

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: P165262

Luminaire Tested: **VST-F04-LED-E-U-SL3-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165262
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33727)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-F04-LED-E-U-SL3-HSS
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (28) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5656.8 lumens
Efficiency: N/A
Efficacy: 55.4 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 1' x H: 0.1')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B0 - U0 - G2

Input Watts (W): 102.2
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



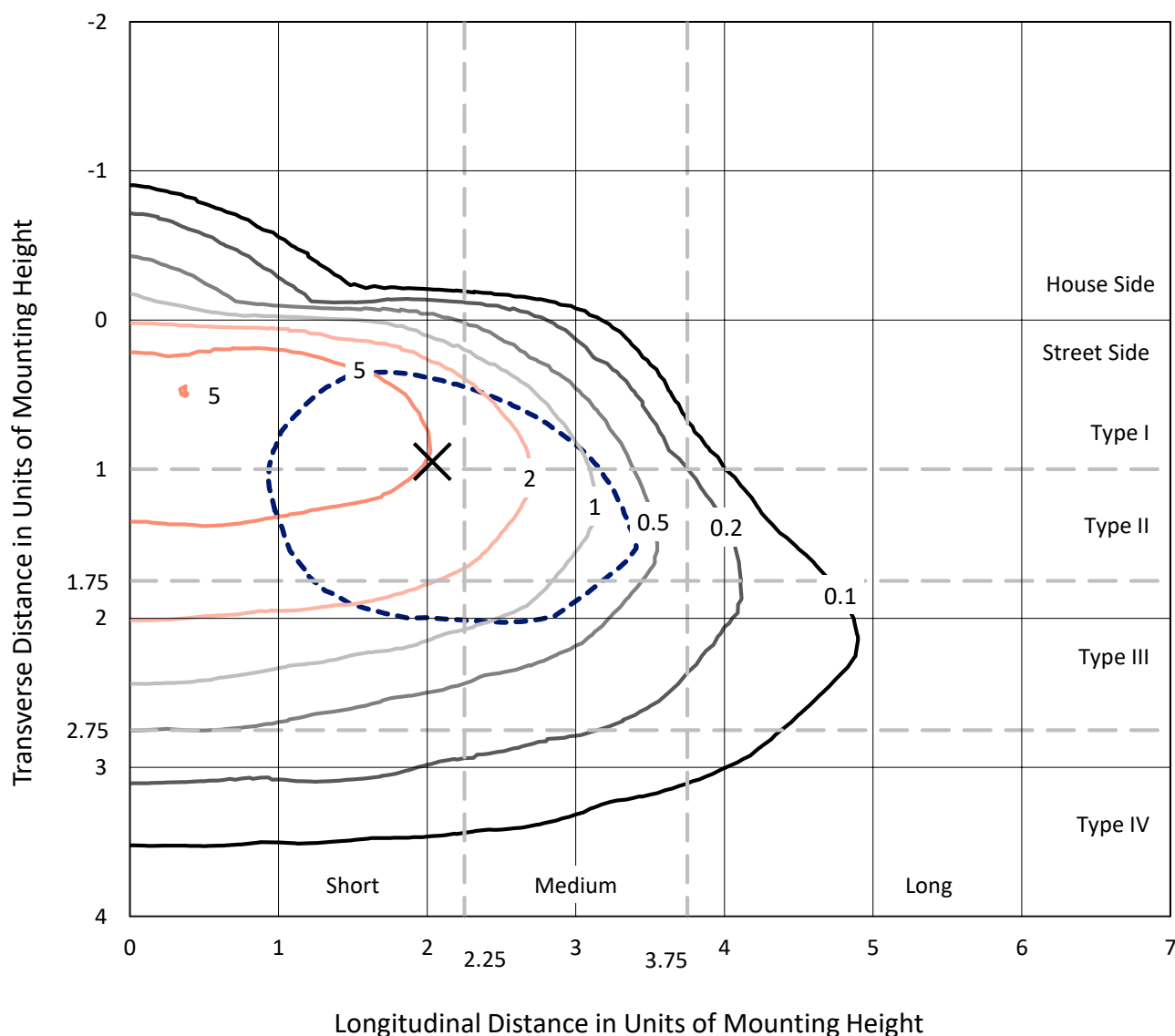
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

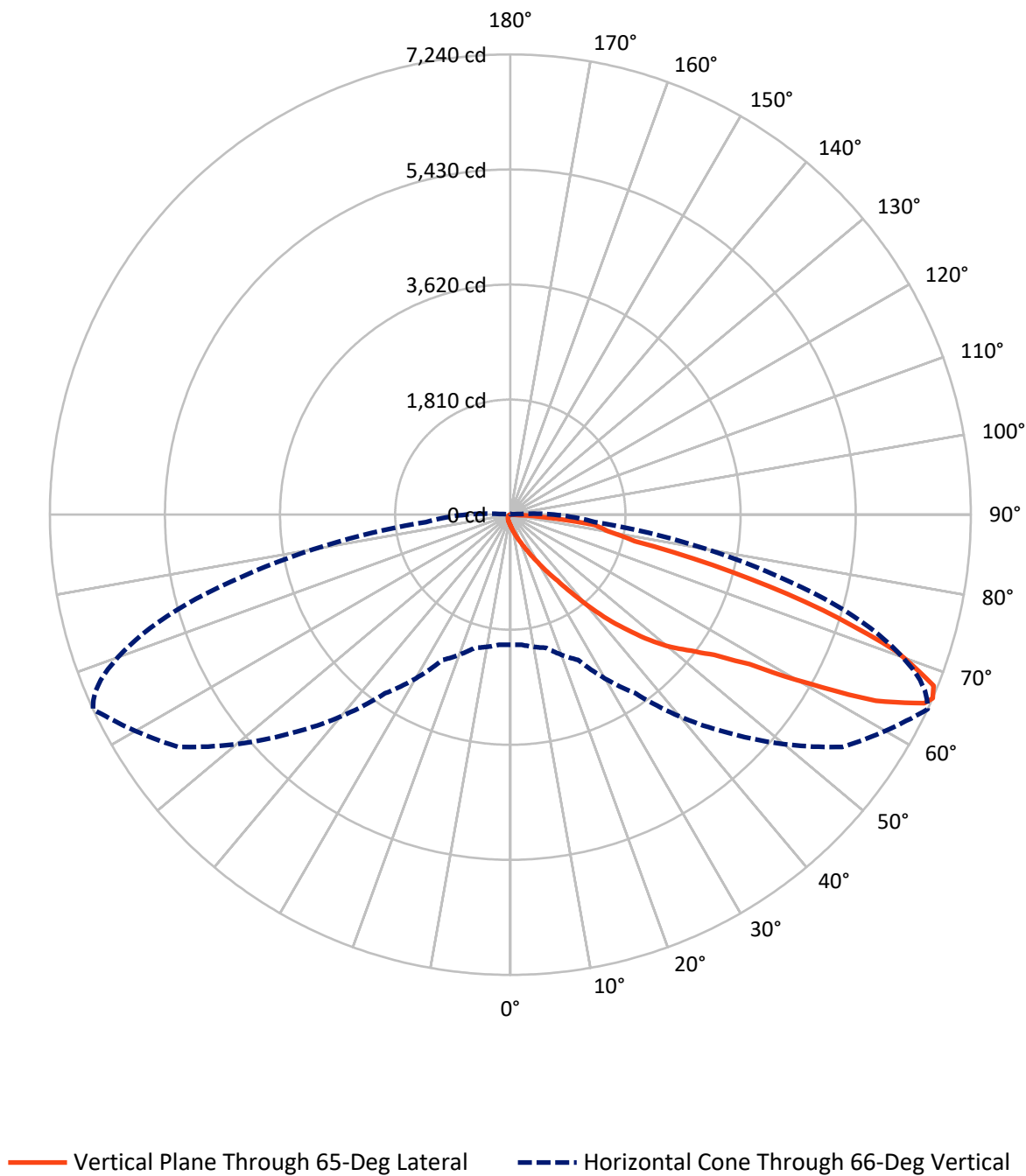


Based on 10 foot mounting height. Maximum calculated value = 9.3 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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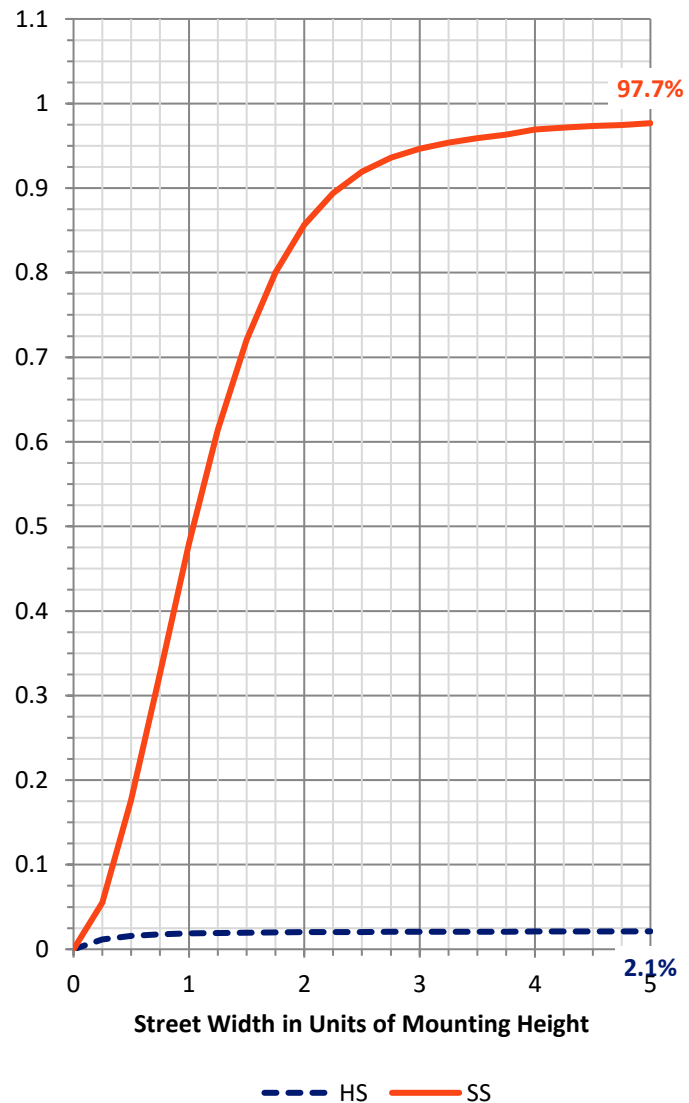
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	122.6	0.0	122.6
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	5534.3	0.0	5534.3
	% Fixture	97.8	0.0	97.8
Total	Lumens	5656.8	0.0	5656.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.1	0.3
10°-20°	81.0	1.4
20°-30°	174.8	3.1
30°-40°	373.3	6.6
40°-50°	825.6	14.6
50°-60°	1399.0	24.7
60°-70°	1866.9	33.0
70°-80°	822.4	14.5
80°-90°	94.7	1.7
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°	5656.8	100.0
0°-180°	5656.8	100.0

Coefficient of Utilization



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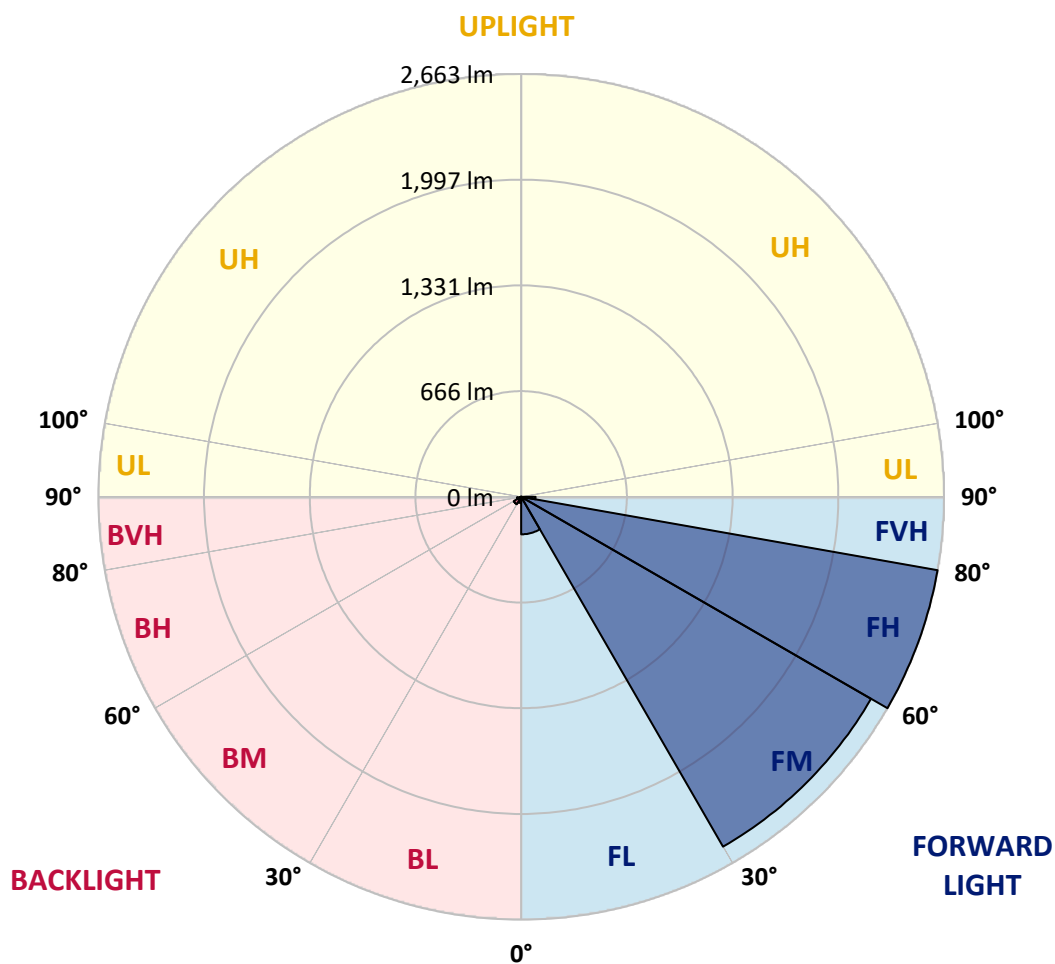
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	236.3	4.2			
FM	(30°-60°)	2544.1	45.0			
FH	(60°-80°)	2663.0	47.1			G2/5000
FVH	(80°-90°)	90.9	1.6			G1/100
BL	(0°-30°)	38.7	0.7	B0/110		
BM	(30°-60°)	53.8	1.0	B0/220		
BH	(60°-80°)	26.3	0.5	B0/110		G0/110
BVH	(80°-90°)	3.8	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	170.7	170.7	170.7	170.7	170.7	170.7	170.7	170.7	170.7	170.7	170.7
2.5°	215.4	214.2	209.9	209.9	203.3	199.1	193.6	188.2	188.2	187.0	186.0
5°	284.9	278.4	277.3	265.4	255.6	241.4	228.4	211.0	208.8	206.6	205.5
7.5°	362.2	361.1	351.3	337.1	317.6	291.4	265.4	237.1	232.7	230.6	226.2
10°	462.2	456.7	443.7	419.8	390.4	355.6	313.2	268.6	263.2	258.8	256.6
12.5°	557.9	548.1	540.5	510.0	473.1	421.9	370.8	306.7	302.3	296.9	288.2
15°	647.1	638.4	625.4	599.3	557.9	493.7	434.0	355.6	344.7	337.1	330.6
17.5°	716.7	711.3	696.0	666.7	622.0	565.5	493.7	405.6	397.0	387.1	375.2
20°	783.1	775.4	751.5	711.3	663.4	619.9	564.5	470.9	458.9	447.0	434.0
22.5°	846.1	838.5	799.4	733.0	681.9	663.4	643.8	544.8	526.4	516.6	503.5
25°	934.2	917.9	857.0	751.5	683.0	697.1	730.8	640.5	623.2	609.0	588.4
27.5°	1052.8	1031.0	935.3	778.7	687.3	734.1	830.9	756.9	738.4	722.1	699.3
30°	1186.5	1172.4	1058.2	844.0	718.9	788.5	942.9	904.8	883.1	863.5	836.4
32.5°	1321.4	1301.8	1188.7	967.9	803.7	893.9	1083.2	1076.7	1048.4	1029.9	1000.5
35°	1439.9	1430.1	1346.4	1171.3	997.3	1078.9	1270.3	1277.8	1252.9	1233.3	1200.6
37.5°	1520.4	1520.4	1504.1	1389.9	1305.1	1365.9	1545.4	1546.5	1521.5	1476.9	1460.6
40°	1561.7	1573.6	1632.4	1654.2	1649.8	1728.1	1906.5	1886.9	1866.2	1843.4	1789.0
42.5°	1646.6	1657.4	1782.5	1932.6	2030.5	2133.8	2256.7	2250.1	2225.2	2183.8	2133.8
45°	1790.1	1804.3	1953.3	2191.4	2392.6	2539.4	2617.7	2587.3	2562.2	2523.1	2497.0
47.5°	1972.8	2000.0	2168.6	2463.3	2705.8	2948.3	3029.9	2949.4	2927.7	2897.2	2854.8
50°	2167.5	2193.6	2373.0	2710.2	2984.2	3273.5	3409.5	3273.5	3242.0	3232.2	3184.3
52.5°	2336.0	2357.8	2530.7	2900.5	3197.4	3536.7	3734.6	3555.2	3532.3	3499.7	3464.9
55°	2436.1	2453.5	2615.5	2991.8	3342.1	3773.8	4049.0	3891.3	3857.5	3844.5	3794.4
57.5°	2469.8	2487.2	2633.0	3003.8	3420.3	3990.2	4430.7	4436.1	4395.9	4349.1	4333.9
60°	2469.8	2489.4	2612.3	2974.5	3496.5	4220.7	4939.6	5393.1	5306.1	5297.4	5242.0
62.5°	2367.6	2386.1	2510.1	2884.2	3598.7	4531.8	5648.7	6449.1	6424.2	6367.6	6276.2
65°	2145.7	2156.6	2278.4	2653.6	3559.5	4817.8	6263.2	7151.7	7111.5	7000.5	6883.1
66°	2045.7	2054.4	2168.6	2522.0	3431.2	4857.0	6371.9	7239.8	7173.5	7079.9	6947.2
67.5°	1901.0	1916.3	1996.7	2277.3	3123.5	4721.0	6303.4	7177.8	7120.2	7007.1	6874.4
70°	1269.2	1258.3	1542.1	1747.7	2379.6	3846.7	5655.2	6444.8	6445.9	6392.6	6339.3
72.5°	602.5	609.0	691.7	1075.6	1557.3	2569.9	4501.4	5144.1	5218.0	5122.3	5056.0
75°	432.8	442.6	492.7	658.0	928.7	1542.1	2917.9	3597.6	3599.8	3430.1	3279.0
77.5°	126.1	131.6	184.9	405.6	696.0	1040.8	1675.9	2000.0	1953.3	1831.4	1717.2
80°	52.2	52.2	54.4	129.4	279.5	706.9	1172.4	1540.0	1534.6	1487.8	1420.4
82.5°	19.5	20.7	26.1	53.3	66.4	174.0	781.9	1336.6	1333.3	1267.0	1219.1
85°	2.2	2.2	6.5	22.9	25.0	32.6	156.6	589.4	586.2	589.4	516.6
87.5°	0.0	0.0	1.1	2.2	3.2	4.4	6.5	22.9	25.0	23.9	21.7
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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	170.7	170.7	170.7	170.7	170.7	170.7	170.7	170.7	170.7	170.7	170.7
2.5°	186.0	183.8	183.8	182.7	182.7	182.7	181.6	180.6	180.6	179.4	178.4
5°	203.3	201.2	200.1	197.9	196.9	195.7	193.6	192.5	190.3	189.2	188.2
7.5°	224.0	219.7	218.6	215.4	212.1	209.9	207.7	204.5	202.3	197.9	196.9
10°	250.2	244.7	240.3	236.0	232.7	227.3	224.0	219.7	215.4	212.1	208.8
12.5°	283.8	276.3	269.7	265.4	257.8	251.2	244.7	241.4	232.7	228.4	223.0
15°	320.8	312.1	304.5	295.8	290.4	279.5	270.8	261.0	256.6	249.0	240.3
17.5°	368.6	354.5	342.6	333.9	323.0	312.1	302.3	292.6	279.5	270.8	259.9
20°	419.8	407.8	391.5	376.3	363.2	350.2	336.0	323.0	311.1	296.9	283.8
22.5°	485.1	467.6	448.1	432.8	415.5	401.3	381.7	364.4	344.7	326.2	311.1
25°	567.7	544.8	526.4	504.6	484.0	462.2	438.3	416.5	391.5	374.1	348.0
27.5°	669.9	648.2	623.2	594.9	574.2	541.6	510.0	482.9	453.5	426.3	397.0
30°	800.4	768.9	742.8	715.6	674.3	642.7	605.7	568.8	528.5	501.4	456.7
32.5°	957.0	923.3	884.2	845.0	807.0	762.4	716.7	671.0	626.4	576.4	530.7
35°	1148.5	1108.2	1063.6	1021.2	962.5	914.6	857.0	793.9	743.9	686.2	628.6
37.5°	1401.9	1335.5	1296.3	1251.8	1172.4	1107.1	1042.9	979.9	891.8	830.9	749.3
40°	1719.4	1680.2	1616.1	1544.3	1472.5	1386.6	1299.6	1215.9	1113.7	1028.8	934.2
42.5°	2092.4	2034.8	1969.6	1866.2	1793.4	1692.2	1593.3	1482.3	1357.2	1248.5	1137.6
45°	2442.6	2374.1	2324.1	2220.8	2144.6	2025.0	1905.4	1788.0	1643.3	1503.0	1374.7
47.5°	2821.1	2764.5	2681.9	2598.2	2521.0	2386.1	2256.7	2114.2	1961.9	1795.5	1629.1
50°	3153.9	3109.3	3052.7	2951.6	2865.7	2752.6	2600.3	2444.8	2252.3	2087.0	1897.8
52.5°	3436.6	3401.8	3322.4	3250.7	3173.4	3066.9	2930.9	2782.0	2574.3	2392.6	2177.3
55°	3770.5	3745.5	3675.9	3631.3	3562.8	3460.6	3333.3	3195.2	2975.5	2777.6	2534.0
57.5°	4317.6	4298.0	4237.1	4218.6	4151.1	4062.0	3905.4	3757.5	3500.8	3255.0	2976.6
60°	5223.5	5184.4	5095.1	5049.5	4907.0	4787.4	4584.0	4380.6	4070.7	3757.5	3422.5
62.5°	6193.6	6083.7	5914.1	5768.4	5566.1	5358.3	5086.4	4775.4	4412.2	4040.3	3655.2
65°	6716.7	6529.6	6315.4	6083.7	5821.7	5516.0	5173.5	4800.5	4410.0	4017.4	3610.6
66°	6776.5	6565.5	6338.2	6080.5	5789.0	5463.9	5115.8	4724.3	4318.6	3935.8	3529.1
67.5°	6701.5	6480.7	6240.4	5954.3	5638.9	5301.8	4936.4	4529.6	4139.2	3750.9	3355.1
70°	6176.2	5956.5	5742.2	5441.0	5104.9	4765.7	4419.8	3965.2	3595.5	3238.7	2886.4
72.5°	4932.0	4783.0	4571.0	4313.2	3985.8	3587.8	3299.6	2892.9	2572.1	2226.2	1953.3
75°	3082.1	2872.2	2610.1	2281.7	2031.5	1708.5	1540.0	1231.1	1048.4	888.5	734.1
77.5°	1575.8	1418.2	1234.4	1049.5	872.2	696.0	538.3	380.7	256.6	178.4	132.7
80°	1301.8	1162.6	1010.3	841.8	685.2	531.8	382.8	261.0	166.4	108.8	84.8
82.5°	1075.6	958.1	822.2	665.6	529.7	417.6	290.4	189.2	117.4	76.1	59.8
85°	457.9	415.5	320.8	254.5	191.4	141.4	99.0	66.4	46.8	38.0	34.8
87.5°	19.5	21.7	20.7	16.3	12.0	12.0	10.9	8.7	8.7	8.7	8.7
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):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	170.7	170.7	170.7	170.7	170.7	170.7	170.7	170.7	170.7	170.7	170.7
2.5°	178.4	177.3	176.2	176.2	175.1	174.0	167.5	162.1	155.5	151.2	146.8
5°	186.0	184.9	182.7	181.6	179.4	178.4	164.2	152.2	142.5	134.9	129.4
7.5°	193.6	192.5	189.2	186.0	184.9	182.7	159.9	144.6	131.6	122.9	117.4
10°	203.3	200.1	196.9	192.5	189.2	186.0	155.5	135.9	121.8	114.2	108.8
12.5°	217.5	212.1	206.6	201.2	196.9	191.4	153.3	128.3	114.2	105.5	100.1
15°	233.9	226.2	219.7	213.2	205.5	200.1	149.0	121.8	107.6	99.0	92.5
17.5°	249.0	240.3	230.6	220.8	213.2	205.5	144.6	115.3	101.1	92.5	85.9
20°	270.8	257.8	245.8	233.9	223.0	213.2	138.1	108.8	95.7	85.9	79.4
22.5°	294.7	279.5	264.3	248.0	233.9	220.8	132.7	103.3	90.3	80.5	72.8
25°	325.2	306.7	286.0	265.4	249.0	231.7	127.3	97.9	84.8	75.0	67.4
27.5°	367.6	341.5	318.7	292.6	267.5	248.0	122.9	93.5	79.4	69.6	62.0
30°	425.2	387.1	351.3	323.0	293.6	265.4	118.5	88.1	75.0	64.2	55.5
32.5°	489.4	444.8	403.5	361.1	324.1	291.4	114.2	83.7	69.6	58.7	51.1
35°	568.8	512.2	456.7	407.8	363.2	319.7	109.8	79.4	65.2	53.3	45.7
37.5°	683.0	612.3	539.4	476.4	418.7	361.1	106.6	75.0	59.8	47.9	40.2
40°	839.6	748.3	659.0	573.1	498.1	426.3	102.2	70.7	55.5	43.5	35.9
42.5°	1009.3	898.3	780.9	684.1	580.8	490.5	97.9	66.4	51.1	39.2	31.6
45°	1220.3	1082.1	939.6	808.0	681.9	565.5	93.5	62.0	45.7	34.8	27.2
47.5°	1450.8	1274.6	1113.7	948.4	798.2	659.0	88.1	58.7	41.3	30.4	23.9
50°	1687.9	1501.9	1298.5	1110.4	932.1	752.6	82.7	53.3	37.0	27.2	19.5
52.5°	1943.4	1723.8	1516.1	1282.2	1074.5	875.5	77.2	48.9	33.7	23.9	16.3
55°	2268.6	2022.9	1779.2	1517.1	1267.0	1018.0	71.8	43.5	29.4	20.7	13.1
57.5°	2677.5	2386.1	2087.0	1791.2	1487.8	1205.0	67.4	38.0	25.0	17.4	10.9
60°	3063.6	2723.2	2361.1	2020.7	1678.1	1348.6	60.9	33.7	21.7	14.1	10.9
62.5°	3263.7	2875.5	2485.0	2109.8	1744.4	1399.7	54.4	28.3	18.5	12.0	9.8
65°	3214.8	2818.9	2440.4	2062.0	1704.2	1367.1	47.9	25.0	16.3	10.9	9.8
66°	3144.1	2752.6	2372.0	2012.0	1670.5	1332.3	44.6	23.9	15.3	10.9	8.7
67.5°	2989.7	2611.2	2247.9	1913.0	1578.0	1265.9	40.2	21.7	14.1	9.8	8.7
70°	2553.6	2209.9	1919.5	1621.5	1348.6	1066.9	32.6	18.5	12.0	8.7	8.7
72.5°	1690.0	1456.2	1262.7	1086.5	908.1	704.7	27.2	15.3	9.8	8.7	7.6
75°	637.3	576.4	494.9	444.8	388.3	340.4	21.7	9.8	7.6	7.6	7.6
77.5°	113.1	104.4	92.5	84.8	78.3	71.8	17.4	6.5	6.5	7.6	7.6
80°	76.1	70.7	64.2	58.7	54.4	48.9	12.0	5.4	6.5	6.5	7.6
82.5°	54.4	51.1	47.9	43.5	40.2	35.9	7.6	5.4	6.5	6.5	6.5
85°	32.6	30.4	28.3	26.1	22.9	21.7	5.4	5.4	5.4	6.5	6.5
87.5°	8.7	7.6	8.7	8.7	6.5	7.6	4.4	4.4	4.4	5.4	5.4
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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CATALOG NUMBER: VST-F04-LED-E-U-SL3-HSS

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	170.7	170.7	170.7	170.7	170.7
2.5°	144.6	144.6	142.5	145.8	145.8
5°	125.1	125.1	124.0	125.1	125.1
7.5°	114.2	113.1	113.1	113.1	114.2
10°	104.4	103.3	103.3	103.3	103.3
12.5°	95.7	94.6	93.5	94.6	94.6
15°	88.1	85.9	85.9	85.9	85.9
17.5°	81.6	79.4	78.3	78.3	78.3
20°	75.0	71.8	71.8	71.8	71.8
22.5°	68.5	65.2	65.2	65.2	65.2
25°	62.0	58.7	58.7	58.7	58.7
27.5°	56.5	53.3	53.3	53.3	53.3
30°	50.1	47.9	47.9	48.9	47.9
32.5°	45.7	42.4	42.4	43.5	43.5
35°	40.2	38.0	38.0	38.0	38.0
37.5°	34.8	32.6	32.6	32.6	32.6
40°	30.4	28.3	27.2	28.3	28.3
42.5°	26.1	23.9	22.9	22.9	22.9
45°	22.9	19.5	18.5	19.5	19.5
47.5°	18.5	16.3	16.3	17.4	17.4
50°	14.1	14.1	15.3	17.4	17.4
52.5°	13.1	13.1	15.3	17.4	17.4
55°	12.0	13.1	15.3	16.3	17.4
57.5°	10.9	13.1	15.3	16.3	16.3
60°	10.9	12.0	14.1	16.3	16.3
62.5°	9.8	10.9	13.1	15.3	15.3
65°	9.8	10.9	13.1	15.3	15.3
66°	9.8	10.9	13.1	15.3	15.3
67.5°	9.8	10.9	13.1	15.3	15.3
70°	9.8	10.9	13.1	14.1	14.1
72.5°	8.7	9.8	12.0	14.1	14.1
75°	8.7	9.8	12.0	14.1	14.1
77.5°	8.7	9.8	12.0	14.1	14.1
80°	8.7	9.8	12.0	13.1	14.1
82.5°	7.6	9.8	10.9	13.1	13.1
85°	7.6	8.7	10.9	12.0	13.1
87.5°	6.5	7.6	8.7	10.9	10.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)