

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: P158082

Luminaire Tested: **VST-E12-LED-E-U-RW-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158082
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33711)
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-RW-7060
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (252) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38360.9 lumens
Efficiency: N/A
Efficacy: 131.5 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type I - Medium - Full Cutoff
BUG Rating: B5 - U0 - G5

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

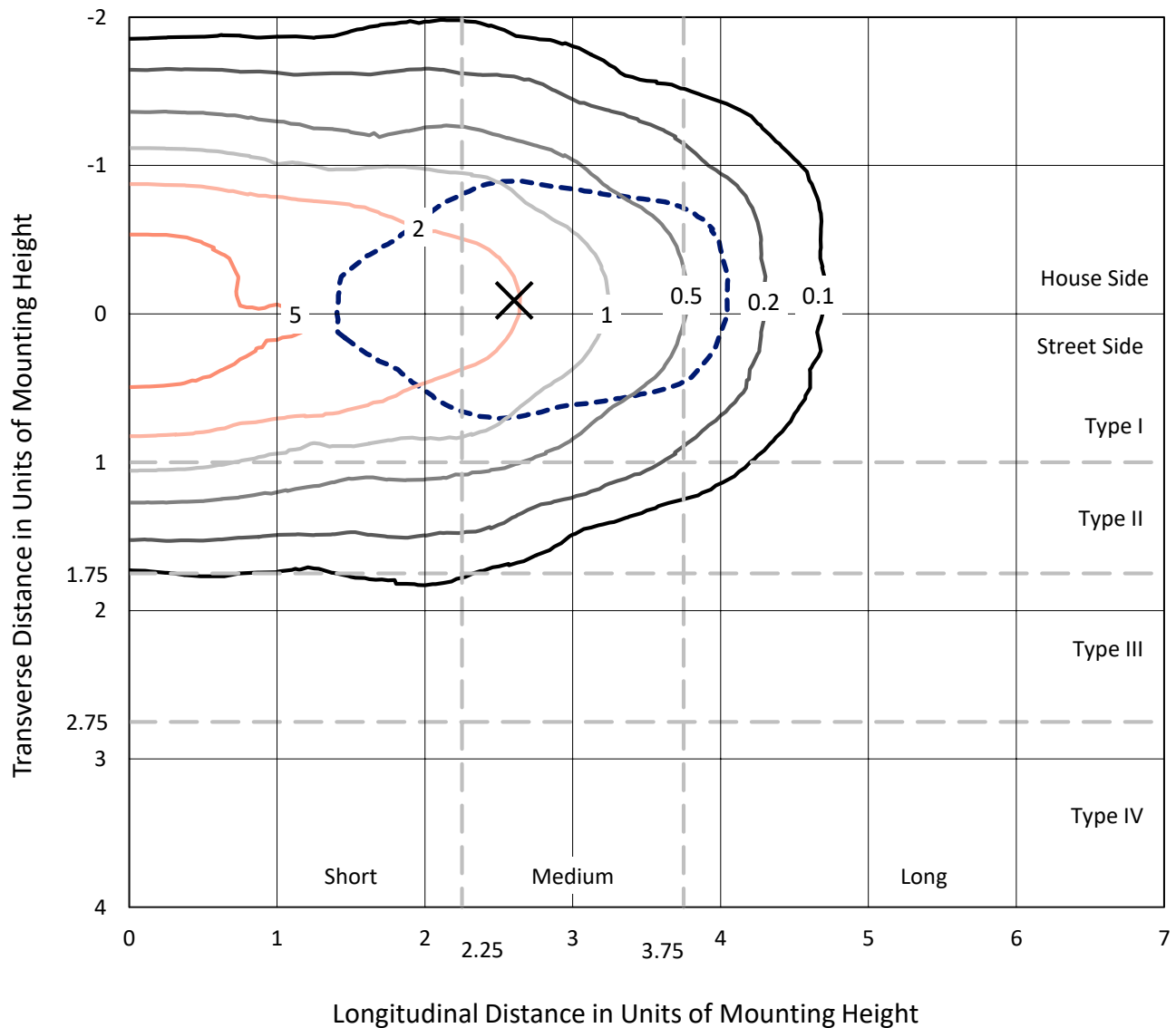


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

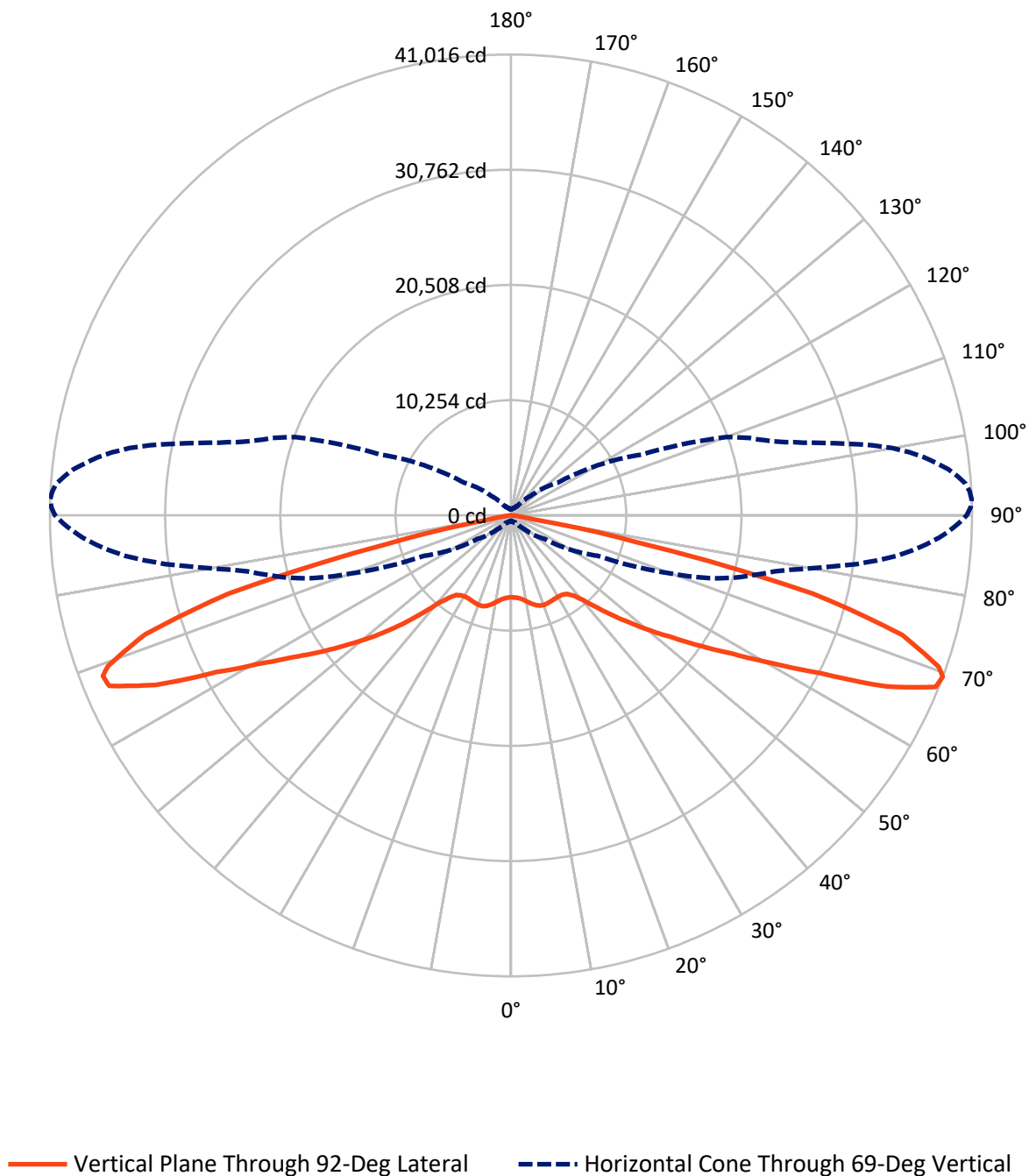


Based on 30 foot mounting height. Maximum calculated value = 8.3 fc
 Type I - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	20344.8	0.0	20344.8
	% Fixture	53.0	0.0	53.0
Street Side	Lumens	18016.1	0.0	18016.1
	% Fixture	47.0	0.0	47.0
Total	Lumens	38360.9	0.0	38360.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	713.0	1.9
10°-20°	2252.5	5.9
20°-30°	3654.5	9.5
30°-40°	4554.5	11.9
40°-50°	5670.7	14.8
50°-60°	6993.5	18.2
60°-70°	8685.4	22.6
70°-80°	5336.7	13.9
80°-90°	500.2	1.3
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°	38360.9	100.0
0°-180°	38360.9	100.0

Coefficient of Utilization



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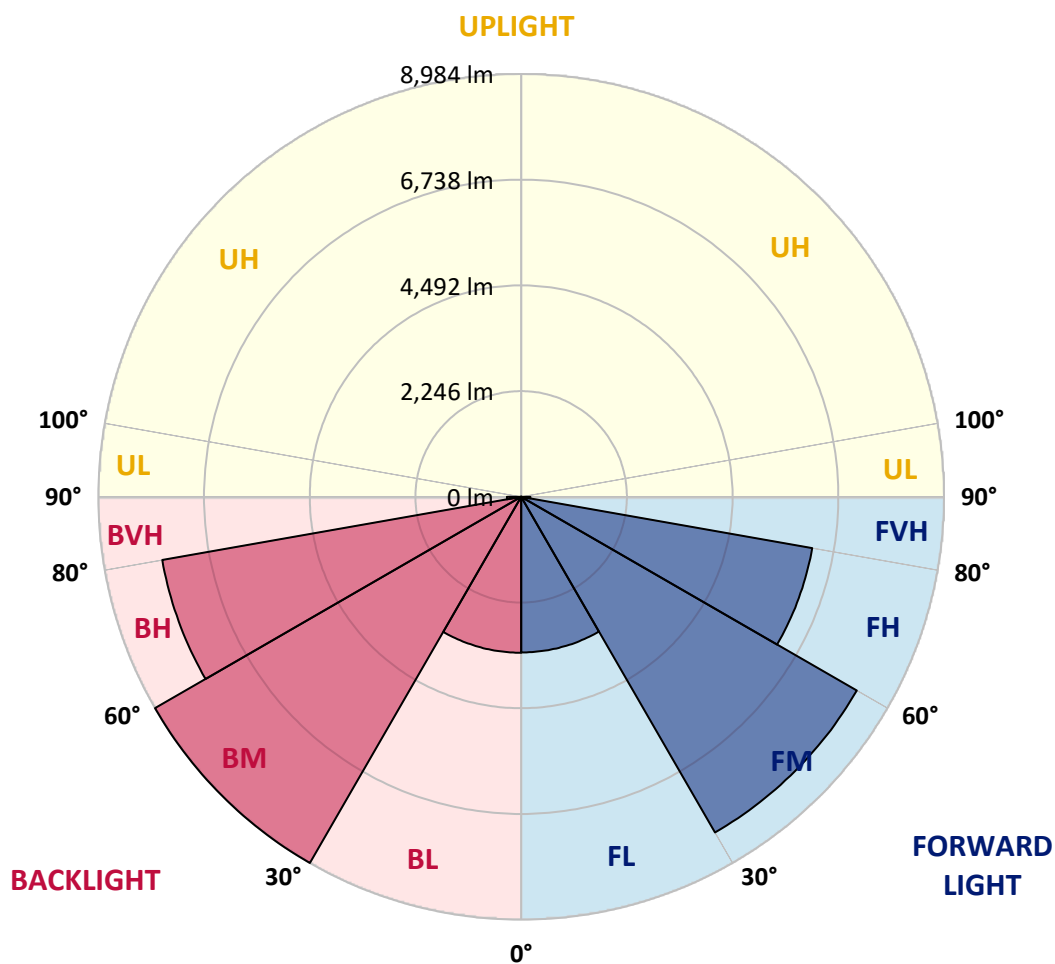
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3306.5	8.6			
FM	(30°-60°)	8234.6	21.5			
FH	(60°-80°)	6279.2	16.4			G3/7500
FVH	(80°-90°)	195.8	0.5			G2/225
BL	(0°-30°)	3313.5	8.6	B4/5000		
BM	(30°-60°)	8984.1	23.4	B5		
BH	(60°-80°)	7742.9	20.2	B5		G5
BVH	(80°-90°)	304.3	0.8			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5

Type I Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	71°	72°
0°	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0
2.5°	7402.7	7383.0	7400.3	7402.7	7400.3	7400.3	7378.1	7373.2	7343.6	7351.0	7348.6
5°	7503.7	7496.3	7508.6	7513.6	7518.5	7508.6	7491.4	7484.0	7464.3	7456.9	7454.5
7.5°	7597.3	7585.0	7604.7	7621.9	7634.2	7636.7	7639.1	7626.8	7626.8	7617.0	7617.0
10°	7676.1	7666.2	7698.3	7720.4	7759.8	7782.0	7806.6	7823.8	7833.7	7836.2	7833.7
12.5°	7710.6	7703.2	7754.9	7821.4	7895.3	7947.0	8008.5	8052.9	8065.2	8062.7	8075.0
15°	7651.5	7656.4	7735.2	7865.7	8023.3	8153.8	8240.0	8277.0	8286.8	8291.8	8294.2
17.5°	7491.4	7501.2	7614.5	7826.3	8102.1	8338.5	8466.6	8466.6	8446.9	8446.9	8444.4
20°	7235.3	7245.1	7392.9	7698.3	8104.6	8466.6	8648.8	8611.9	8538.0	8523.2	8508.5
22.5°	6880.7	6920.1	7082.6	7437.2	7998.7	8503.5	8762.1	8707.9	8592.2	8560.2	8538.0
25°	6479.2	6474.3	6668.9	7067.8	7742.6	8414.9	8794.1	8784.3	8661.2	8626.7	8587.3
27.5°	6021.2	6036.0	6215.7	6619.6	7351.0	8158.8	8740.0	8870.5	8769.5	8735.0	8698.1
30°	5550.8	5565.6	5735.5	6205.9	6905.3	7791.8	8629.1	8954.2	8914.8	8887.7	8863.1
32.5°	5078.0	5082.9	5284.9	5789.7	6528.5	7353.5	8461.7	9030.5	9084.7	9072.4	9062.6
35°	4634.7	4639.6	4858.8	5371.0	6156.6	6979.2	8259.7	9141.4	9316.2	9331.0	9340.8
37.5°	4203.7	4211.1	4435.2	4972.1	5789.7	6696.0	8035.6	9311.3	9641.3	9695.5	9705.3
40°	3775.2	3782.6	3996.9	4565.8	5417.8	6447.2	7863.3	9550.2	10079.6	10153.5	10229.9
42.5°	3366.4	3393.5	3575.8	4120.0	5004.1	6139.4	7789.4	9840.8	10599.3	10715.0	10801.2
45°	2984.7	2987.2	3194.1	3703.8	4514.0	5723.2	7740.1	10170.8	11180.4	11355.3	11473.5
47.5°	2575.9	2605.5	2822.2	3317.2	4056.0	5208.5	7582.5	10557.4	11813.3	12017.7	12256.6
50°	2179.4	2221.3	2430.6	2920.7	3637.3	4676.6	7158.9	11010.5	12525.1	12791.0	13066.8
52.5°	1797.7	1795.3	2016.9	2526.7	3216.2	4225.9	6471.9	11485.8	13347.6	13633.2	13931.2
55°	1359.4	1359.4	1578.6	2044.0	2760.6	3824.5	5735.5	11781.3	14111.0	14455.8	14780.8
57.5°	933.3	958.0	1164.8	1566.2	2285.3	3457.6	5171.6	11611.4	14694.7	15123.2	15509.8
60°	692.0	716.6	869.3	1125.4	1787.9	3024.1	4748.0	10811.0	15046.8	15615.7	16118.1
62.5°	598.4	615.7	761.0	901.3	1288.0	2563.6	4373.7	9794.0	15554.1	16332.3	17031.7
65°	534.4	551.6	696.9	778.2	1007.2	2061.2	4164.3	9212.8	16159.9	17349.4	18364.0
67.5°	495.0	514.7	637.8	696.9	879.2	1864.2	4001.8	9077.3	16155.0	17598.1	18893.5
69°	475.3	490.1	591.0	655.1	849.6	1805.1	3649.7	8488.8	15088.7	16637.7	17938.0
70°	463.0	477.8	563.9	628.0	839.8	1699.2	3324.6	7710.6	13874.6	15433.4	16753.4
72.5°	423.6	438.4	502.4	561.5	699.4	1135.3	2317.4	4935.2	9914.6	11027.8	12537.4
75°	374.3	391.6	440.8	490.1	529.5	657.5	1337.2	2561.2	5669.0	6513.7	7858.3
77.5°	305.4	322.6	374.3	453.1	448.2	499.9	869.3	1573.6	2654.7	3292.6	3790.0
80°	251.2	263.5	307.8	458.1	366.9	418.7	704.3	1290.4	1869.2	2066.2	2184.4
82.5°	167.5	184.7	238.9	359.5	280.7	298.0	527.0	1206.7	1581.0	1733.7	1876.5
85°	78.8	86.2	145.3	192.1	169.9	160.1	300.4	852.1	1177.1	1248.6	1302.7
87.5°	0.0	0.0	7.4	14.8	22.2	22.2	54.2	179.8	330.0	398.9	394.0
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):

	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°	83°
0°	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0
2.5°	7338.7	7341.2	7338.7	7338.7	7336.2	7331.3	7331.3	7326.4	7328.9	7326.4	7331.3
5°	7452.0	7452.0	7444.6	7439.7	7447.1	7439.7	7442.1	7429.8	7429.8	7422.4	7412.6
7.5°	7614.5	7614.5	7617.0	7602.2	7612.1	7614.5	7607.1	7602.2	7597.3	7585.0	7587.4
10°	7831.2	7831.2	7838.6	7818.9	7828.8	7833.7	7836.2	7836.2	7831.2	7809.1	7811.5
12.5°	8072.6	8067.7	8070.1	8060.3	8070.1	8075.0	8080.0	8075.0	8075.0	8070.1	8067.7
15°	8291.8	8289.3	8294.2	8286.8	8289.3	8294.2	8309.0	8306.5	8304.1	8289.3	8289.3
17.5°	8442.0	8434.6	8429.7	8427.2	8427.2	8424.7	8427.2	8427.2	8419.8	8417.3	8417.3
20°	8498.6	8478.9	8466.6	8459.2	8449.4	8444.4	8439.5	8442.0	8437.0	8429.7	8432.1
22.5°	8508.5	8481.4	8456.8	8434.6	8414.9	8402.6	8390.3	8385.3	8373.0	8365.6	8365.6
25°	8555.3	8513.4	8474.0	8437.0	8407.5	8380.4	8353.3	8333.6	8318.8	8301.6	8296.7
27.5°	8658.7	8614.4	8567.6	8520.8	8481.4	8427.2	8390.3	8350.9	8316.4	8289.3	8269.6
30°	8818.8	8774.4	8727.6	8673.5	8621.7	8565.1	8503.5	8456.8	8407.5	8353.3	8323.8
32.5°	9030.5	9001.0	8954.2	8902.5	8855.7	8796.6	8722.7	8651.3	8604.5	8540.5	8493.7
35°	9333.5	9299.0	9284.2	9262.0	9215.2	9178.3	9097.0	9030.5	8986.2	8897.6	8863.1
37.5°	9747.2	9744.7	9757.0	9749.6	9757.0	9710.2	9673.3	9670.8	9606.8	9520.6	9436.9
40°	10311.1	10340.7	10407.2	10454.0	10498.3	10503.2	10554.9	10500.8	10508.1	10495.8	10409.6
42.5°	10953.9	11054.8	11133.7	11271.6	11377.5	11476.0	11542.5	11633.6	11702.5	11764.1	11778.9
45°	11670.5	11820.7	12003.0	12126.1	12333.0	12498.0	12724.5	12899.4	13081.6	13261.4	13325.4
47.5°	12448.7	12635.9	12837.8	13066.8	13327.9	13586.5	13936.2	14204.6	14497.6	14741.4	14958.2
50°	13308.2	13502.7	13773.6	14037.1	14396.7	14694.7	15152.7	15504.9	15977.7	16302.8	16583.5
52.5°	14204.6	14448.4	14751.3	15041.9	15408.8	15790.5	16300.3	16819.9	17388.8	17881.3	18290.1
55°	15081.3	15381.7	15672.3	16012.2	16418.5	16861.8	17438.0	18122.7	18831.9	19395.9	19937.6
57.5°	15861.9	16209.2	16551.5	16896.3	17312.5	17827.1	18474.8	19213.6	20026.3	20777.4	21521.1
60°	16586.0	17002.2	17420.8	17851.8	18329.5	18964.9	19743.1	20651.8	21703.4	22730.3	23703.0
62.5°	17731.1	18277.8	18797.4	19354.0	19930.3	20676.4	21595.0	22786.9	23993.6	25276.7	26274.0
65°	19282.6	20050.9	20730.6	21452.2	22198.4	23195.7	24294.1	25719.9	27448.7	28763.8	30364.5
67.5°	20053.4	21065.5	21939.8	22742.6	23666.1	24673.3	25978.5	27665.4	29510.0	31416.1	33201.5
69°	19147.1	20191.3	21159.1	22058.0	22991.3	23969.0	25333.3	27064.6	29015.0	31076.2	32819.8
70°	17972.4	19016.6	20048.5	21072.9	21925.0	22878.0	24247.3	26032.7	27980.7	30123.2	31852.0
72.5°	13768.7	15024.6	15958.0	16918.4	17906.0	18713.7	20294.7	21799.4	23828.6	26003.2	27906.8
75°	8808.9	9963.9	10983.4	11801.0	12766.4	13734.2	14901.5	16573.7	17844.4	19629.8	21173.9
77.5°	4526.4	4868.7	5851.3	6144.3	6814.2	7341.2	7983.9	8402.6	9436.9	9656.1	10567.2
80°	2145.0	1933.2	1819.9	1716.5	1746.0	1733.7	1682.0	1613.0	1699.2	1662.3	1647.5
82.5°	1869.2	1667.2	1329.8	1130.4	977.7	829.9	714.2	655.1	662.5	682.2	689.5
85°	1310.1	1231.3	960.4	728.9	568.9	440.8	354.6	339.8	349.7	376.8	366.9
87.5°	379.2	396.5	349.7	243.8	169.9	123.1	96.0	108.4	103.4	101.0	105.9
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):

	84°	85°	86°	87°	88°	89°	90°	91°	92°	93°	94°
0°	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0
2.5°	7331.3	7328.9	7321.5	7314.1	7314.1	7309.2	7314.1	7316.5	7314.1	7314.1	7309.2
5°	7415.0	7417.5	7424.9	7410.1	7407.7	7410.1	7400.3	7397.8	7397.8	7397.8	7388.0
7.5°	7575.1	7582.5	7582.5	7572.7	7570.2	7577.6	7562.8	7557.9	7550.5	7548.0	7545.6
10°	7814.0	7821.4	7809.1	7801.7	7794.3	7804.1	7791.8	7791.8	7784.4	7777.1	7774.6
12.5°	8080.0	8075.0	8070.1	8075.0	8067.7	8067.7	8060.3	8055.3	8052.9	8050.4	8045.5
15°	8286.8	8304.1	8304.1	8309.0	8304.1	8304.1	8294.2	8296.7	8291.8	8289.3	8291.8
17.5°	8419.8	8424.7	8437.0	8444.4	8444.4	8446.9	8442.0	8446.9	8442.0	8442.0	8451.8
20°	8437.0	8442.0	8454.3	8466.6	8474.0	8478.9	8478.9	8486.3	8491.2	8496.2	8508.5
22.5°	8368.1	8375.5	8390.3	8412.4	8424.7	8429.7	8439.5	8451.8	8464.1	8474.0	8491.2
25°	8296.7	8299.1	8313.9	8336.1	8350.9	8363.2	8380.4	8395.2	8412.4	8432.1	8451.8
27.5°	8257.3	8254.8	8267.1	8289.3	8301.6	8318.8	8333.6	8355.8	8375.5	8400.1	8417.3
30°	8291.8	8272.1	8274.5	8284.4	8294.2	8306.5	8323.8	8343.5	8365.6	8387.8	8407.5
32.5°	8444.4	8400.1	8370.6	8363.2	8365.6	8368.1	8377.9	8390.3	8407.5	8424.7	8432.1
35°	8774.4	8698.1	8658.7	8626.7	8599.6	8577.4	8582.3	8579.9	8579.9	8594.7	8577.4
37.5°	9402.4	9306.4	9264.5	9207.9	9175.8	9094.6	9072.4	9067.5	9035.5	9035.5	8998.5
40°	10387.5	10330.8	10298.8	10247.1	10092.0	10111.7	10000.8	10003.3	9912.2	9922.0	9858.0
42.5°	11788.7	11796.1	11756.7	11722.2	11601.6	11547.4	11443.9	11296.2	11180.4	11178.0	11049.9
45°	13409.1	13497.8	13372.2	13416.5	13310.6	13165.3	13044.7	12855.0	12675.3	12618.6	12488.1
47.5°	15103.5	15248.7	15152.7	15169.9	15118.2	14911.4	14748.8	14514.9	14280.9	14123.3	14044.5
50°	16913.5	17009.5	17007.1	16960.3	16935.7	16733.7	16472.7	16295.4	16123.0	15911.2	15842.2
52.5°	18553.6	18777.7	18928.0	18893.5	18822.1	18701.4	18469.9	18317.2	18063.6	18034.0	18063.6
55°	20309.5	20600.1	20752.8	20937.5	20939.9	20917.8	20821.7	20765.1	20528.7	20555.8	20521.3
57.5°	21971.8	22397.8	22631.8	23025.8	23161.3	23341.0	23274.5	23348.4	23205.6	23299.2	23272.1
60°	24225.1	24816.2	25205.3	25744.6	25995.8	26446.4	26535.1	26589.3	26668.1	26860.2	26751.8
62.5°	27059.6	27926.5	28734.2	29468.1	29709.4	30386.7	30497.5	30921.1	30943.2	31073.8	30834.9
65°	31699.3	32755.7	33644.8	34523.9	35031.2	35824.2	36144.4	36966.9	36715.7	36821.6	36311.8
67.5°	34738.2	35967.0	37159.0	37991.3	38833.6	39643.8	40227.4	40759.4	40754.4	40651.0	40197.9
69°	34469.8	35839.0	37013.7	38129.3	39015.8	39848.2	40550.0	40894.8	41015.5	40865.3	40542.7
70°	33541.3	34947.5	36385.7	37304.3	38269.6	39183.3	39907.3	40284.1	40367.8	40261.9	39983.6
72.5°	29251.4	30600.9	32186.9	33021.7	34189.0	34849.0	35846.4	36334.0	36420.2	36284.7	36102.5
75°	22828.8	23072.6	24688.1	25220.0	26067.2	26828.1	27448.7	27291.1	27731.9	27645.7	27576.8
77.5°	10754.4	10104.3	11150.9	11638.5	11382.4	10700.2	11692.7	10976.0	11451.3	12069.5	11911.9
80°	1773.1	1768.2	1815.0	1918.4	1795.3	1906.1	1903.6	1849.5	1854.4	1987.4	1918.4
82.5°	682.2	696.9	704.3	724.0	724.0	726.5	738.8	753.6	741.3	765.9	761.0
85°	369.4	394.0	371.9	354.6	366.9	374.3	384.2	396.5	384.2	421.1	401.4
87.5°	96.0	101.0	88.7	88.7	86.2	78.8	78.8	83.7	91.1	108.4	118.2
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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CATALOG NUMBER: VST-E12-LED-E-U-RW-7060

CANDELA DISTRIBUTION (continued):

	95°	96°	97°	98°	99°	100°	101°	102°	103°	104°	105°
0°	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0
2.5°	7299.3	7301.8	7304.2	7296.8	7291.9	7291.9	7289.5	7284.5	7282.1	7282.1	7282.1
5°	7383.0	7388.0	7375.6	7373.2	7368.3	7363.3	7363.3	7358.4	7360.9	7360.9	7348.6
7.5°	7550.5	7543.1	7528.3	7518.5	7528.3	7511.1	7503.7	7508.6	7503.7	7506.2	7501.2
10°	7774.6	7774.6	7757.4	7767.2	7754.9	7735.2	7742.6	7735.2	7730.3	7713.0	7722.9
12.5°	8052.9	8045.5	8035.6	8013.5	8006.1	8003.6	7981.5	7983.9	7976.5	7971.6	7964.2
15°	8296.7	8294.2	8272.1	8259.7	8257.3	8247.4	8237.6	8232.6	8220.3	8217.9	8212.9
17.5°	8459.2	8451.8	8442.0	8429.7	8429.7	8414.9	8410.0	8397.6	8395.2	8387.8	8380.4
20°	8513.4	8515.9	8506.0	8496.2	8491.2	8481.4	8474.0	8464.1	8459.2	8449.4	8442.0
22.5°	8501.1	8501.1	8491.2	8488.8	8478.9	8464.1	8454.3	8442.0	8429.7	8417.3	8402.6
25°	8461.7	8459.2	8451.8	8439.5	8427.2	8405.0	8385.3	8365.6	8348.4	8333.6	8311.5
27.5°	8427.2	8422.3	8407.5	8390.3	8365.6	8341.0	8304.1	8277.0	8254.8	8235.1	8210.5
30°	8414.9	8397.6	8375.5	8348.4	8318.8	8281.9	8242.5	8208.0	8183.4	8163.7	8153.8
32.5°	8429.7	8407.5	8373.0	8338.5	8301.6	8257.3	8217.9	8188.3	8166.2	8161.2	8161.2
35°	8565.1	8528.2	8481.4	8432.1	8385.3	8348.4	8321.3	8318.8	8304.1	8321.3	8348.4
37.5°	8961.6	8929.6	8858.2	8794.1	8762.1	8744.9	8720.3	8725.2	8690.7	8744.9	8789.2
40°	9803.8	9764.4	9680.7	9629.0	9564.9	9503.4	9552.6	9537.9	9562.5	9552.6	9599.4
42.5°	11032.7	10993.3	10860.3	10840.6	10813.5	10788.9	10788.9	10769.2	10759.3	10793.8	10754.4
45°	12527.5	12448.7	12399.5	12458.6	12377.3	12401.9	12488.1	12372.4	12399.5	12239.4	12091.6
47.5°	14079.0	14071.6	14059.3	14130.7	14143.0	14180.0	14226.7	14108.5	13894.3	13773.6	13473.2
50°	15864.4	15940.8	15970.3	16039.3	16068.8	16095.9	16022.0	15847.2	15485.2	15165.0	14810.4
52.5°	18034.0	17901.0	18083.3	18149.8	18120.2	18011.8	17745.9	17531.6	17031.7	16571.2	16022.0
55°	20560.7	20592.7	20464.6	20412.9	20312.0	20011.5	19644.6	19161.9	18529.0	17928.1	17233.6
57.5°	23134.2	23121.8	22922.4	22641.6	22299.3	21937.3	21390.6	20698.6	19959.8	19152.1	18312.3
60°	26264.2	26251.9	25848.0	25367.8	24880.2	24296.5	23439.5	22607.2	21617.2	20555.8	19555.9
62.5°	30376.8	29847.4	29450.9	28734.2	27980.7	27217.2	26057.3	24951.6	23629.2	22289.5	21122.2
65°	35646.9	34775.1	34324.5	33285.2	32117.9	30926.0	29746.4	28293.4	26512.9	24892.5	23466.6
67.5°	39545.3	38747.4	37922.4	36885.6	35605.0	34275.2	32659.7	30830.0	28808.1	26990.7	25436.7
69°	39887.6	39141.4	38151.4	37112.2	35900.6	34455.0	32691.7	30642.8	28593.9	26754.3	25225.0
70°	39368.0	38575.0	37533.3	36452.2	35097.7	33733.4	31886.4	29751.3	27699.9	25855.4	24363.0
72.5°	35491.8	34718.5	33610.3	32317.4	30928.5	29761.2	28007.8	25781.5	23550.4	21846.2	20683.8
75°	26988.2	26818.3	26032.7	25279.1	24185.7	22883.0	21279.8	19782.5	17952.7	16150.1	15066.5
77.5°	11515.4	11906.9	12315.7	12374.8	12414.2	12012.8	11764.1	11387.3	10163.4	9606.8	9033.0
80°	2127.7	1901.2	2029.2	2044.0	2127.7	2172.1	2334.6	2768.0	2817.3	2923.2	3053.7
82.5°	756.0	768.3	788.0	795.4	802.8	832.4	943.2	1130.4	1300.3	1521.9	1817.4
85°	428.5	435.9	453.1	467.9	477.8	507.3	568.9	679.7	847.2	1100.8	1492.4
87.5°	130.5	147.8	157.6	177.3	184.7	189.6	216.7	290.6	374.3	554.1	807.8
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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CATALOG NUMBER: VST-E12-LED-E-U-RW-7060

CANDELA DISTRIBUTION (continued):

	106°	107°	108°	109°	110°	115°	125°	135°	145°	155°	165°
0°	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0	7287.0
2.5°	7282.1	7279.6	7274.7	7269.8	7272.2	7267.3	7252.5	7247.6	7230.3	7218.0	7208.2
5°	7348.6	7346.1	7336.2	7338.7	7336.2	7311.6	7294.4	7264.8	7247.6	7220.5	7210.6
7.5°	7486.5	7484.0	7466.8	7474.2	7469.2	7432.3	7402.7	7355.9	7331.3	7296.8	7269.8
10°	7693.3	7693.3	7673.6	7676.1	7676.1	7626.8	7575.1	7496.3	7439.7	7385.5	7338.7
12.5°	7944.5	7934.7	7932.2	7919.9	7910.0	7855.9	7777.1	7671.2	7565.3	7476.6	7412.6
15°	8198.2	8183.4	8176.0	8161.2	8148.9	8099.7	7993.8	7863.3	7720.4	7577.6	7471.7
17.5°	8363.2	8353.3	8338.5	8333.6	8316.4	8267.1	8193.2	8062.7	7885.4	7685.9	7525.9
20°	8424.7	8407.5	8397.6	8387.8	8377.9	8343.5	8343.5	8259.7	8062.7	7782.0	7538.2
22.5°	8385.3	8375.5	8360.7	8353.3	8343.5	8348.4	8444.4	8432.1	8205.6	7804.1	7449.5
25°	8294.2	8281.9	8269.6	8269.6	8267.1	8318.8	8550.3	8582.3	8247.4	7695.8	7255.0
27.5°	8200.6	8183.4	8188.3	8190.8	8203.1	8313.9	8666.1	8621.7	8134.1	7434.7	6920.1
30°	8144.0	8144.0	8156.3	8176.0	8200.6	8395.2	8757.2	8533.1	7841.1	7040.7	6476.8
32.5°	8168.6	8193.2	8220.3	8269.6	8306.5	8575.0	8789.2	8304.1	7415.0	6553.1	6013.8
35°	8387.8	8417.3	8469.1	8545.4	8589.7	8833.5	8789.2	7969.1	6920.1	6134.5	5536.0
37.5°	8865.6	8895.1	8956.7	9015.8	9060.1	9158.6	8752.3	7543.1	6506.3	5701.0	5107.5
40°	9633.9	9675.8	9720.1	9710.2	9680.7	9584.6	8678.4	7146.6	6124.6	5321.8	4686.4
42.5°	10715.0	10675.6	10670.7	10574.6	10476.1	10064.9	8624.2	6888.0	5797.1	4922.8	4267.8
45°	11963.6	11803.5	11638.5	11510.4	11360.2	10591.9	8609.4	6678.7	5435.1	4479.6	3812.2
47.5°	13219.5	12963.4	12643.3	12443.8	12200.0	11153.4	8653.8	6398.0	4969.6	3996.9	3386.1
50°	14450.8	14032.2	13635.7	13396.8	13121.0	11798.6	8725.2	5925.1	4413.1	3558.5	2997.0
52.5°	15591.1	15051.7	14645.4	14364.7	14027.3	12549.7	8661.2	5304.6	3930.4	3137.4	2627.7
55°	16674.6	16078.7	15657.5	15362.0	14965.5	13303.3	8198.2	4740.6	3469.9	2726.2	2211.5
57.5°	17622.7	17051.4	16613.1	16211.6	15876.7	13958.3	7284.5	4275.2	3026.6	2255.8	1760.8
60°	18730.9	18088.2	17568.6	17140.1	16746.0	14295.7	6260.1	3861.4	2553.8	1746.0	1273.2
62.5°	20225.8	19487.0	18886.1	18396.0	17881.3	14369.6	5560.7	3447.7	2026.8	1263.3	926.0
65°	22442.2	21531.0	20779.9	20105.1	19408.2	14064.2	5215.9	2997.0	1507.1	938.3	775.7
67.5°	24203.0	23257.3	22388.0	21521.1	20629.6	13497.8	5139.6	2580.9	1157.4	797.9	696.9
69°	23988.7	23087.4	22289.5	21351.2	20363.7	12786.1	5063.2	2420.8	1056.5	741.3	660.0
70°	23163.7	22309.2	21499.0	20735.5	19526.4	11993.1	4861.3	2332.1	1017.1	714.2	632.9
72.5°	19573.2	18583.2	17797.6	16847.0	15573.8	8912.3	3686.6	1886.4	933.3	652.6	571.3
75°	14276.0	13455.9	12672.8	11621.3	10382.5	5156.8	2295.2	1078.6	684.6	591.0	517.2
77.5°	8336.1	8151.4	7395.3	6703.3	5476.9	2625.2	1317.5	645.2	531.9	536.9	455.6
80°	3137.4	3341.8	3418.2	3179.3	2937.9	1812.5	958.0	524.5	463.0	529.5	386.6
82.5°	2287.8	2654.7	2699.1	2585.8	2406.0	1689.4	765.9	421.1	376.8	568.9	332.5
85°	1908.6	2113.0	2145.0	2026.8	1967.7	1430.8	534.4	295.5	275.8	408.8	248.7
87.5°	965.4	1017.1	1044.2	945.7	950.6	667.4	214.3	125.6	150.2	174.8	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: P158082

CATALOG NUMBER: VST-E12-LED-E-U-RW-7060

CANDELA DISTRIBUTION (continued):

	175°	180°
0°	7287.0	7287.0
2.5°	7186.0	7200.8
5°	7195.9	7195.9
7.5°	7252.5	7252.5
10°	7314.1	7316.5
12.5°	7370.7	7368.3
15°	7415.0	7407.7
17.5°	7442.1	7434.7
20°	7415.0	7402.7
22.5°	7277.1	7242.7
25°	7025.9	6981.6
27.5°	6693.5	6663.9
30°	6260.1	6215.7
32.5°	5752.8	5730.6
35°	5267.6	5240.5
37.5°	4824.3	4816.9
40°	4450.0	4410.6
42.5°	4011.7	3994.4
45°	3565.9	3556.1
47.5°	3147.3	3137.4
50°	2760.6	2740.9
52.5°	2381.4	2349.4
55°	1960.3	1938.1
57.5°	1504.7	1485.0
60°	1058.9	1036.8
62.5°	753.6	728.9
65°	628.0	608.3
67.5°	568.9	546.7
69°	541.8	522.1
70°	524.5	509.8
72.5°	487.6	477.8
75°	445.7	438.4
77.5°	391.6	379.2
80°	327.5	315.2
82.5°	275.8	263.5
85°	184.7	167.5
87.5°	83.7	73.9
90°	0.0	0.0

(END OF REPORT)