

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: P271004

Luminaire Tested: **NVN-AF-04-LED-U-SL4-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P271004
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24284)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-AF-04-LED-U-SL4-7027-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16336.8 lumens
Efficiency: N/A
Efficacy: 95.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U0 - G3

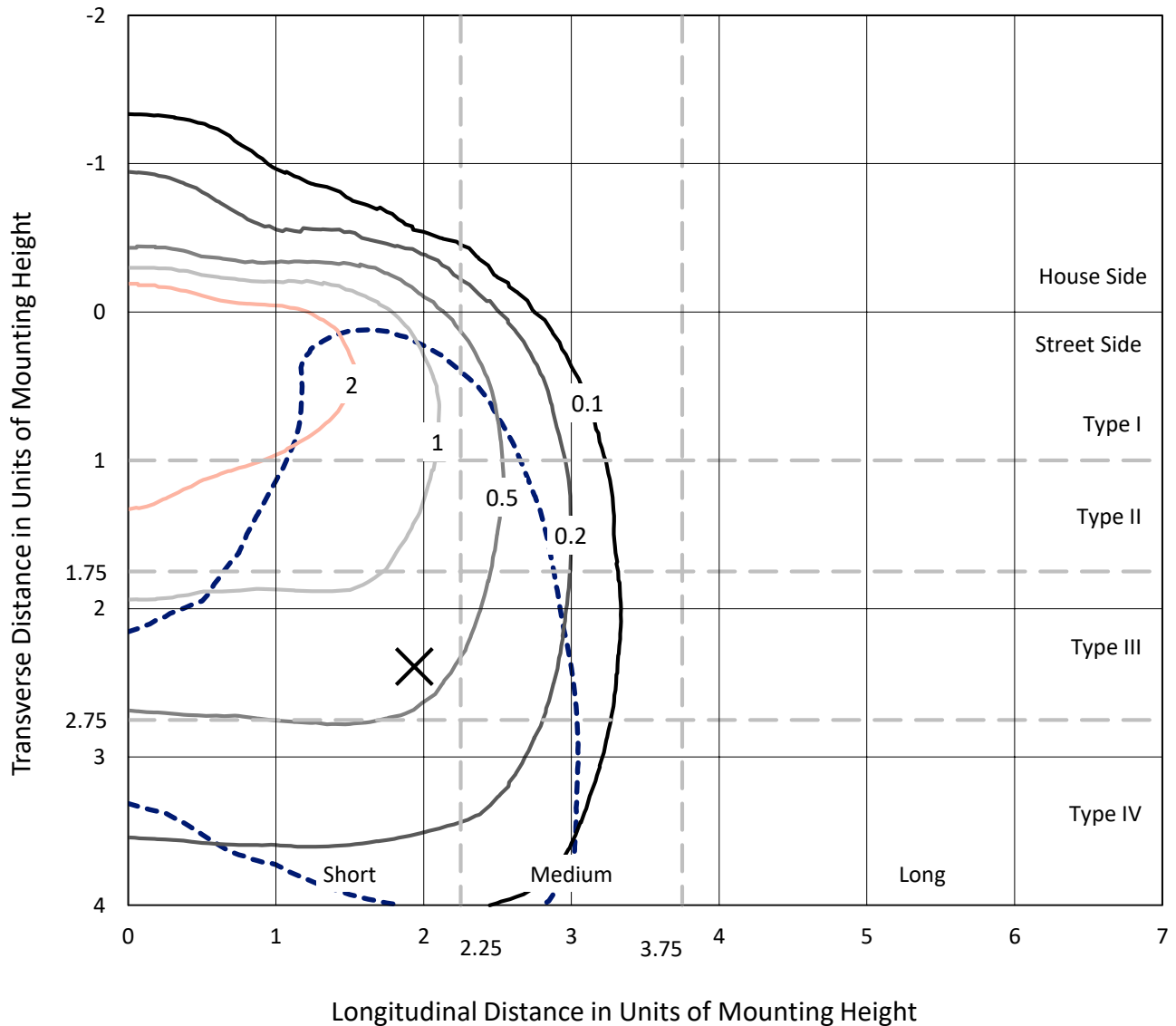
Input Watts (W): 171
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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 CATALOG NUMBER: NVN-AF-04-LED-U-SL4-7027-800

Iso-Footcandle Lines of Horizontal Illumination

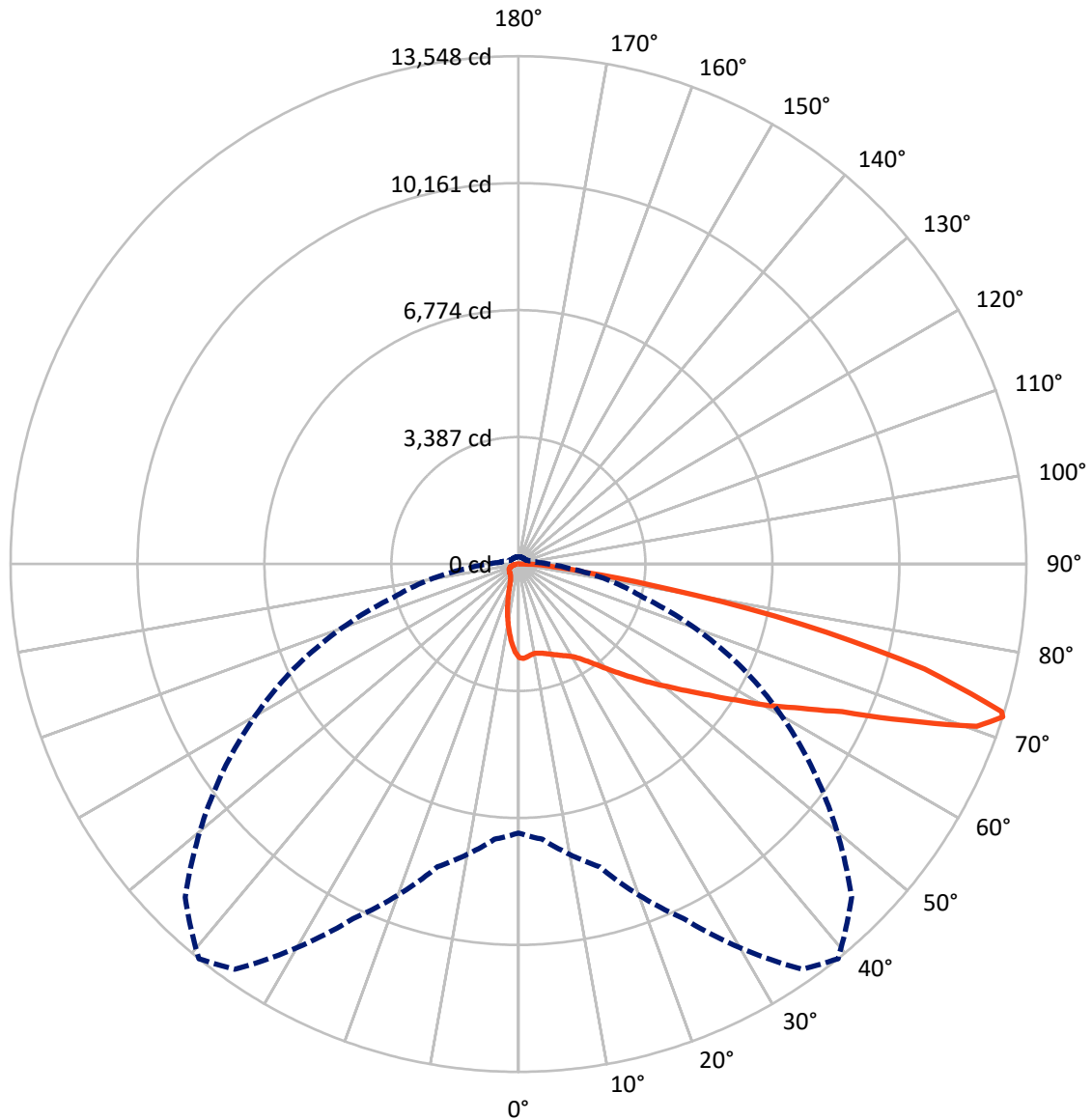
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P271004
CATALOG NUMBER: NVN-AF-04-LED-U-SL4-7027-800

Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

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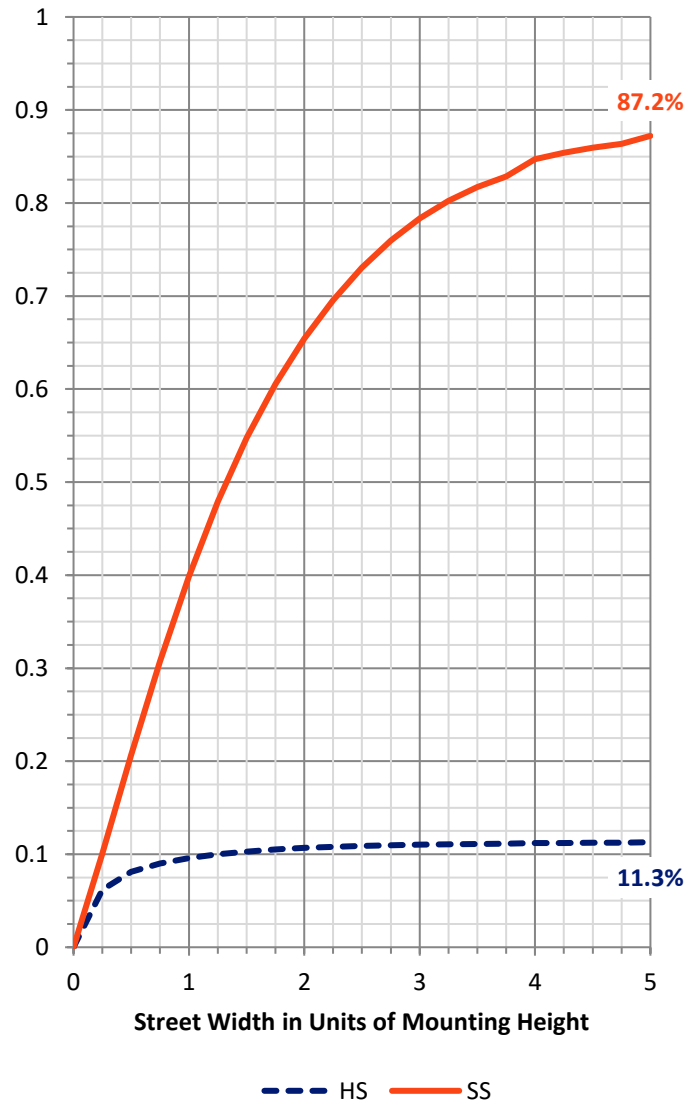
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1873.2	0.0	1873.2
	% Fixture	11.5	0.0	11.5
Street Side	Lumens	14463.5	0.0	14463.5
	% Fixture	88.5	0.0	88.5
Total	Lumens	16336.8	0.0	16336.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.4	1.3
10°-20°	538.7	3.3
20°-30°	839.6	5.1
30°-40°	1292.7	7.9
40°-50°	2107.4	12.9
50°-60°	3274.6	20.0
60°-70°	4383.0	26.8
70°-80°	3152.0	19.3
80°-90°	534.3	3.3
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°	16336.8	100.0
0°-180°	16336.8	100.0

Coefficient of Utilization



REPORT NUMBER: P271004

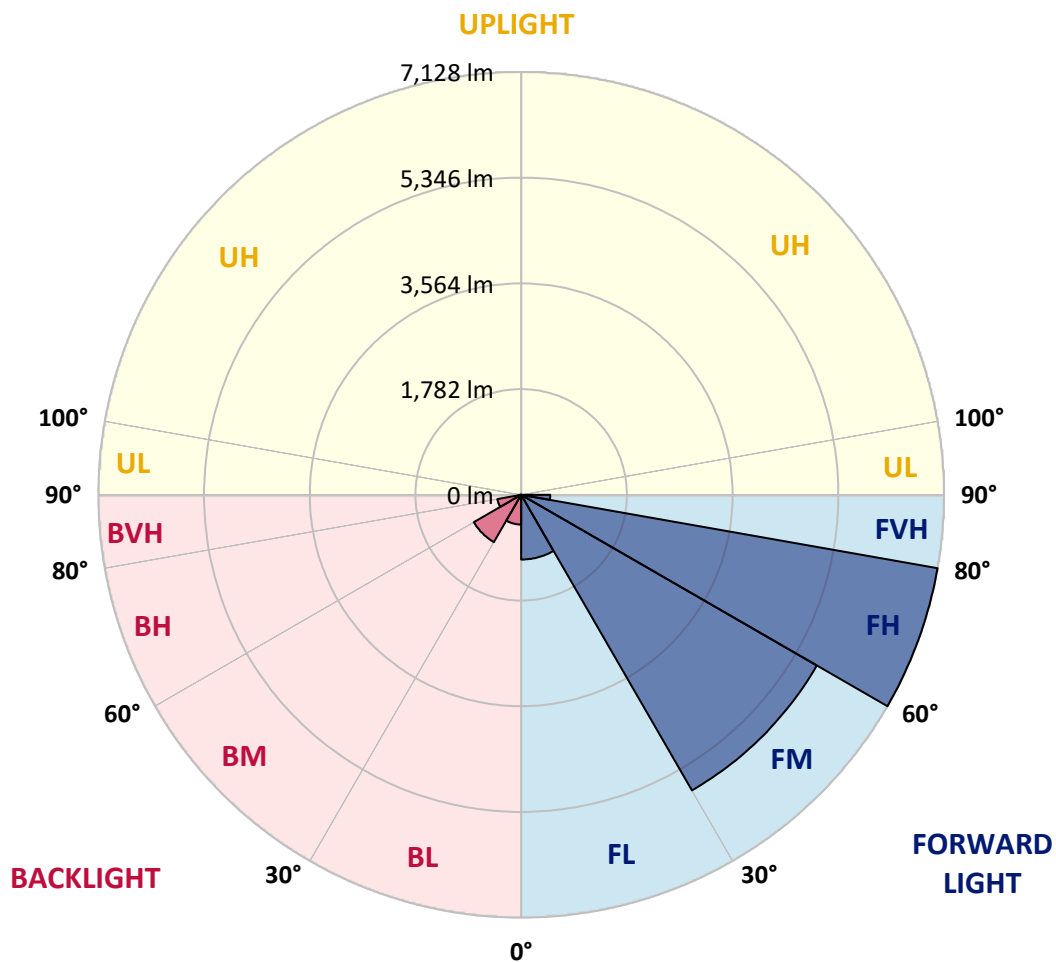
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1091.3	6.7			
FM	(30°-60°)	5754.1	35.2			
FH	(60°-80°)	7128.0	43.6			G3/7500
FVH	(80°-90°)	490.2	3.0			G3/500
BL	(0°-30°)	501.5	3.1	B2/1000		
BM	(30°-60°)	920.6	5.6	B1/1000		
BH	(60°-80°)	407.0	2.5	B1/500		G1/500
BVH	(80°-90°)	44.2	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short





REPORT NUMBER: P271004

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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	2495.0	2495.0	2495.0	2495.0	2495.0	2495.0	2495.0	2495.0	2495.0	2495.0	2495.0
2.5°	2548.6	2549.7	2546.4	2536.5	2527.8	2523.3	2515.8	2502.6	2485.0	2472.9	2463.2
5°	2524.5	2527.8	2525.7	2509.1	2493.9	2485.0	2472.9	2454.3	2431.4	2421.4	2398.5
7.5°	2505.9	2508.1	2501.5	2482.8	2453.2	2442.3	2420.4	2396.1	2375.4	2361.1	2333.6
10°	2492.7	2495.0	2489.5	2470.8	2437.9	2424.7	2398.5	2372.1	2344.7	2327.1	2296.3
12.5°	2474.1	2478.5	2478.5	2469.7	2447.7	2439.0	2412.7	2384.1	2358.9	2340.3	2301.8
15°	2470.8	2476.3	2486.1	2485.0	2478.5	2471.9	2451.0	2422.5	2400.6	2378.7	2331.6
17.5°	2498.1	2510.3	2529.9	2536.5	2532.2	2517.9	2493.9	2467.6	2443.4	2422.5	2364.3
20°	2567.3	2573.9	2603.5	2616.7	2594.8	2573.9	2542.1	2508.1	2486.1	2469.7	2395.2
22.5°	2671.5	2680.3	2704.3	2705.4	2659.4	2634.2	2593.6	2551.9	2531.2	2524.5	2436.8
25°	2838.1	2835.9	2842.5	2815.2	2731.7	2702.2	2652.9	2604.5	2590.4	2603.5	2498.1
27.5°	3037.8	3032.3	3011.5	2940.2	2814.0	2775.7	2716.5	2673.6	2673.6	2704.3	2581.5
30°	3268.0	3262.6	3194.6	3075.1	2911.6	2867.7	2805.2	2760.3	2783.4	2842.5	2694.5
32.5°	3511.6	3491.8	3396.4	3236.2	3051.0	3002.7	2942.4	2896.2	2940.2	3041.0	2856.8
35°	3740.7	3729.8	3612.4	3422.7	3230.8	3190.2	3148.5	3091.4	3161.7	3318.5	3085.9
37.5°	3977.6	3968.8	3825.2	3623.5	3450.1	3422.7	3387.6	3348.2	3461.1	3667.2	3396.4
40°	4241.8	4224.4	4043.5	3841.6	3705.7	3692.5	3673.9	3662.8	3844.9	4152.0	3789.1
42.5°	4541.3	4507.2	4273.6	4081.8	3984.3	3995.1	3985.3	4029.2	4307.7	4711.3	4256.2
45°	4883.5	4815.5	4502.9	4337.3	4292.3	4336.2	4357.0	4468.9	4854.9	5357.2	4778.2
47.5°	5203.7	5115.9	4754.0	4614.8	4639.9	4715.7	4774.9	4972.3	5454.8	5995.5	5311.1
50°	5498.6	5400.0	5022.8	4902.1	5024.8	5132.3	5255.3	5533.7	6093.1	6652.4	5800.3
52.5°	5717.0	5645.7	5291.5	5215.7	5466.8	5609.5	5805.7	6157.8	6737.9	7278.5	6236.8
55°	5885.9	5847.4	5553.5	5575.5	5966.9	6170.9	6408.9	6813.6	7420.0	7840.0	6587.7
57.5°	6081.0	6052.5	5852.8	6009.8	6587.7	6844.2	7125.0	7574.7	8069.3	8334.7	6863.0
60°	6287.1	6287.1	6186.3	6532.8	7364.1	7658.1	7937.7	8287.6	8716.3	8779.9	6974.8
62.5°	6443.0	6483.4	6519.7	7090.0	8101.0	8466.3	8773.3	9109.0	9386.4	8999.2	6711.5
65°	6668.8	6755.4	6959.4	7733.7	9013.6	9491.6	9906.1	10188.0	9929.2	8824.9	5852.8
67.5°	7057.1	7185.4	7619.7	8692.2	10410.6	11126.8	11529.2	11042.3	9822.8	7727.1	4483.3
70°	7406.9	7587.9	8330.3	9908.3	12226.7	12970.3	12784.9	10843.8	8555.1	5664.4	2758.2
72°	7174.5	7371.9	8363.2	10438.0	13197.3	13548.1	12571.2	9610.1	6610.6	3456.7	1359.9
72.5°	7022.0	7227.0	8256.9	10424.9	13223.6	13474.8	12273.9	9120.0	6000.9	3024.7	1100.0
75°	5866.1	6041.6	7099.8	9239.3	11653.3	11192.6	9578.3	5902.3	2758.2	977.1	565.9
77.5°	3830.6	3964.5	4895.6	6401.2	8162.4	7719.5	5829.9	2763.5	1034.2	593.3	425.4
80°	1924.7	2020.1	2619.9	3365.7	4405.3	4053.3	2691.2	1336.9	692.1	428.9	334.4
82.5°	1339.1	1426.8	1804.1	1718.5	1841.3	1782.1	1265.5	1115.3	517.7	270.8	175.4
85°	1123.1	1214.0	1492.5	1225.0	1002.4	913.5	907.0	1053.9	342.2	133.8	148.0
87.5°	979.3	1117.5	1231.5	894.9	687.7	606.4	667.9	966.1	108.5	73.5	44.9
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2495.0	2495.0	2495.0	2495.0	2495.0	2495.0	2495.0	2495.0	2495.0	2495.0	2495.0
2.5°	2446.7	2443.4	2427.0	2401.7	2383.1	2370.9	2348.0	2346.8	2349.1	2329.3	2337.0
5°	2377.5	2364.3	2321.6	2263.5	2216.4	2171.5	2122.1	2105.5	2091.3	2061.7	2065.1
7.5°	2305.2	2282.1	2207.6	2112.2	2021.1	1937.9	1855.5	1814.9	1784.3	1745.9	1745.9
10°	2262.4	2226.2	2112.2	1972.9	1828.1	1706.4	1583.6	1510.1	1456.4	1407.0	1403.7
12.5°	2260.2	2205.3	2046.3	1854.6	1655.9	1484.9	1317.0	1204.2	1124.0	1066.0	1060.4
15°	2277.8	2200.9	1991.5	1743.7	1493.6	1271.0	1063.8	920.1	818.0	753.4	746.9
17.5°	2293.2	2195.5	1932.3	1627.5	1335.7	1064.9	834.5	685.3	588.8	536.3	530.8
20°	2307.3	2183.5	1856.6	1504.7	1161.4	871.9	652.4	531.8	468.2	438.6	435.4
22.5°	2328.2	2172.6	1777.7	1366.4	990.3	709.5	538.4	451.8	417.8	403.6	401.5
25°	2362.3	2173.5	1700.9	1225.0	833.4	591.2	466.1	412.3	393.6	383.8	383.8
27.5°	2411.6	2186.7	1625.3	1081.3	700.8	510.0	423.3	391.5	379.4	371.8	369.6
30°	2484.0	2210.9	1545.3	945.3	595.4	454.1	398.0	378.4	368.5	361.8	360.8
32.5°	2589.3	2253.7	1460.7	821.4	515.4	414.6	379.4	367.3	359.7	354.2	353.2
35°	2746.1	2329.3	1378.4	716.0	458.5	386.0	364.2	354.2	349.8	347.6	346.6
37.5°	2976.4	2451.0	1300.7	633.8	421.1	367.3	348.7	343.2	341.0	341.0	341.0
40°	3265.9	2611.2	1230.5	575.8	400.3	353.2	337.8	333.5	333.5	334.4	334.4
42.5°	3618.0	2811.9	1170.1	536.3	388.2	343.2	330.0	327.9	326.9	326.9	327.9
45°	4026.9	3048.8	1132.9	505.6	379.4	337.8	324.6	323.5	319.2	316.9	316.9
47.5°	4438.2	3302.1	1130.6	488.0	368.5	331.1	319.2	319.2	310.4	306.0	307.1
50°	4822.0	3529.1	1154.9	483.6	361.8	321.4	313.7	314.8	302.6	297.2	296.1
52.5°	5131.3	3702.4	1184.3	489.0	361.8	312.5	303.7	309.2	296.1	289.6	288.4
55°	5370.3	3822.9	1195.4	501.2	366.2	304.9	295.1	303.7	293.9	285.1	285.1
57.5°	5541.5	3861.4	1148.3	506.6	372.8	303.7	286.2	302.6	297.2	286.2	286.2
60°	5478.9	3638.8	972.8	485.9	371.8	301.7	279.6	304.9	308.2	296.1	296.1
62.5°	4991.0	3044.4	780.8	438.6	353.2	293.9	271.9	302.6	315.8	311.4	309.2
65°	4063.2	2232.7	605.4	382.8	321.4	277.4	255.5	283.0	298.2	302.6	303.7
67.5°	2863.3	1413.7	470.4	325.7	281.9	253.3	236.9	250.1	255.5	257.8	262.0
70°	1566.0	765.4	374.0	274.2	241.3	229.2	217.1	218.3	216.0	213.8	216.0
72°	786.2	500.0	315.8	238.1	213.8	206.3	200.7	197.4	197.4	194.2	195.2
72.5°	676.7	465.1	304.9	229.2	207.2	200.7	196.3	193.0	191.9	189.7	190.8
75°	450.7	368.5	254.4	191.9	176.5	172.1	174.5	171.0	172.1	170.0	171.0
77.5°	364.2	316.9	216.0	162.4	151.4	144.7	149.2	150.2	152.4	150.2	149.2
80°	304.9	269.9	181.0	133.8	126.1	120.6	122.8	130.6	131.6	125.0	124.0
82.5°	197.4	217.1	142.7	104.2	96.5	94.3	99.8	107.4	109.7	100.9	98.8
85°	165.6	174.5	103.0	71.2	63.6	61.4	72.4	80.0	85.6	76.7	74.6
87.5°	46.1	85.6	50.5	34.0	28.6	28.6	35.2	41.7	49.3	50.5	50.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)