

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: P159826

Luminaire Tested: **VST-F10-LED-E-U-T4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159826
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-F10-LED-E-U-T4-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(10) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (70) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25212 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Luminous Opening: Rectangular (W 1.67' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

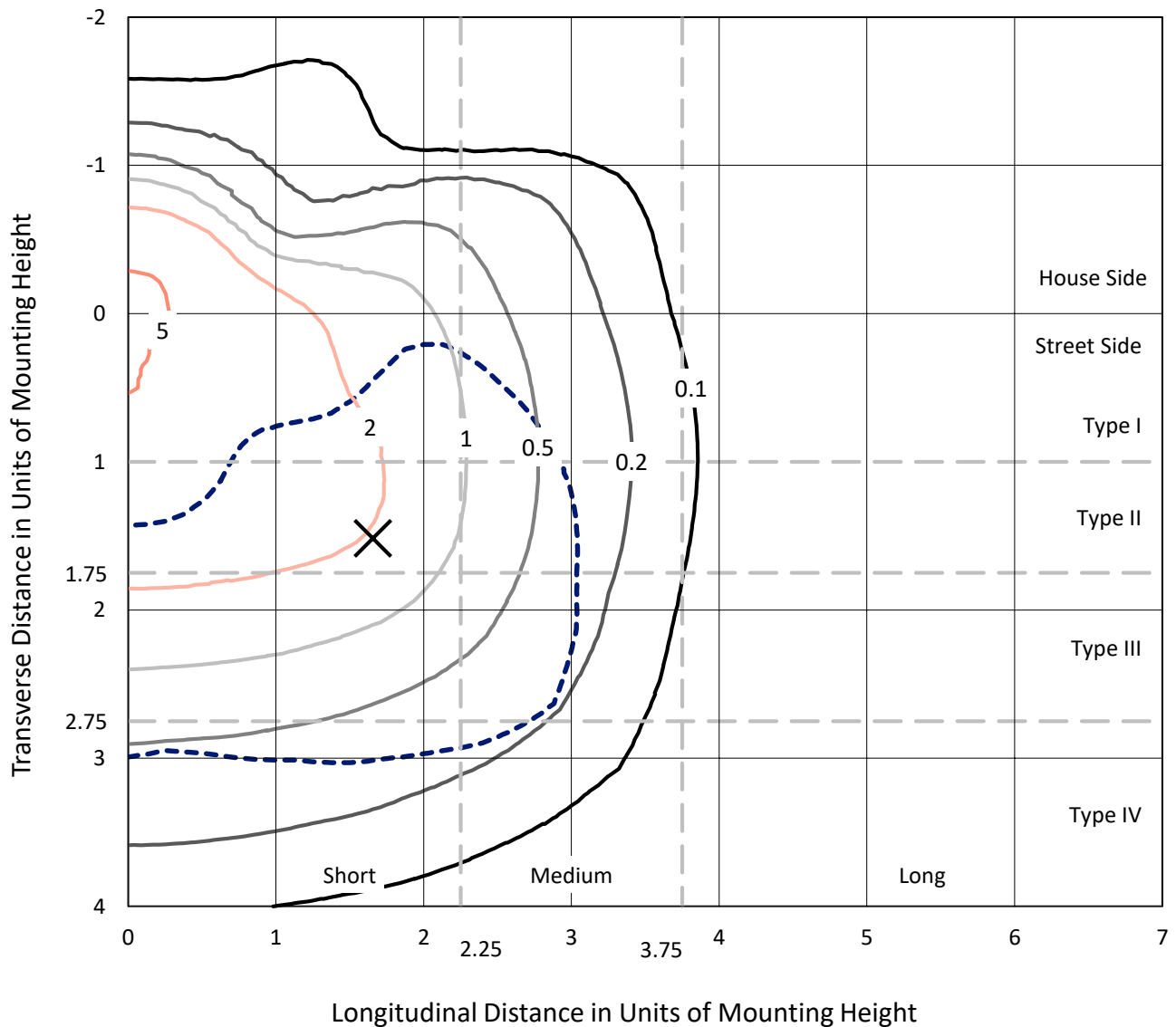
Input Watts (W): 258.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

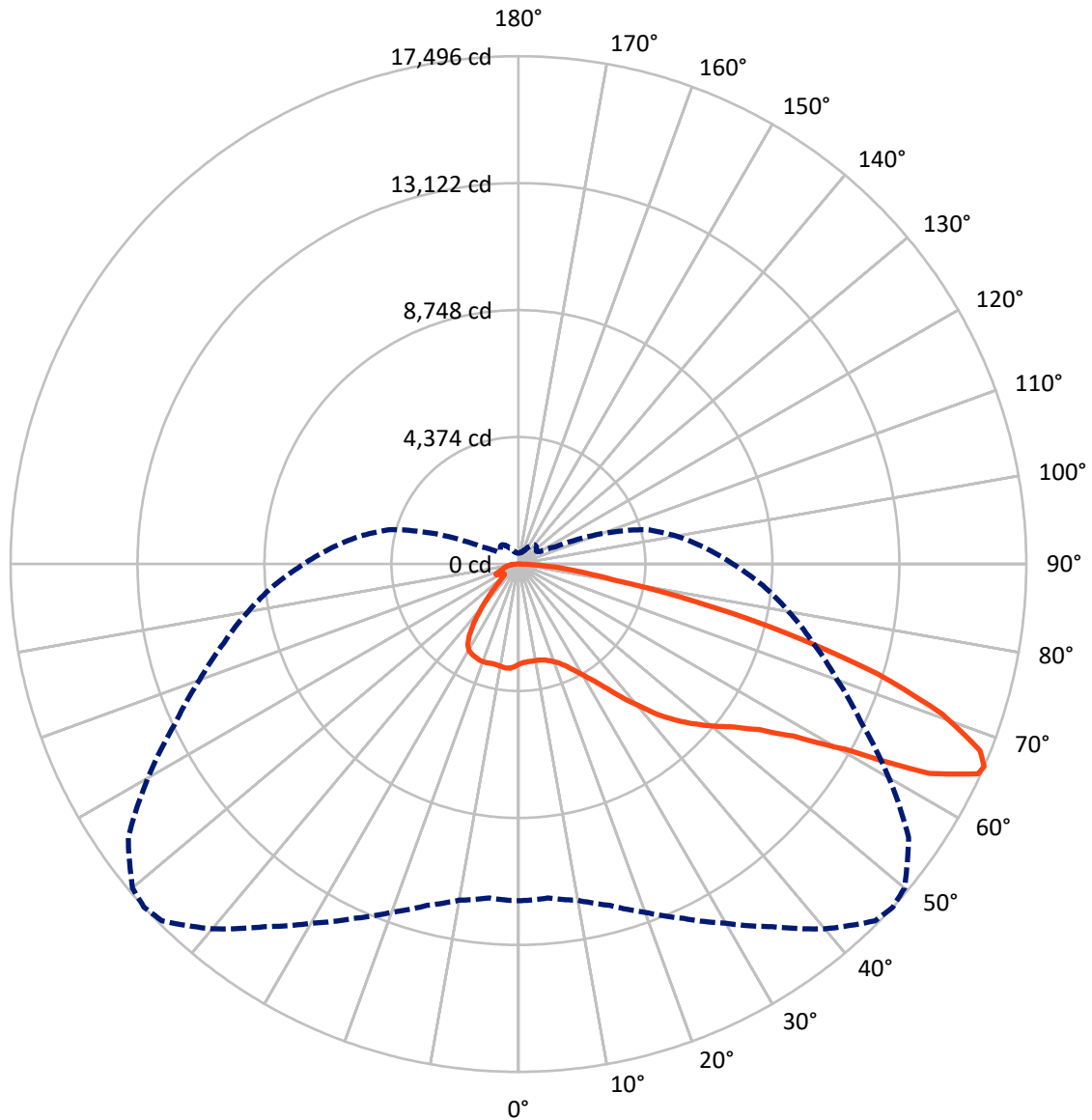


Based on 25 foot mounting height. Maximum calculated value = 5.6 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P159826

CATALOG NUMBER: VST-F10-LED-E-U-T4-7050

Luminous Intensity Polar Plot



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



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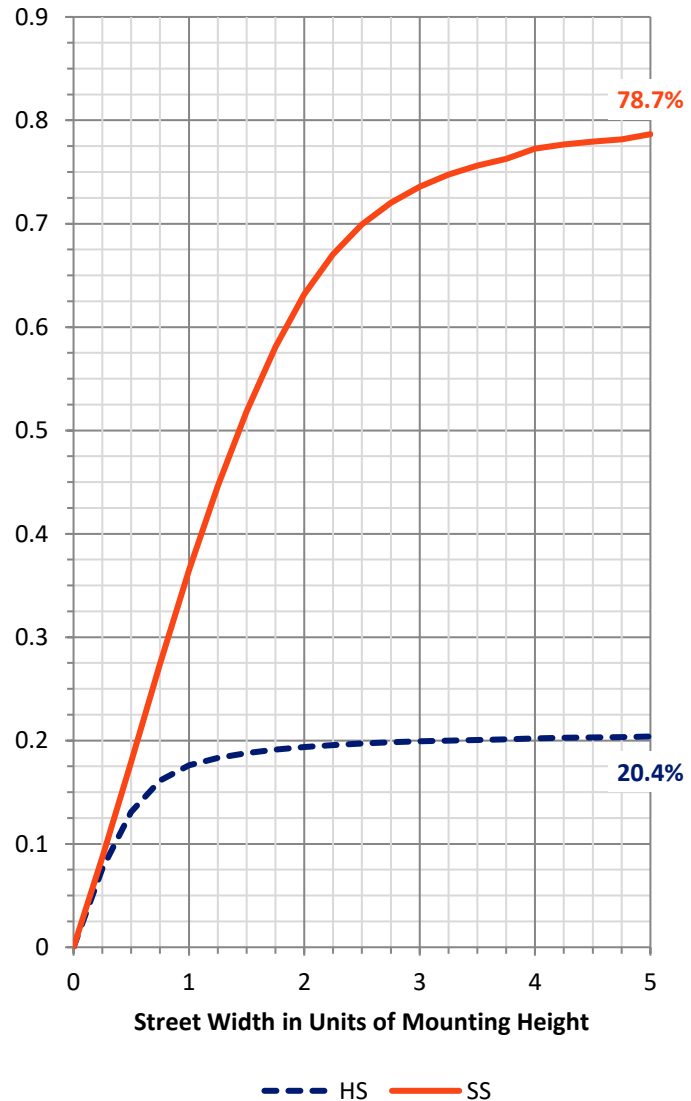
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5220.0	0.0	5220.0
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	19992.0	0.0	19992.0
	% Fixture	79.3	0.0	79.3
Total	Lumens	25212.0	0.0	25212.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	332.5	1.3
10°-20°	997.0	4.0
20°-30°	1701.0	6.7
30°-40°	2567.5	10.2
40°-50°	3337.1	13.2
50°-60°	4578.2	18.2
60°-70°	7042.7	27.9
70°-80°	4071.1	16.1
80°-90°	584.8	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°	25212.0	100.0
0°-180°	25212.0	100.0

Coefficient of Utilization



REPORT NUMBER: P159826

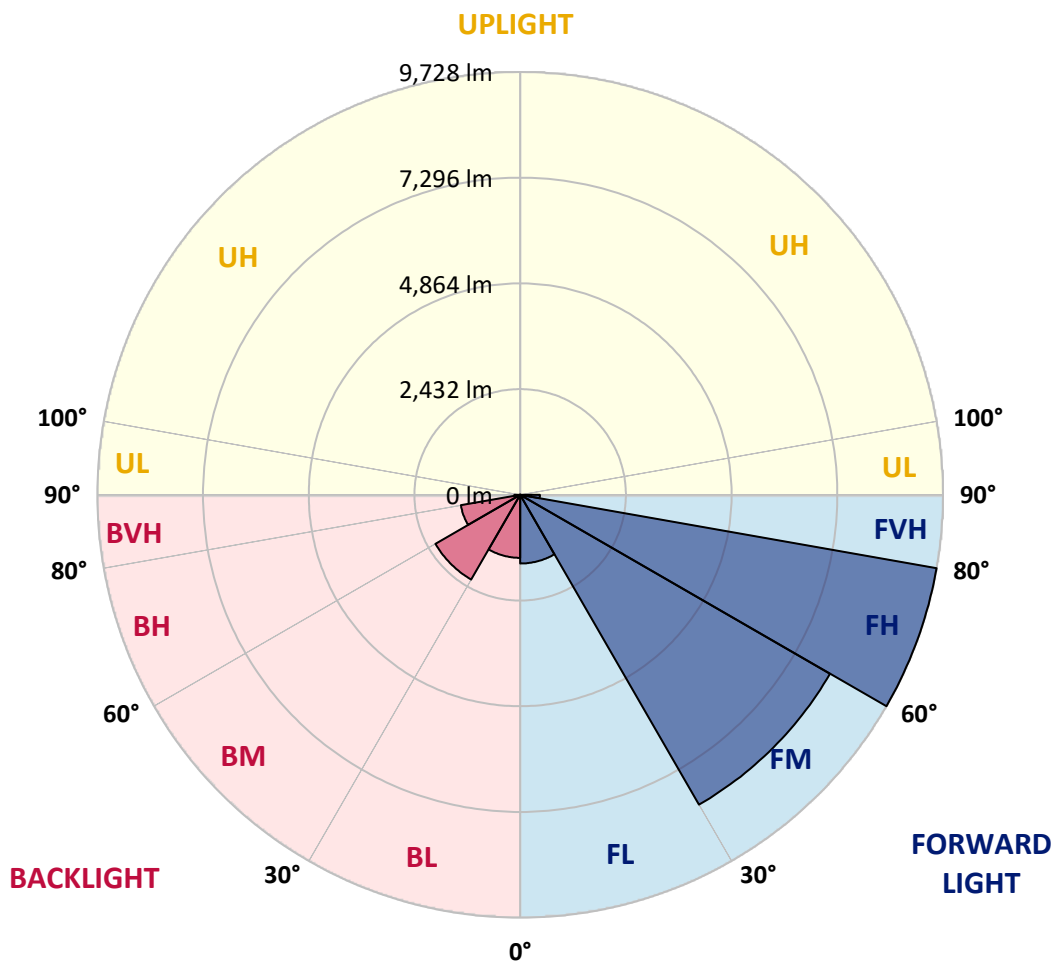
CATALOG NUMBER: VST-F10-LED-E-U-T4-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1580.3	6.3			
FM	(30°-60°)	8230.6	32.6			
FH	(60°-80°)	9728.5	38.6			G4/12000
FVH	(80°-90°)	452.6	1.8			G3/500
BL	(0°-30°)	1450.2	5.8	B3/2500		
BM	(30°-60°)	2252.2	8.9	B2/2500		
BH	(60°-80°)	1385.4	5.5	B3/2500		G3/2500
BVH	(80°-90°)	132.2	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





REPORT NUMBER: P159826

CATALOG NUMBER: VST-F10-LED-E-U-T4-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	3449.3	3449.3	3449.3	3449.3	3449.3	3449.3	3449.3	3449.3	3449.3	3449.3	3449.3
2.5°	3361.2	3362.9	3364.6	3364.6	3369.7	3369.7	3378.1	3383.2	3384.9	3395.1	3401.9
5°	3298.5	3296.8	3298.5	3301.9	3310.4	3317.1	3334.1	3345.9	3356.1	3373.1	3381.5
7.5°	3271.4	3274.8	3278.2	3279.9	3286.7	3303.6	3318.8	3330.7	3351.0	3371.4	3379.8
10°	3307.0	3312.1	3307.0	3310.4	3310.4	3325.6	3332.4	3340.9	3356.1	3374.7	3379.8
12.5°	3390.0	3400.2	3390.0	3381.5	3374.7	3388.3	3384.9	3378.1	3386.6	3391.7	3391.7
15°	3527.2	3527.2	3520.4	3508.6	3491.6	3493.3	3478.1	3462.8	3456.1	3444.2	3435.7
17.5°	3661.1	3657.7	3642.4	3627.2	3615.3	3610.2	3588.2	3567.9	3544.2	3525.5	3505.2
20°	3791.5	3805.1	3786.4	3764.4	3745.8	3733.9	3717.0	3676.3	3647.5	3617.0	3596.7
22.5°	4016.8	4005.0	3984.6	3952.5	3933.8	3913.5	3877.9	3833.9	3789.8	3752.5	3727.1
25°	4248.9	4237.1	4208.3	4184.6	4157.4	4140.5	4101.5	4047.3	4005.0	3947.4	3913.5
27.5°	4498.0	4487.8	4453.9	4435.3	4416.7	4396.3	4362.4	4306.5	4267.6	4201.5	4165.9
30°	4779.2	4777.5	4731.8	4728.4	4701.3	4679.2	4655.5	4608.1	4569.1	4503.1	4460.7
32.5°	5079.1	5072.3	5040.1	5029.9	5048.6	5033.3	4999.4	4950.3	4899.5	4860.5	4813.1
35°	5506.0	5494.1	5475.5	5484.0	5495.8	5538.2	5485.7	5443.3	5382.3	5331.5	5265.4
37.5°	5817.7	5800.8	5822.8	5870.2	5938.0	5970.2	6015.9	6017.6	5988.8	5921.1	5863.5
40°	6104.0	6097.3	6148.1	6214.1	6339.5	6431.0	6517.4	6559.8	6569.9	6525.9	6439.5
42.5°	6346.3	6366.6	6434.4	6536.0	6712.2	6851.1	7012.1	7112.0	7174.7	7151.0	7112.0
45°	6634.3	6644.5	6727.5	6856.2	7024.0	7254.4	7466.1	7635.5	7745.7	7744.0	7699.9
47.5°	6995.2	6996.8	7068.0	7218.8	7398.4	7632.2	7899.8	8125.1	8270.8	8277.6	8243.7
50°	7423.8	7420.4	7498.3	7640.6	7832.1	8057.4	8342.0	8623.2	8826.5	8826.5	8777.4
52.5°	7976.1	7969.3	8011.6	8137.0	8321.7	8558.9	8841.8	9167.1	9387.3	9434.7	9328.0
55°	8713.0	8723.2	8733.3	8843.5	9001.0	9189.1	9514.4	9814.2	10109.0	10136.1	10073.4
57.5°	9565.2	9531.3	9604.1	9783.7	9963.3	10198.8	10429.2	10783.3	11132.3	11191.6	11183.1
60°	10896.8	10852.7	10927.3	11156.0	11354.2	11725.2	12120.0	12577.4	12990.8	13112.7	12965.3
62.5°	12121.7	12175.9	12277.5	12543.5	12831.5	13326.2	13919.1	14703.5	15487.9	15914.9	15884.4
65°	12011.5	11960.7	12155.5	12518.1	13039.9	13670.1	14407.1	15352.4	16482.4	17339.6	17415.9
66°	11603.2	11550.7	11760.8	12175.9	12772.2	13473.6	14291.9	15254.1	16409.5	17378.6	17495.5
67.5°	10929.0	10876.5	11113.6	11491.4	12106.4	12989.1	13873.4	14925.5	16126.6	17055.0	17149.9
70°	9627.9	9556.7	9741.4	10168.3	10666.4	11520.2	12362.2	13477.0	14710.3	15452.4	15487.9
72.5°	8155.6	7989.6	8186.1	8514.8	8870.6	9577.0	10310.6	11073.0	12055.6	12741.7	12938.2
75°	5917.7	6004.1	6061.7	6278.5	6514.0	7098.5	7528.8	8167.5	8928.2	9424.6	9582.1
77.5°	3139.3	3269.7	3351.0	3567.9	3957.5	4403.1	4869.0	5263.7	5763.5	6041.3	6234.5
80°	1761.9	1853.4	1985.5	2156.7	2346.4	2688.6	2964.8	3168.1	3239.2	3288.3	3332.4
82.5°	969.1	1201.2	1397.7	1516.3	1628.1	1765.3	1929.6	2099.1	2153.3	2071.9	2029.6
85°	150.8	221.9	676.0	825.1	897.9	1002.9	1121.5	1246.9	1248.6	1074.1	1172.4
87.5°	42.4	47.4	96.6	145.7	142.3	115.2	142.3	259.2	152.5	76.2	88.1
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: P159826

CATALOG NUMBER: VST-F10-LED-E-U-T4-7050

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	3449.3	3449.3	3449.3	3449.3	3449.3	3449.3	3449.3	3449.3	3449.3	3449.3	3449.3
2.5°	3405.2	3408.6	3417.1	3425.6	3434.0	3442.5	3447.6	3456.1	3462.8	3473.0	3484.9
5°	3391.7	3400.2	3415.4	3434.0	3451.0	3466.2	3478.1	3495.0	3510.3	3523.8	3544.2
7.5°	3391.7	3408.6	3434.0	3454.4	3469.6	3488.3	3506.9	3523.8	3540.8	3554.3	3567.9
10°	3393.4	3410.3	3435.7	3459.5	3476.4	3496.7	3512.0	3527.2	3545.9	3554.3	3571.3
12.5°	3400.2	3406.9	3425.6	3449.3	3469.6	3490.0	3505.2	3520.4	3540.8	3544.2	3556.0
15°	3434.0	3423.9	3429.0	3445.9	3467.9	3484.9	3501.8	3513.7	3527.2	3523.8	3534.0
17.5°	3496.7	3471.3	3461.2	3462.8	3473.0	3484.9	3491.6	3493.3	3495.0	3479.8	3481.5
20°	3581.4	3545.9	3522.1	3510.3	3496.7	3484.9	3466.2	3444.2	3423.9	3393.4	3390.0
22.5°	3708.5	3656.0	3630.6	3598.4	3557.7	3506.9	3461.2	3406.9	3362.9	3317.1	3300.2
25°	3893.2	3838.9	3811.8	3761.0	3688.2	3615.3	3549.2	3476.4	3412.0	3357.8	3332.4
27.5°	4140.5	4086.3	4057.5	4005.0	3915.2	3842.3	3750.9	3672.9	3595.0	3515.4	3483.2
30°	4440.4	4392.9	4360.7	4318.4	4240.5	4160.8	4054.1	3933.8	3810.1	3683.1	3620.4
32.5°	4794.4	4741.9	4718.2	4669.1	4587.8	4504.7	4386.2	4232.0	4025.3	3825.4	3700.0
35°	5236.6	5177.3	5150.2	5085.8	4991.0	4869.0	4741.9	4535.2	4255.7	3977.9	3772.9
37.5°	5827.9	5695.7	5605.9	5458.6	5306.1	5135.0	4953.7	4741.9	4411.6	4067.7	3783.0
40°	6351.4	6217.5	6044.7	5833.0	5595.8	5360.3	5153.6	4913.0	4553.9	4132.0	3750.9
42.5°	7001.9	6764.7	6488.6	6202.3	5887.2	5597.5	5351.8	5068.9	4650.4	4149.0	3661.1
45°	7596.6	7313.7	6944.3	6563.1	6171.8	5807.6	5531.4	5216.3	4733.5	4149.0	3552.6
47.5°	8138.7	7799.9	7357.7	6883.3	6427.6	6029.5	5716.1	5367.1	4850.4	4201.5	3520.4
50°	8640.2	8250.5	7747.4	7196.8	6685.1	6259.9	5922.8	5560.2	5028.2	4337.0	3598.4
52.5°	9168.7	8755.4	8142.1	7557.6	6993.5	6537.7	6178.6	5799.1	5258.6	4550.5	3735.6
55°	9861.7	9377.1	8680.8	8037.1	7417.0	6913.8	6505.5	6085.4	5511.1	4791.1	3903.3
57.5°	10954.4	10251.3	9555.0	8718.1	8133.6	7471.2	7024.0	6541.1	5921.1	5104.5	4155.8
60°	12867.1	12003.1	11166.2	10203.9	9482.2	8789.3	8113.3	7483.1	6735.9	5812.6	4709.7
62.5°	15598.1	14720.5	13405.8	12228.4	11139.0	10220.8	9339.9	8538.5	7579.6	6569.9	5392.5
65°	17229.5	16224.9	14657.8	13075.5	11752.3	10613.9	9605.8	8624.9	7589.8	6605.5	5599.2
66°	17360.0	16409.5	14735.7	13063.6	11689.6	10508.8	9460.1	8445.3	7384.8	6442.9	5531.4
67.5°	17117.7	16299.4	14576.5	12833.2	11428.7	10153.0	9075.6	8011.6	6946.0	6073.5	5306.1
70°	15408.3	14817.0	13339.7	11706.6	10305.5	9180.6	8043.8	7020.6	6010.8	5277.3	4708.0
72.5°	12631.6	11882.8	10849.3	9751.5	8648.6	7650.8	6617.4	5746.6	4899.5	4365.8	3962.6
75°	9278.9	8604.6	7466.1	6781.7	6053.2	5426.4	4730.1	3905.0	3303.6	3035.9	2937.7
77.5°	5882.1	5150.2	4189.6	3434.0	2952.9	2537.8	2000.8	1590.8	1274.0	1326.5	1468.8
80°	2971.5	2559.9	1916.1	1512.9	1307.9	1087.6	860.6	652.2	476.1	543.8	615.0
82.5°	1907.6	1592.5	1268.9	999.5	843.7	743.7	594.6	432.0	321.9	362.5	443.9
85°	1148.6	970.7	774.2	633.6	550.6	459.1	337.1	238.9	237.2	254.1	313.4
87.5°	174.5	249.0	144.0	154.2	162.6	174.5	154.2	130.4	113.5	147.4	186.4
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°	3449.3	3449.3	3449.3	3449.3	3449.3	3449.3	3449.3	3449.3	3449.3	3449.3	3449.3
2.5°	3496.7	3500.1	3506.9	3515.4	3513.7	3525.5	3532.3	3525.5	3540.8	3540.8	3549.2
5°	3561.1	3566.2	3578.0	3586.5	3589.9	3600.1	3603.5	3601.8	3605.2	3606.8	3610.2
7.5°	3579.7	3593.3	3598.4	3603.5	3605.2	3608.5	3608.5	3605.2	3605.2	3603.5	3606.8
10°	3574.7	3579.7	3583.1	3581.4	3581.4	3578.0	3576.4	3574.7	3574.7	3571.3	3576.4
12.5°	3557.7	3557.7	3557.7	3554.3	3554.3	3552.6	3552.6	3552.6	3556.0	3557.7	3566.2
15°	3523.8	3523.8	3527.2	3525.5	3530.6	3539.1	3549.2	3556.0	3564.5	3566.2	3571.3
17.5°	3471.3	3473.0	3483.2	3505.2	3527.2	3552.6	3571.3	3576.4	3569.6	3552.6	3540.8
20°	3379.8	3401.9	3442.5	3495.0	3544.2	3576.4	3584.8	3564.5	3532.3	3488.3	3464.5
22.5°	3298.5	3342.6	3415.4	3501.8	3562.8	3584.8	3559.4	3512.0	3454.4	3403.5	3368.0
25°	3330.7	3381.5	3457.8	3532.3	3571.3	3559.4	3508.6	3440.8	3379.8	3320.5	3262.9
27.5°	3466.2	3517.1	3571.3	3593.3	3579.7	3535.7	3464.5	3391.7	3310.4	3225.7	3154.5
30°	3595.0	3623.8	3627.2	3605.2	3556.0	3484.9	3401.9	3317.1	3213.8	3112.2	3022.4
32.5°	3635.6	3601.8	3540.8	3478.1	3410.3	3337.5	3240.9	3129.1	3019.0	2903.8	2803.8
35°	3623.8	3486.6	3335.8	3201.9	3120.6	3037.6	2949.5	2800.4	2676.8	2578.5	2514.1
37.5°	3517.1	3266.3	3034.2	2839.4	2712.3	2614.1	2483.6	2360.0	2253.2	2209.2	2156.7
40°	3368.0	2985.1	2663.2	2390.4	2258.3	2132.9	1987.2	1892.4	1861.9	1821.2	1822.9
42.5°	3154.5	2656.4	2241.4	1927.9	1783.9	1646.7	1543.4	1487.5	1489.2	1455.3	1462.1
45°	2929.2	2326.1	1804.3	1492.5	1350.2	1233.3	1175.7	1158.8	1160.5	1162.2	1152.0
47.5°	2792.0	2068.6	1446.8	1131.7	1006.3	940.3	909.8	901.3	903.0	904.7	892.8
50°	2771.6	1934.7	1207.9	865.7	784.4	747.1	731.9	723.4	723.4	716.6	706.5
52.5°	2829.2	1900.8	1091.0	750.5	672.6	638.7	626.8	620.1	609.9	596.3	577.7
55°	2920.7	1931.3	1055.5	711.5	635.3	601.4	586.2	582.8	565.8	540.4	509.9
57.5°	3090.1	2041.5	1079.2	721.7	642.1	611.6	601.4	598.0	574.3	535.4	496.4
60°	3576.4	2361.6	1197.8	779.3	691.2	665.8	665.8	660.7	628.5	572.6	516.7
62.5°	4247.2	2830.9	1358.7	858.9	759.0	755.6	784.4	786.1	728.5	638.7	550.6
65°	4570.8	3051.2	1414.6	875.9	777.6	816.6	874.2	874.2	792.9	669.2	555.7
66°	4572.5	3046.1	1397.7	855.5	757.3	808.1	867.4	867.4	782.7	660.7	547.2
67.5°	4455.6	2951.2	1341.8	818.3	711.5	759.0	811.5	809.8	733.6	626.8	523.5
70°	3996.5	2610.7	1182.5	757.3	657.3	659.0	677.7	665.8	615.0	542.1	476.1
72.5°	3445.9	2183.8	1025.0	718.3	615.0	582.8	567.5	557.4	525.2	481.1	440.5
75°	2642.9	1695.8	892.8	682.7	577.7	521.8	501.5	493.0	471.0	445.6	413.4
77.5°	1619.6	1162.2	757.3	625.1	535.4	484.5	462.5	445.6	423.5	399.8	377.8
80°	698.0	701.4	606.5	530.3	465.9	406.6	377.8	357.5	345.6	337.1	325.3
82.5°	487.9	503.2	462.5	411.7	355.8	313.4	288.0	282.9	284.6	284.6	281.2
85°	365.9	359.2	323.6	294.8	269.4	242.3	221.9	220.2	227.0	227.0	221.9
87.5°	211.8	213.5	183.0	171.1	177.9	152.5	138.9	140.6	157.6	155.9	152.5
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: P159826

CATALOG NUMBER: VST-F10-LED-E-U-T4-7050

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	3449.3	3449.3	3449.3	3449.3	3449.3
2.5°	3549.2	3554.3	3552.6	3557.7	3552.6
5°	3615.3	3613.6	3611.9	3618.7	3610.2
7.5°	3605.2	3606.8	3606.8	3606.8	3605.2
10°	3579.7	3586.5	3589.9	3596.7	3595.0
12.5°	3571.3	3581.4	3591.6	3601.8	3603.5
15°	3573.0	3579.7	3584.8	3589.9	3591.6
17.5°	3528.9	3527.2	3522.1	3518.8	3515.4
20°	3439.1	3430.7	3422.2	3408.6	3415.4
22.5°	3327.3	3303.6	3276.5	3254.5	3252.8
25°	3196.9	3152.8	3108.8	3080.0	3069.8
27.5°	3081.7	3029.1	2983.4	2958.0	2951.2
30°	2944.4	2897.0	2856.3	2834.3	2820.8
32.5°	2741.1	2703.9	2653.0	2636.1	2634.4
35°	2458.2	2429.4	2393.8	2387.1	2378.6
37.5°	2138.0	2127.9	2110.9	2090.6	2087.2
40°	1795.8	1802.6	1797.5	1785.6	1767.0
42.5°	1465.4	1477.3	1479.0	1487.5	1495.9
45°	1167.3	1177.4	1177.4	1185.9	1196.1
47.5°	896.2	889.4	894.5	903.0	908.1
50°	677.7	672.6	664.1	657.3	650.6
52.5°	545.5	535.4	511.6	504.9	498.1
55°	481.1	462.5	445.6	438.8	438.8
57.5°	462.5	438.8	420.1	411.7	408.3
60°	465.9	432.0	408.3	394.7	389.7
62.5°	481.1	433.7	401.5	386.3	381.2
65°	479.4	430.3	399.8	382.9	377.8
66°	471.0	425.2	396.4	381.2	377.8
67.5°	457.4	418.5	393.0	379.5	374.4
70°	430.3	404.9	386.3	374.4	369.3
72.5°	408.3	391.3	374.4	360.9	357.5
75°	388.0	371.0	355.8	349.0	343.9
77.5°	357.5	342.2	333.7	327.0	323.6
80°	316.8	306.6	296.5	289.7	284.6
82.5°	276.1	262.6	252.4	247.3	244.0
85°	225.3	216.9	201.6	191.4	189.7
87.5°	150.8	142.3	137.2	128.8	120.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)