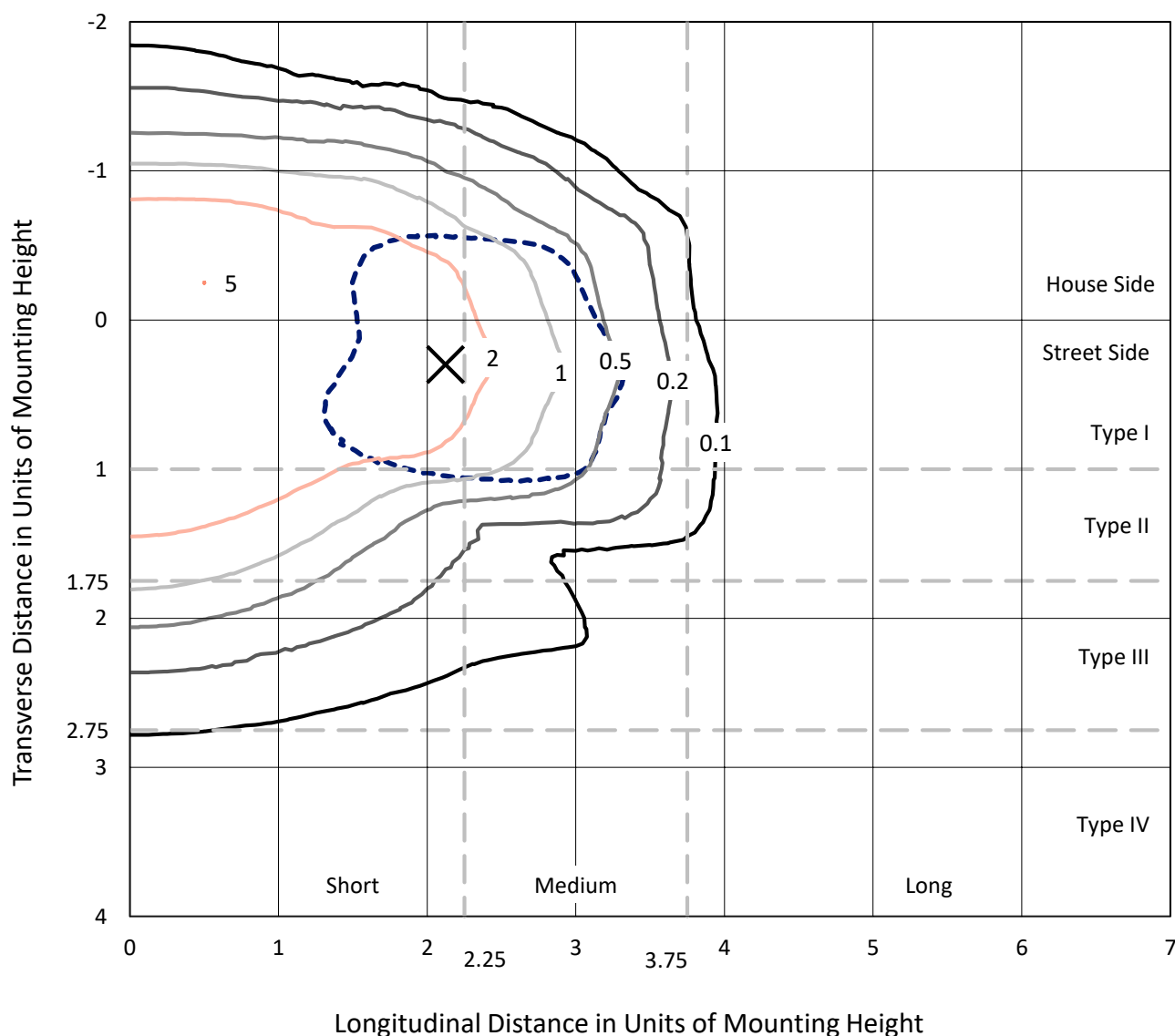
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

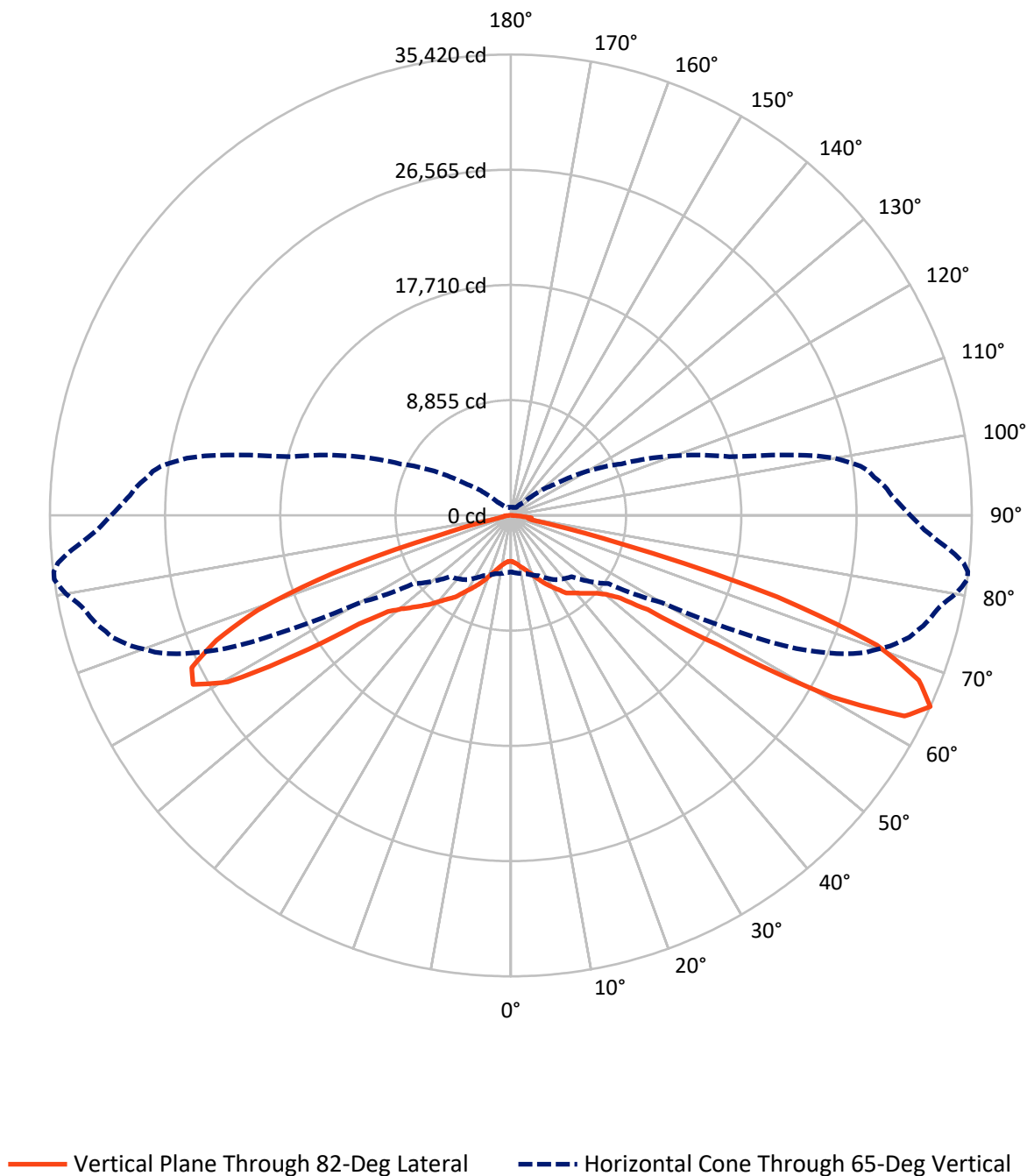


Based on 30 foot mounting height. Maximum calculated value = 5 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14151.4	0.0	14151.4
	% Fixture	37.2	0.0	37.2
Street Side	Lumens	23856.1	0.0	23856.1
	% Fixture	62.8	0.0	62.8
Total	Lumens	38007.5	0.0	38007.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	358.0	0.9
10°-20°	1258.0	3.3
20°-30°	2492.6	6.6
30°-40°	4272.8	11.2
40°-50°	6418.8	16.9
50°-60°	8917.8	23.5
60°-70°	10173.9	26.8
70°-80°	3504.8	9.2
80°-90°	610.9	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°	38007.5	100.0
0°-180°	38007.5	100.0

Coefficient of Utilization



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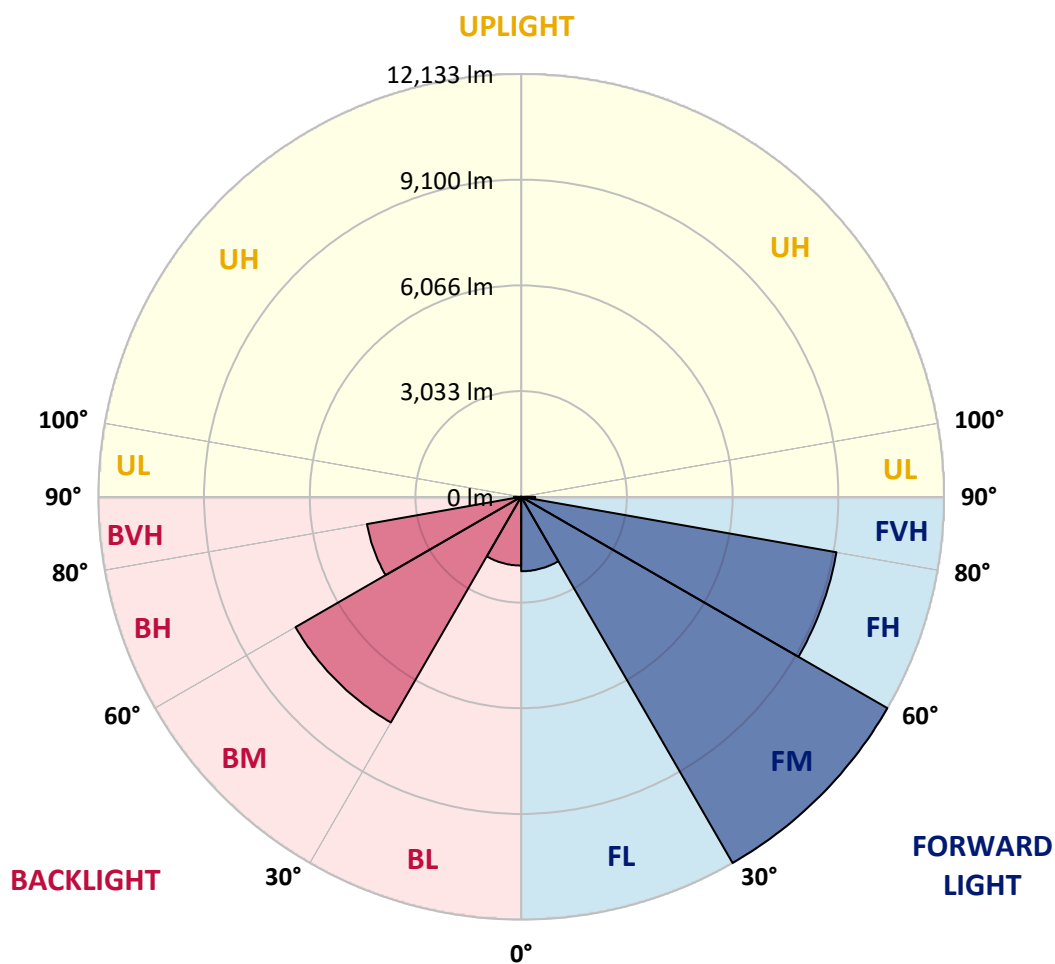
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2135.2	5.6			
FM	(30°-60°)	12132.8	31.9			
FH	(60°-80°)	9186.0	24.2			G4/12000
FVH	(80°-90°)	402.1	1.1			G3/500
BL	(0°-30°)	1973.3	5.2	B3/2500		
BM	(30°-60°)	7476.7	19.7	B4/8500		
BH	(60°-80°)	4492.7	11.8	B4/5000		G4/5000
BVH	(80°-90°)	208.7	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°	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4
2.5°	3728.5	3730.9	3728.5	3721.1	3718.6	3696.4	3671.8	3659.5	3657.0	3647.2	3649.7
5°	3959.9	3952.6	3942.7	3930.4	3918.1	3881.1	3839.3	3817.1	3809.7	3802.3	3792.5
7.5°	4166.8	4171.7	4166.8	4149.6	4117.6	4070.8	4016.6	3982.1	3979.6	3972.3	3964.9
10°	4432.8	4445.1	4415.5	4386.0	4341.7	4270.2	4208.7	4164.3	4157.0	4147.1	4142.2
12.5°	4720.9	4723.4	4713.5	4647.0	4573.1	4474.6	4386.0	4341.7	4331.8	4319.5	4314.6
15°	5028.7	5031.2	4977.0	4913.0	4799.7	4681.5	4558.4	4509.1	4496.8	4499.3	4479.6
17.5°	5272.5	5277.5	5225.7	5144.5	5009.0	4868.7	4735.7	4696.3	4688.9	4691.4	4681.5
20°	5378.4	5385.8	5353.8	5292.2	5164.2	5041.1	4945.0	4920.4	4917.9	4913.0	4932.7
22.5°	5373.5	5376.0	5363.7	5339.0	5262.7	5191.3	5179.0	5193.7	5191.3	5196.2	5213.4
25°	5329.2	5336.6	5334.1	5344.0	5331.6	5358.7	5415.4	5467.1	5474.5	5484.3	5516.3
27.5°	5442.5	5457.2	5440.0	5449.9	5469.6	5560.7	5676.4	5755.2	5770.0	5797.1	5824.2
30°	5885.7	5866.0	5843.9	5819.2	5831.6	5888.2	6018.7	6087.7	6095.1	6114.8	6151.7
32.5°	6543.3	6521.1	6501.4	6462.0	6452.2	6427.5	6471.9	6489.1	6486.6	6506.3	6516.2
35°	7284.5	7287.0	7282.1	7311.6	7336.2	7210.6	7055.5	7013.6	7030.9	7008.7	7013.6
37.5°	7917.4	7924.8	8055.3	8217.9	8264.7	8185.9	7846.0	7678.6	7621.9	7614.5	7557.9
40°	8619.3	8619.3	8816.3	9015.8	9146.3	9244.8	8840.9	8545.4	8424.7	8390.3	8249.9
42.5°	9390.1	9350.7	9530.5	9749.6	9991.0	10215.1	10005.8	9673.3	9500.9	9439.3	9193.1
45°	10023.0	9998.4	10087.0	10291.4	10683.0	11121.3	11150.9	10981.0	10877.5	10749.5	10522.9
47.5°	10412.1	10399.8	10451.5	10673.1	11163.2	11872.5	12268.9	12355.1	12293.6	12195.1	11975.9
50°	10564.8	10547.5	10584.5	10830.7	11379.9	12315.7	13192.4	13598.8	13628.3	13650.5	13581.5
52.5°	10510.6	10488.4	10564.8	10771.6	11343.0	12470.9	13914.0	14694.7	14825.2	14936.0	15162.6
55°	9991.0	9956.5	10163.4	10552.5	11182.9	12414.2	14441.0	15748.7	16024.5	16320.0	16822.4
57.5°	9195.5	9166.0	9464.0	9998.4	10899.7	12259.1	14795.6	17081.0	17701.6	18233.5	19659.4
60°	8429.7	8405.0	8579.9	9097.0	9981.1	11503.1	14357.3	17529.2	18570.9	19718.5	22321.5
62.5°	7060.4	6993.9	7227.9	7663.8	8222.8	9515.7	12443.8	16531.8	18137.4	19824.4	23353.3
65°	4339.2	4435.2	4637.2	5119.9	6036.0	6651.6	9138.9	13374.7	15492.6	17608.0	22186.0
67.5°	2755.7	2782.8	2933.0	3267.9	3977.2	4595.3	5538.5	8392.7	10025.5	12106.4	17418.3
70°	2361.7	2378.9	2507.0	2856.7	3346.7	4107.7	4191.4	4383.5	4969.6	6294.5	10239.7
72.5°	1861.8	1891.3	1992.3	2295.2	2886.2	3703.8	5174.0	3465.0	3346.7	3457.6	4996.7
75°	1108.2	1142.7	1226.4	1391.4	1854.4	2832.1	5420.3	4031.4	3758.0	3543.8	3447.7
77.5°	586.1	561.5	618.1	714.2	953.0	1509.6	4073.2	4940.1	4748.0	4491.9	3947.6
80°	290.6	300.4	317.7	337.4	426.0	613.2	2036.6	5110.0	5664.1	5910.4	5427.7
82.5°	115.7	130.5	184.7	197.0	234.0	261.0	655.1	2832.1	4056.0	5501.6	7183.6
85°	59.1	56.6	98.5	118.2	137.9	123.1	231.5	1056.5	1901.2	2962.6	4799.7
87.5°	7.4	9.9	22.2	29.6	41.9	39.4	66.5	229.0	364.5	517.2	726.5
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: VST-E12-LED-E-U-T2-7050

CANDELA DISTRIBUTION (continued):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4
2.5°	3637.3	3634.9	3634.9	3625.0	3625.0	3627.5	3620.1	3615.2	3615.2	3617.6	3607.8
5°	3785.1	3777.7	3777.7	3767.9	3755.5	3755.5	3745.7	3743.2	3738.3	3728.5	3721.1
7.5°	3957.5	3950.1	3937.8	3930.4	3925.5	3918.1	3905.8	3900.8	3891.0	3881.1	3871.3
10°	4134.8	4124.9	4120.0	4107.7	4102.8	4088.0	4080.6	4083.1	4063.4	4056.0	4058.5
12.5°	4312.1	4302.3	4285.0	4280.1	4277.6	4262.9	4255.5	4250.5	4235.8	4233.3	4225.9
15°	4469.7	4474.6	4467.3	4454.9	4445.1	4442.6	4435.2	4430.3	4420.5	4410.6	4400.8
17.5°	4674.1	4681.5	4671.7	4654.4	4654.4	4652.0	4654.4	4652.0	4634.7	4642.1	4637.2
20°	4935.2	4940.1	4915.5	4922.8	4927.8	4925.3	4932.7	4940.1	4935.2	4935.2	4942.5
22.5°	5235.6	5243.0	5228.2	5238.1	5252.8	5240.5	5262.7	5260.2	5265.2	5272.5	5275.0
25°	5543.4	5558.2	5545.9	5573.0	5563.1	5573.0	5600.1	5592.7	5605.0	5624.7	5632.1
27.5°	5851.3	5861.1	5863.6	5880.8	5898.1	5912.8	5947.3	5947.3	5957.2	5991.6	5991.6
30°	6173.9	6183.7	6193.6	6218.2	6228.0	6255.1	6289.6	6299.5	6294.5	6343.8	6358.6
32.5°	6545.7	6555.6	6572.8	6602.4	6614.7	6641.8	6641.8	6668.9	6688.6	6730.4	6732.9
35°	7040.7	7048.1	7040.7	7038.3	7055.5	7092.4	7094.9	7134.3	7151.5	7193.4	7205.7
37.5°	7535.7	7533.3	7501.2	7466.8	7469.2	7454.5	7444.6	7461.8	7469.2	7471.7	7498.8
40°	8203.1	8139.1	8089.8	8003.6	7964.2	7902.7	7865.7	7863.3	7823.8	7818.9	7826.3
42.5°	9077.3	9003.5	8887.7	8742.4	8631.6	8518.3	8434.6	8385.3	8299.1	8254.8	8217.9
45°	10298.8	10116.6	9978.7	9806.3	9592.0	9395.0	9188.2	9094.6	8929.6	8828.6	8715.3
47.5°	11791.2	11611.4	11399.6	11222.3	10941.6	10668.2	10385.0	10136.3	9848.1	9619.1	9432.0
50°	13411.6	13305.7	13153.0	12988.0	12626.0	12446.2	12089.2	11751.8	11441.5	11032.7	10675.6
52.5°	15073.9	15135.5	15101.0	15041.9	14812.9	14743.9	14436.1	14024.8	13712.1	13431.3	12810.7
55°	17122.8	17196.7	17344.5	17430.7	17403.6	17578.4	17502.1	17181.9	17056.3	16925.8	16485.0
57.5°	20257.8	20784.8	21348.7	21843.7	21959.5	22580.1	22447.1	22767.2	22993.8	22831.3	22688.4
60°	23599.6	24663.5	25621.4	26623.7	27438.9	28049.6	28857.4	29401.6	29743.9	30359.6	30408.8
62.5°	24946.7	26392.3	27608.8	28771.2	29739.0	30586.2	31315.1	32066.2	32681.9	33238.4	33639.8
65°	24207.9	25717.5	27192.6	28372.2	29303.1	30032.1	30825.0	31421.0	32026.8	32383.9	32805.0
67.5°	20124.8	22124.5	23939.5	25269.3	26542.5	27283.7	28222.0	28808.1	29450.9	29827.7	30098.5
70°	13121.0	15724.0	18203.9	20220.8	21939.8	22804.2	23937.0	24737.4	25510.6	25530.3	25981.0
72.5°	7080.1	9257.1	11333.1	13394.4	15354.6	16504.7	17622.7	18595.5	19363.8	19036.3	19484.5
75°	3942.7	4962.2	6097.5	7336.2	8530.6	9188.2	10023.0	10027.9	10424.4	9801.4	9959.0
77.5°	3792.5	3745.7	3762.9	3797.4	3856.5	3730.9	3728.5	3652.1	3533.9	3319.7	3356.6
80°	4981.9	4386.0	3957.5	3285.2	2644.9	2157.3	2021.8	2053.9	2149.9	2342.0	2585.8
82.5°	7203.3	6700.9	5981.8	4922.8	3863.9	2979.8	2447.9	2172.1	2159.7	2351.8	2721.2
85°	5245.5	5548.4	5501.6	4592.8	3787.6	3075.9	2238.6	1891.3	1566.2	1489.9	1620.4
87.5°	773.3	640.3	721.6	603.4	438.4	339.8	298.0	238.9	229.0	234.0	256.1
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°	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4
2.5°	3610.2	3600.4	3590.5	3597.9	3590.5	3588.1	3580.7	3575.8	3573.3	3573.3	3573.3
5°	3721.1	3708.8	3701.4	3698.9	3691.5	3684.1	3681.7	3669.4	3666.9	3666.9	3659.5
7.5°	3871.3	3861.4	3849.1	3841.7	3836.8	3824.5	3812.2	3809.7	3807.3	3797.4	3790.0
10°	4046.1	4031.4	4016.6	4016.6	4006.7	4004.3	3992.0	3974.7	3972.3	3957.5	3952.6
12.5°	4211.1	4206.2	4189.0	4184.0	4176.7	4169.3	4161.9	4154.5	4147.1	4134.8	4139.7
15°	4408.1	4395.8	4381.1	4383.5	4381.1	4371.2	4361.4	4354.0	4349.0	4344.1	4344.1
17.5°	4644.6	4639.6	4637.2	4624.9	4615.0	4622.4	4622.4	4622.4	4610.1	4612.5	4615.0
20°	4945.0	4949.9	4945.0	4935.2	4932.7	4940.1	4922.8	4949.9	4935.2	4925.3	4930.2
22.5°	5277.5	5294.7	5275.0	5277.5	5289.8	5294.7	5277.5	5299.6	5292.2	5277.5	5289.8
25°	5639.5	5651.8	5641.9	5639.5	5646.9	5664.1	5661.6	5659.2	5676.4	5661.6	5669.0
27.5°	6011.3	6018.7	6023.6	6031.0	6036.0	6033.5	6043.4	6043.4	6053.2	6036.0	6043.4
30°	6380.7	6380.7	6390.6	6400.4	6400.4	6400.4	6420.1	6422.6	6407.8	6412.7	6395.5
32.5°	6774.8	6777.2	6787.1	6787.1	6806.8	6809.2	6831.4	6801.8	6831.4	6806.8	6811.7
35°	7237.7	7269.8	7274.7	7299.3	7319.0	7326.4	7326.4	7328.9	7355.9	7336.2	7343.6
37.5°	7508.6	7516.0	7535.7	7548.0	7548.0	7557.9	7565.3	7557.9	7565.3	7562.8	7570.2
40°	7828.8	7821.4	7843.6	7848.5	7838.6	7850.9	7848.5	7841.1	7860.8	7846.0	7855.9
42.5°	8217.9	8176.0	8173.5	8193.2	8173.5	8183.4	8180.9	8163.7	8188.3	8195.7	8188.3
45°	8634.1	8611.9	8567.6	8567.6	8547.9	8540.5	8542.9	8540.5	8542.9	8572.5	8582.3
47.5°	9311.3	9175.8	9099.5	9028.1	8969.0	8966.5	8939.4	8954.2	8973.9	9023.2	9067.5
50°	10446.6	10133.8	9941.7	9764.4	9636.4	9592.0	9540.3	9535.4	9552.6	9609.3	9685.6
52.5°	12470.9	12037.4	11628.6	11249.4	10919.4	10665.8	10540.2	10473.7	10449.0	10505.7	10579.6
55°	16174.7	15357.1	14780.8	14396.7	13576.6	13229.4	12783.6	12579.2	12379.8	12399.5	12525.1
57.5°	22503.7	22062.9	21580.2	20907.9	20405.5	19799.7	18686.6	18066.0	18093.1	18238.4	17785.3
60°	30797.9	30352.2	30152.7	29542.0	29192.3	28948.5	28357.4	27328.1	26963.6	26894.6	26062.3
62.5°	33947.7	34053.6	34211.2	34383.6	34373.7	34479.6	33962.4	33627.5	33206.4	32659.7	31837.2
65°	33125.1	33393.6	33713.7	34176.7	34703.7	35092.8	35420.3	35380.9	34986.9	34258.0	33388.7
67.5°	30339.9	30605.9	30839.8	31460.4	32324.8	33115.3	33814.7	34290.0	34026.5	33423.1	32408.5
70°	26153.4	26345.5	26493.2	27032.5	27980.7	28946.0	29859.7	30657.6	30576.3	29844.9	29034.7
72.5°	18950.1	19415.6	19666.7	19629.8	20215.9	21297.0	21425.1	22107.2	22296.9	21508.8	20218.4
75°	9232.5	9239.9	8949.3	8853.2	8882.8	9070.0	8712.9	8735.0	8611.9	8052.9	7592.4
77.5°	3226.1	3137.4	2925.6	2674.4	2314.9	1977.5	1635.2	1487.4	1438.2	1292.9	1191.9
80°	2780.3	2910.9	2869.0	2662.1	2282.9	1819.9	1359.4	1007.2	859.5	807.8	758.5
82.5°	3157.1	3659.5	3979.6	3962.4	3442.8	2585.8	1613.0	926.0	660.0	578.7	531.9
85°	1760.8	1893.8	1930.7	1758.3	1460.4	997.4	556.6	391.6	332.5	302.9	273.4
87.5°	280.7	256.1	251.2	219.2	206.9	189.6	167.5	157.6	145.3	137.9	137.9
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: P159401

CATALOG NUMBER: VST-E12-LED-E-U-T2-7050

CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	91°	92°	93°	94°	95°	96°	97°
0°	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4
2.5°	3570.8	3568.4	3561.0	3553.6	3548.7	3546.2	3543.8	3538.8	3536.4	3533.9	3529.0
5°	3654.6	3649.7	3637.3	3625.0	3620.1	3612.7	3605.3	3600.4	3595.5	3593.0	3583.2
7.5°	3785.1	3780.2	3765.4	3755.5	3753.1	3733.4	3730.9	3723.5	3711.2	3708.8	3694.0
10°	3942.7	3940.2	3927.9	3920.5	3915.6	3905.8	3891.0	3878.7	3866.4	3866.4	3856.5
12.5°	4124.9	4115.1	4122.5	4105.2	4100.3	4090.5	4083.1	4080.6	4065.8	4053.5	4051.1
15°	4339.2	4326.9	4326.9	4322.0	4317.0	4307.2	4304.7	4307.2	4292.4	4297.3	4282.6
17.5°	4605.2	4610.1	4607.6	4607.6	4595.3	4595.3	4575.6	4600.2	4583.0	4595.3	4590.4
20°	4937.6	4940.1	4935.2	4942.5	4947.5	4945.0	4942.5	4940.1	4947.5	4957.3	4949.9
22.5°	5292.2	5292.2	5289.8	5316.9	5287.3	5309.5	5316.9	5302.1	5341.5	5336.6	5344.0
25°	5676.4	5676.4	5696.1	5718.3	5723.2	5706.0	5715.8	5703.5	5728.1	5747.8	5752.8
27.5°	6033.5	6065.5	6080.3	6065.5	6077.8	6104.9	6102.5	6102.5	6119.7	6114.8	6161.6
30°	6400.4	6420.1	6439.8	6430.0	6434.9	6469.4	6471.9	6474.3	6496.5	6528.5	6563.0
32.5°	6819.1	6838.8	6828.9	6861.0	6858.5	6900.4	6907.7	6915.1	6984.1	6971.8	7043.2
35°	7333.8	7353.5	7343.6	7378.1	7373.2	7388.0	7415.0	7444.6	7456.9	7528.3	7585.0
37.5°	7575.1	7575.1	7597.3	7636.7	7651.5	7676.1	7718.0	7754.9	7816.5	7892.8	7981.5
40°	7865.7	7873.1	7902.7	7944.5	7971.6	8028.2	8104.6	8156.3	8249.9	8333.6	8437.0
42.5°	8217.9	8249.9	8284.4	8341.0	8400.1	8488.8	8597.1	8663.6	8786.7	8895.1	9023.2
45°	8629.1	8661.2	8742.4	8845.8	8932.0	9030.5	9119.2	9276.8	9387.6	9500.9	9611.7
47.5°	9126.6	9220.2	9286.7	9409.8	9515.7	9646.2	9757.0	9904.8	10025.5	10163.4	10256.9
50°	9764.4	9880.2	9966.4	10126.4	10229.9	10375.2	10515.5	10626.3	10749.5	10884.9	10961.3
52.5°	10680.5	10798.7	10907.1	11106.6	11234.6	11333.1	11520.3	11658.2	11771.5	11870.0	11953.7
55°	12665.4	12630.9	12931.4	13318.0	13362.4	13719.4	13785.9	13901.7	14111.0	14140.6	14374.5
57.5°	18336.9	18159.6	18595.5	19161.9	19063.4	18883.6	19634.7	19681.5	19575.6	19858.8	19538.7
60°	26185.4	25875.1	25993.3	26148.5	25924.3	25818.5	25855.4	25961.3	25857.9	25744.6	25434.3
62.5°	31425.9	30948.2	30605.9	30317.7	29953.2	29689.7	29394.2	29029.8	28931.2	28517.5	28170.3
65°	32544.0	31800.2	31258.5	30714.2	30211.8	29746.4	29300.6	28987.9	28574.2	28084.1	27722.1
67.5°	31315.1	30394.1	29601.1	28810.6	28241.7	27557.1	27222.2	26712.4	26202.6	25641.1	25308.7
70°	27744.2	26783.8	25786.4	25013.2	24239.9	23392.7	23227.7	22624.4	22331.3	21565.5	21432.5
72.5°	19149.6	18509.3	18063.6	17108.1	16637.7	16204.3	16066.3	15507.3	15566.4	14726.7	15032.0
75°	6809.2	6718.1	6587.6	6048.3	5952.2	5784.8	5740.4	5701.0	6100.0	5545.9	5947.3
77.5°	1169.8	1162.4	1095.9	1063.9	1125.4	1086.0	1095.9	1076.2	1191.9	1209.2	1182.1
80°	726.5	706.8	684.6	669.8	672.3	657.5	660.0	664.9	672.3	669.8	677.2
82.5°	497.5	480.2	470.4	460.5	475.3	480.2	492.5	504.8	524.5	536.9	551.6
85°	270.9	248.7	248.7	246.3	266.0	280.7	300.4	325.1	359.5	389.1	421.1
87.5°	137.9	133.0	135.4	140.4	157.6	169.9	194.5	216.7	246.3	278.3	307.8
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: P159401

CATALOG NUMBER: VST-E12-LED-E-U-T2-7050

CANDELA DISTRIBUTION (continued):

	98°	99°	100°	101°	102°	103°	104°	105°	115°	125°	135°
0°	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4	3536.4
2.5°	3526.5	3526.5	3524.1	3524.1	3521.6	3519.1	3516.7	3509.3	3482.2	3457.6	3440.3
5°	3580.7	3573.3	3570.8	3563.5	3561.0	3556.1	3548.7	3541.3	3492.0	3447.7	3415.7
7.5°	3691.5	3681.7	3676.7	3669.4	3662.0	3652.1	3642.3	3634.9	3575.8	3524.1	3484.7
10°	3836.8	3831.9	3829.4	3819.6	3819.6	3804.8	3802.3	3785.1	3721.1	3674.3	3639.8
12.5°	4038.8	4028.9	4026.4	4014.1	4019.0	4014.1	4009.2	3999.3	3952.6	3898.4	3851.6
15°	4289.9	4289.9	4277.6	4267.8	4270.2	4265.3	4275.2	4262.9	4233.3	4184.0	4107.7
17.5°	4592.8	4587.9	4592.8	4585.5	4590.4	4595.3	4583.0	4585.5	4570.7	4509.1	4395.8
20°	4945.0	4937.6	4967.2	4954.9	4981.9	4957.3	4962.2	4969.6	4969.6	4888.4	4735.7
22.5°	5348.9	5344.0	5344.0	5368.6	5378.4	5380.9	5390.7	5398.1	5417.8	5314.4	5070.6
25°	5752.8	5770.0	5772.5	5804.5	5819.2	5819.2	5826.6	5853.7	5912.8	5770.0	5454.8
27.5°	6164.0	6205.9	6215.7	6237.9	6260.1	6282.2	6299.5	6319.2	6415.2	6260.1	5848.8
30°	6575.3	6622.1	6656.6	6681.2	6708.3	6762.4	6772.3	6811.7	6971.8	6782.1	6223.1
32.5°	7058.0	7124.5	7168.8	7200.8	7242.7	7294.4	7323.9	7373.2	7528.3	7218.0	6496.5
35°	7634.2	7673.6	7737.7	7791.8	7816.5	7905.1	7951.9	7964.2	8082.4	7594.8	6698.4
37.5°	8033.2	8099.7	8210.5	8286.8	8331.2	8380.4	8459.2	8510.9	8624.2	7937.1	6799.4
40°	8540.5	8641.4	8730.1	8843.4	8914.8	8951.7	9030.5	9072.4	9087.2	8230.2	6767.4
42.5°	9158.6	9249.7	9367.9	9459.1	9513.2	9555.1	9619.1	9636.4	9444.3	8368.1	6595.0
45°	9739.8	9880.2	9981.1	10047.6	10087.0	10109.2	10148.6	10151.1	9739.8	8299.1	6299.5
47.5°	10365.3	10466.3	10559.9	10606.6	10601.7	10606.6	10591.9	10582.0	9887.6	8060.3	5920.2
50°	11057.3	11123.8	11163.2	11185.4	11197.7	11150.9	11084.4	11040.1	9899.9	7720.4	5536.0
52.5°	11985.7	12069.5	12062.1	12059.6	11961.1	11916.8	11739.5	11648.3	9828.4	7321.5	5102.6
55°	14337.6	14256.3	14096.2	14175.0	13773.6	13564.3	13288.5	13032.4	9922.0	6942.2	4600.2
57.5°	19666.7	19698.8	19243.2	18999.4	18322.1	17475.0	16792.8	16130.4	10764.3	6710.7	3945.2
60°	25227.4	24808.8	24230.0	23348.4	22476.6	21218.2	20004.1	18856.5	11604.0	6469.4	3169.4
62.5°	27655.6	27059.6	26185.4	25045.2	23675.9	22136.8	20624.7	19225.9	11197.7	5688.7	2305.0
65°	27163.1	26251.9	25286.5	23951.8	22287.0	20600.1	18834.4	17406.0	9367.9	4243.2	1421.0
67.5°	24587.1	23813.9	22794.3	21210.8	19430.3	17674.5	16056.5	14455.8	6959.5	2644.9	795.4
70°	20752.8	19996.7	18962.4	17342.0	15564.0	13884.4	12170.4	10865.2	4435.2	1275.7	573.8
72.5°	14396.7	13783.5	13052.1	11897.1	10338.2	8811.4	7651.5	6649.2	2457.7	677.2	524.5
75°	5846.3	5848.8	5715.8	5228.2	4418.0	3809.7	3248.2	2755.7	1026.9	576.3	517.2
77.5°	1324.9	1347.1	1472.7	1396.3	1258.4	1177.1	1054.0	930.9	625.5	593.5	522.1
80°	669.8	672.3	664.9	667.4	660.0	662.5	652.6	645.2	586.1	610.7	522.1
82.5°	559.0	571.3	568.9	568.9	571.3	571.3	571.3	568.9	608.3	642.8	504.8
85°	443.3	467.9	487.6	507.3	529.5	544.2	551.6	559.0	591.0	632.9	458.1
87.5°	334.9	364.5	389.1	408.8	443.3	443.3	467.9	485.1	485.1	495.0	241.3
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: P159401

CATALOG NUMBER: VST-E12-LED-E-U-T2-7050

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	3536.4	3536.4	3536.4	3536.4	3536.4
2.5°	3415.7	3405.8	3396.0	3391.1	3381.2
5°	3391.1	3371.4	3359.1	3359.1	3349.2
7.5°	3462.5	3455.1	3437.9	3428.0	3437.9
10°	3615.2	3602.9	3583.2	3568.4	3575.8
12.5°	3819.6	3770.3	3730.9	3713.7	3701.4
15°	4031.4	3932.9	3854.1	3809.7	3797.4
17.5°	4257.9	4085.5	3967.3	3900.8	3888.5
20°	4489.4	4275.2	4107.7	4021.5	4019.0
22.5°	4767.7	4482.0	4267.8	4154.5	4147.1
25°	5060.8	4666.7	4383.5	4238.2	4223.4
27.5°	5314.4	4814.5	4454.9	4282.6	4267.8
30°	5526.2	4925.3	4514.0	4314.6	4294.9
32.5°	5678.9	4989.3	4538.7	4324.4	4302.3
35°	5728.1	4964.7	4469.7	4235.8	4211.1
37.5°	5661.6	4804.6	4277.6	4019.0	3989.5
40°	5462.2	4523.9	3964.9	3698.9	3662.0
42.5°	5156.8	4179.1	3588.1	3334.4	3287.6
45°	4780.0	3790.0	3213.8	2930.6	2908.4
47.5°	4386.0	3381.2	2792.6	2536.5	2509.4
50°	3959.9	2908.4	2381.4	2103.1	2103.1
52.5°	3452.6	2447.9	1903.6	1694.3	1677.1
55°	2869.0	1928.3	1517.0	1356.9	1334.8
57.5°	2241.0	1482.5	1211.6	1118.0	1093.4
60°	1647.5	1113.1	975.2	923.5	913.6
62.5°	1118.0	847.2	785.6	763.4	761.0
65°	756.0	660.0	642.8	635.4	637.8
67.5°	581.2	549.2	541.8	539.3	539.3
70°	504.8	485.1	477.8	480.2	477.8
72.5°	475.3	448.2	450.7	455.6	453.1
75°	465.4	431.0	440.8	443.3	433.4
77.5°	458.1	411.3	435.9	443.3	416.2
80°	443.3	394.0	453.1	455.6	408.8
82.5°	406.3	349.7	453.1	418.7	369.4
85°	344.8	266.0	512.2	364.5	273.4
87.5°	219.2	157.6	347.2	248.7	165.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)