

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: LUMARK

Report Number: P969490

Luminaire Tested: **NAV-SB5D-835-U-SL4**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969490
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-835-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 48443.5 lumens
Efficiency: N/A
Efficacy: 132.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B4 - U0 - G5

Input Watts (W): 364.9
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: 24 FT

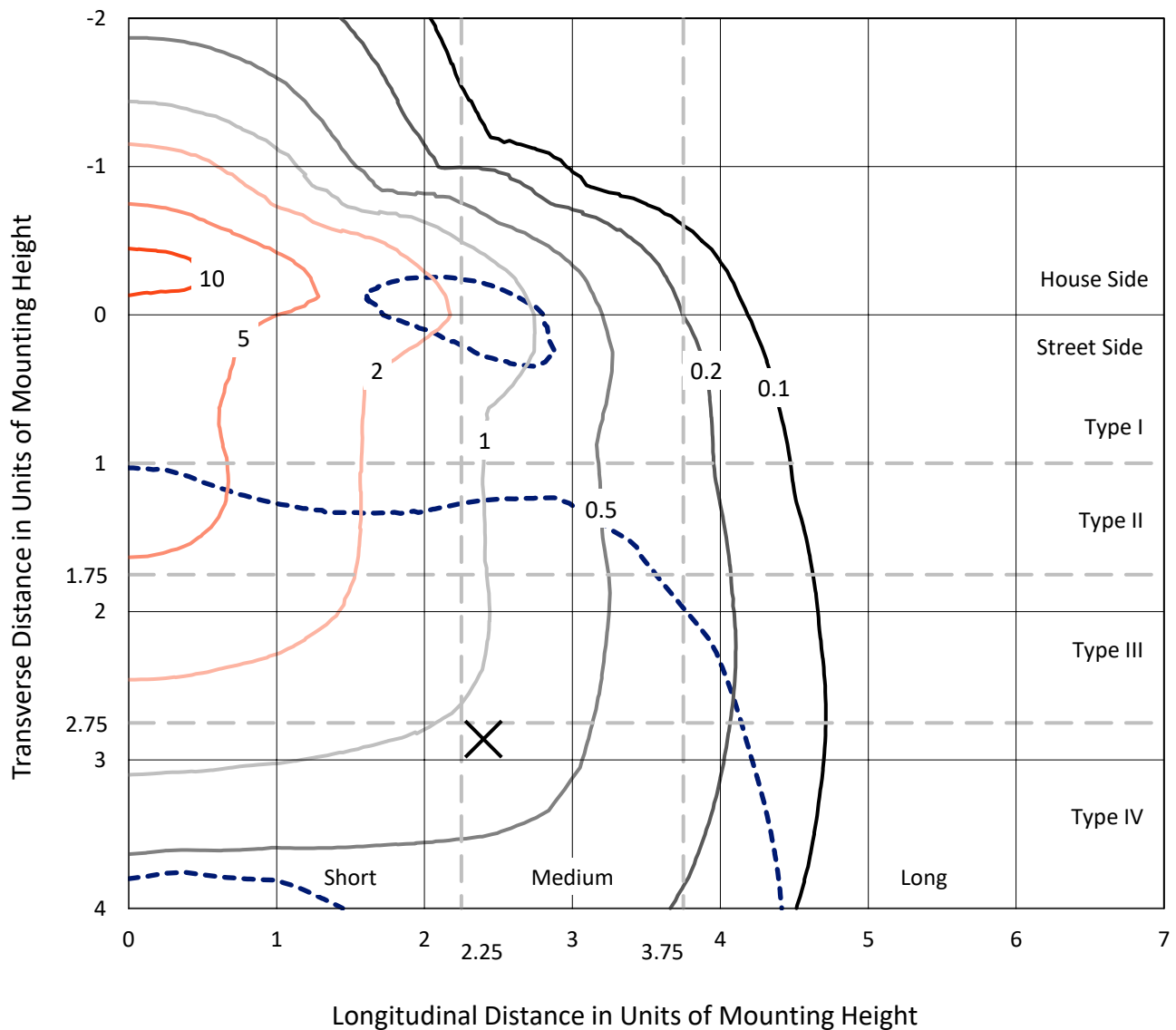


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Iso-Footcandle Lines of Horizontal Illumination

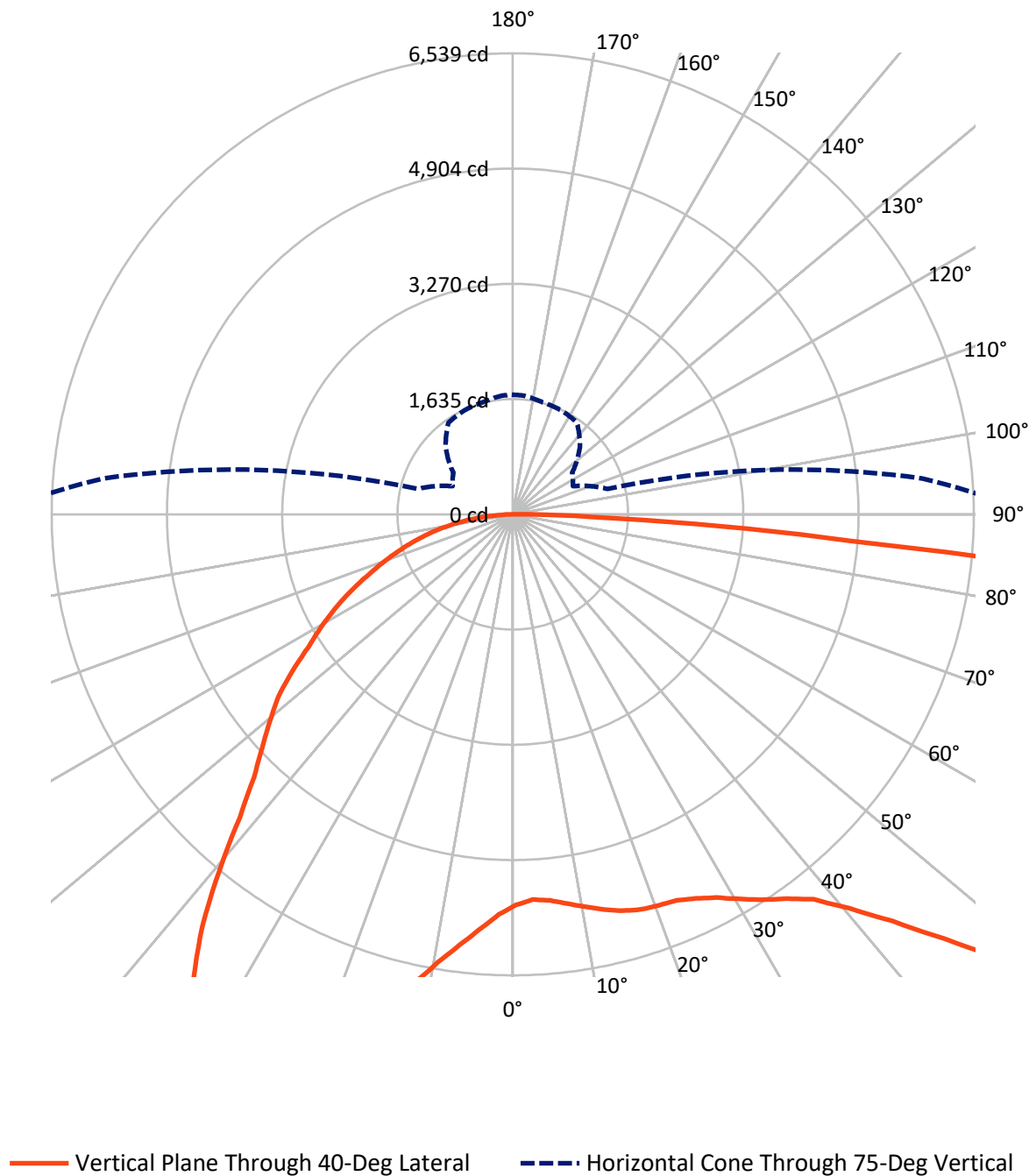
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.4 fc
Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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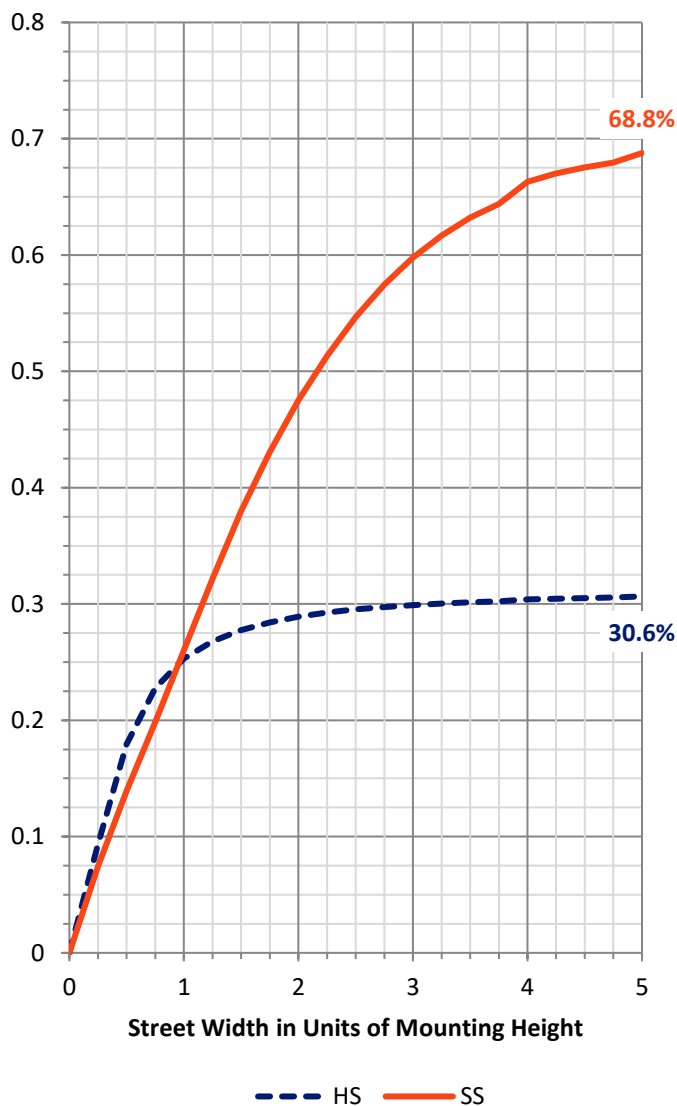
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	15009.4	0.0	15009.4
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	33434.1	0.0	33434.1
	% Fixture	69.0	0.0	69.0
Total	Lumens	48443.5	0.0	48443.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	553.0	1.1
10°-20°	1856.5	3.8
20°-30°	3389.9	7.0
30°-40°	4807.8	9.9
40°-50°	6491.9	13.4
50°-60°	8733.4	18.0
60°-70°	11084.7	22.9
70°-80°	10060.0	20.8
80°-90°	1466.4	3.0
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°	48443.5	100.0
0°-180°	48443.5	100.0

Coefficient of Utilization



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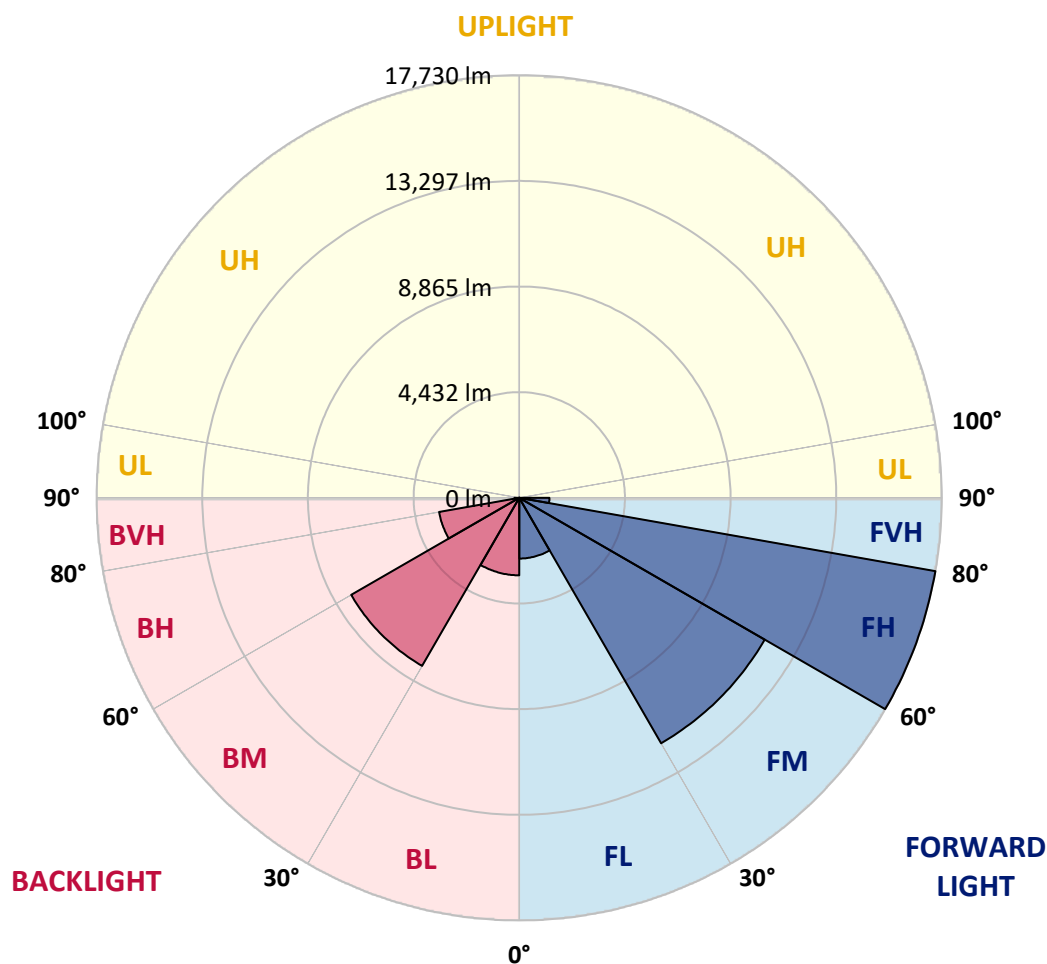
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2548.2	5.3			
FM	(30°-60°)	11891.8	24.5			
FH	(60°-80°)	17729.6	36.6			G5
FVH	(80°-90°)	1264.5	2.6			G5
BL	(0°-30°)	3251.2	6.7	B4/5000		
BM	(30°-60°)	8141.3	16.8	B4/8500		
BH	(60°-80°)	3415.1	7.0	B4/5000		G4/5000
BVH	(80°-90°)	201.9	0.4			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	5539.6	5539.6	5539.6	5539.6	5539.6	5539.6	5539.6	5539.6	5539.6	5539.6	5539.6
2.5°	5454.8	5485.6	5477.9	5467.7	5467.7	5470.2	5467.7	5485.6	5503.6	5521.6	5549.9
5°	5511.3	5542.2	5526.7	5513.9	5503.6	5501.1	5493.4	5490.7	5501.1	5524.1	5562.7
7.5°	5621.8	5652.7	5629.5	5606.3	5585.8	5575.6	5565.2	5549.9	5542.2	5555.0	5609.0
10°	5745.1	5776.0	5747.7	5706.6	5673.2	5660.4	5650.1	5634.6	5624.4	5632.1	5691.2
12.5°	5868.4	5899.3	5860.7	5804.3	5760.5	5752.8	5740.0	5734.9	5732.3	5729.7	5788.8
15°	5984.1	6009.8	5961.0	5894.2	5847.9	5835.0	5822.2	5829.9	5842.8	5858.2	5925.0
17.5°	6074.0	6099.7	6027.7	5940.4	5896.7	5891.6	5883.9	5909.5	5945.5	5984.1	6066.3
20°	6156.3	6182.0	6089.4	5971.2	5919.9	5919.9	5922.4	5976.4	6027.7	6084.3	6197.4
22.5°	6271.9	6292.4	6179.3	6017.5	5943.0	5948.1	5968.7	6022.6	6086.9	6163.9	6320.7
25°	6444.0	6459.4	6320.7	6104.8	6020.0	6035.5	6053.4	6079.2	6140.8	6230.8	6441.4
27.5°	6721.5	6734.4	6551.9	6259.1	6130.5	6156.3	6182.0	6163.9	6192.2	6269.3	6539.1
30°	7112.1	7119.8	6888.5	6500.5	6318.1	6330.9	6336.1	6261.6	6207.6	6269.3	6608.5
32.5°	7574.5	7572.0	7297.1	6793.4	6531.4	6518.5	6474.8	6328.3	6202.5	6256.4	6670.1
35°	8291.4	8263.1	7908.6	7204.5	6772.9	6693.2	6590.4	6402.9	6228.2	6243.6	6724.1
37.5°	9478.5	9391.0	8900.4	7877.7	7132.6	6929.6	6778.0	6523.6	6284.7	6238.5	6788.3
40°	10817.1	10706.6	10167.1	8800.1	7672.1	7345.9	7101.8	6695.8	6377.2	6261.6	6883.4
42.5°	12405.0	12248.2	11667.6	9886.9	8355.6	7882.9	7515.4	6914.2	6513.4	6336.1	7011.8
45°	14355.1	14147.0	13324.8	11112.5	9216.4	8586.8	8096.2	7245.6	6721.5	6479.9	7204.5
47.5°	16325.9	16377.2	15208.1	12515.5	10249.3	9455.3	8823.3	7744.1	7024.7	6711.2	7515.4
50°	18419.9	18455.8	17081.2	14070.0	11420.9	10436.9	9640.3	8301.7	7446.1	7040.1	7980.4
52.5°	20054.0	20059.1	18782.2	15696.3	12641.3	11516.0	10521.6	8938.9	7934.2	7476.9	8599.8
55°	21076.7	21063.7	19974.4	17235.4	14044.2	12649.0	11497.9	9663.4	8530.4	7990.8	9378.2
57.5°	21819.2	21780.6	20796.5	18558.6	15539.6	13987.7	12602.8	10485.6	9234.3	8602.3	10403.4
60°	22101.8	22078.7	21354.1	19702.0	17112.1	15467.7	13877.3	11405.5	10033.4	9324.3	11721.5
62.5°	22209.7	22253.4	21901.4	20809.4	18795.0	17106.9	15277.5	12505.2	10932.8	10141.3	13111.6
65°	22590.0	22669.6	22597.7	22258.6	20696.4	19026.3	17135.2	13813.0	11914.2	11017.5	14563.2
67.5°	23342.8	23422.5	23453.3	23992.9	23019.0	21418.4	19452.8	15441.9	13062.7	11927.1	15655.2
70°	23324.8	23301.7	23846.4	25372.6	25927.6	24730.3	22577.2	17446.1	14432.2	12682.4	15794.0
72.5°	21230.8	21045.8	22333.0	25357.2	28348.0	28188.6	26392.7	20030.9	15614.1	12775.0	13705.1
75°	15927.6	15434.2	17708.2	22852.1	28751.4	30151.7	28818.2	21634.2	15334.1	11287.3	9537.5
77.5°	6811.4	6315.5	8995.4	16916.8	25732.3	28186.1	26593.1	18874.7	12240.6	7464.0	4683.9
80°	1783.2	1780.6	2718.4	7669.6	17500.0	20814.6	18260.6	12189.1	6993.9	2667.0	1292.4
82.5°	737.4	719.4	999.5	2983.1	8550.9	11680.4	9532.4	5436.8	2525.7	722.0	429.1
85°	274.9	272.3	485.6	1030.3	3016.5	4817.6	3486.6	1390.0	629.5	352.0	192.7
87.5°	77.1	74.5	105.4	357.1	734.8	1115.1	596.1	228.7	177.3	138.8	56.5
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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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5539.6	5539.6	5539.6	5539.6	5539.6	5539.6	5539.6	5539.6	5539.6	5539.6	5539.6
2.5°	5557.5	5570.5	5593.5	5611.6	5634.6	5660.4	5696.3	5719.4	5742.6	5757.9	5747.7
5°	5580.7	5609.0	5668.0	5727.2	5796.5	5860.7	5935.3	5989.2	6032.9	6045.8	6050.9
7.5°	5632.1	5678.3	5778.5	5878.8	5989.2	6094.5	6202.5	6294.9	6369.5	6397.7	6400.3
10°	5722.0	5783.7	5925.0	6066.3	6212.7	6374.7	6513.4	6647.0	6752.3	6796.1	6798.6
12.5°	5835.0	5912.1	6097.1	6292.4	6495.4	6719.0	6898.8	7063.3	7194.3	7253.4	7253.4
15°	5981.5	6081.7	6318.1	6580.2	6878.3	7189.1	7417.8	7600.3	7746.6	7818.6	7813.5
17.5°	6140.8	6274.4	6572.5	6968.2	7394.7	7803.2	8070.4	8204.0	8355.6	8425.0	8422.4
20°	6294.9	6459.4	6886.0	7461.5	8029.3	8463.5	8679.4	8715.4	8725.6	8733.3	8753.9
22.5°	6454.3	6675.2	7279.0	8083.3	8692.2	8992.8	9023.7	8869.5	8653.7	8553.4	8581.7
25°	6629.0	6921.9	7793.0	8769.3	9262.6	9298.6	9062.2	8687.1	8278.5	8090.9	8119.2
27.5°	6798.6	7207.1	8409.6	9424.5	9673.7	9357.6	8848.9	8317.1	7823.7	7625.9	7649.1
30°	6968.2	7533.4	9090.4	9997.4	9861.3	9211.3	8512.3	7918.8	7422.9	7214.8	7237.9
32.5°	7140.4	7913.7	9874.1	10411.1	9827.9	8900.4	8093.5	7471.7	7035.0	6816.6	6844.8
35°	7335.6	8381.3	10616.6	10637.2	9604.4	8443.0	7541.1	6937.3	6557.0	6382.4	6420.9
37.5°	7589.9	8974.8	11271.8	10693.7	9213.8	7772.4	6855.1	6305.3	5991.8	5912.1	5968.7
40°	7906.0	9689.1	11772.9	10603.8	8635.7	6957.9	6104.8	5665.5	5488.2	5506.2	5567.8
42.5°	8317.1	10488.2	12124.9	10372.6	7831.5	6117.7	5447.1	5251.8	5336.6	5408.5	5475.3
45°	8851.5	11318.2	12343.3	9979.5	6921.9	5406.0	5059.1	5105.3	5169.6	5177.3	5228.7
47.5°	9535.0	12158.3	12487.2	9385.9	5994.4	4904.9	4812.5	4822.7	4809.9	4755.9	4797.0
50°	10388.0	12975.4	12615.7	8599.8	5205.6	4591.5	4468.2	4432.2	4254.9	4080.2	4103.3
52.5°	11359.3	13725.7	12669.6	7623.3	4591.5	4329.4	4129.0	3902.9	3571.4	3517.5	3535.4
55°	12438.4	14419.4	12530.8	6423.5	4075.0	3992.8	3689.6	3417.2	3381.3	3335.0	3342.7
57.5°	13728.2	15167.0	12248.2	5084.8	3545.8	3599.7	3304.2	3335.0	3270.8	3198.9	3186.0
60°	15138.8	15940.4	11752.3	3864.4	2998.4	3108.9	3204.0	3201.5	3183.4	3124.4	3103.8
62.5°	16408.1	16449.2	10776.0	2959.9	2518.0	2728.7	2988.2	2985.6	2970.2	2936.8	2923.9
65°	17163.4	16372.1	9147.0	2330.4	2122.3	2415.2	2695.2	2715.8	2718.4	2715.8	2715.8
67.5°	17029.9	15470.2	6911.7	1855.0	1796.0	2096.6	2405.0	2433.2	2453.7	2458.9	2464.0
70°	15519.0	13489.2	4506.7	1480.0	1505.6	1816.5	2130.1	2158.2	2176.3	2196.8	2207.1
72.5°	12096.6	9917.8	2579.6	1197.3	1251.3	1575.0	1857.7	1891.0	1901.4	1939.9	1955.3
75°	7371.6	5832.5	1392.6	943.0	1027.8	1346.3	1587.8	1626.4	1644.4	1690.6	1695.8
77.5°	3504.7	2525.7	794.0	734.8	827.4	1099.7	1341.2	1384.9	1336.1	1361.8	1341.2
80°	1184.5	937.9	501.0	560.2	632.1	858.1	1074.0	1117.7	1015.0	1009.7	999.5
82.5°	413.7	380.3	318.6	372.6	408.6	614.1	811.9	868.5	755.4	752.9	716.9
85°	161.8	154.2	177.3	203.0	244.1	377.7	534.4	562.7	465.0	375.2	370.0
87.5°	33.4	36.0	43.7	46.2	74.5	131.0	192.7	236.4	187.6	159.3	146.5
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)