

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: P969478

Luminaire Tested: **NAV-SB5D-830-U-T4W**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969478
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-1)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-830-U-T4W
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 47251.5 lumens
Efficiency: N/A
Efficacy: 129.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U0 - G5

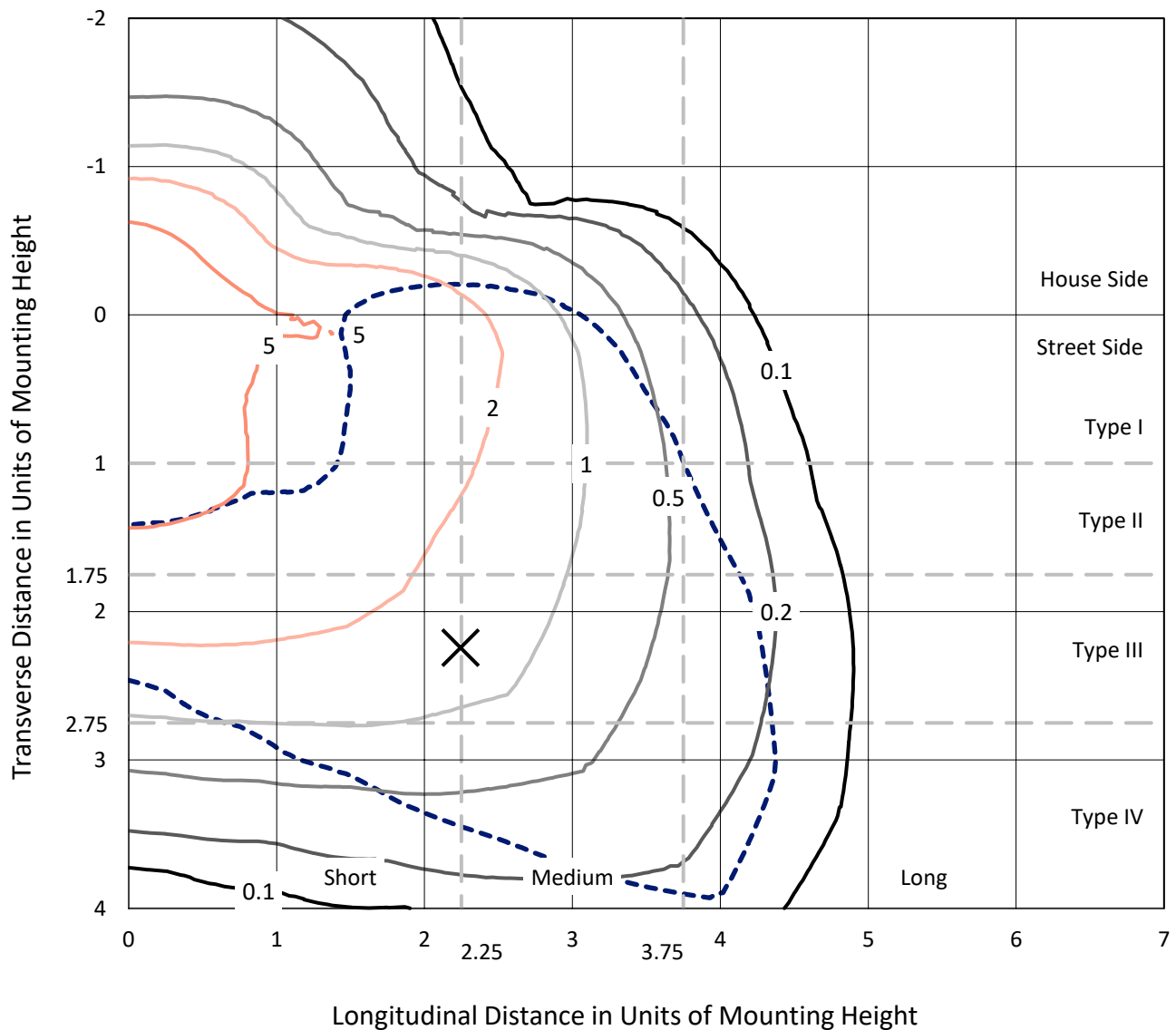
Input Watts (W): 364.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

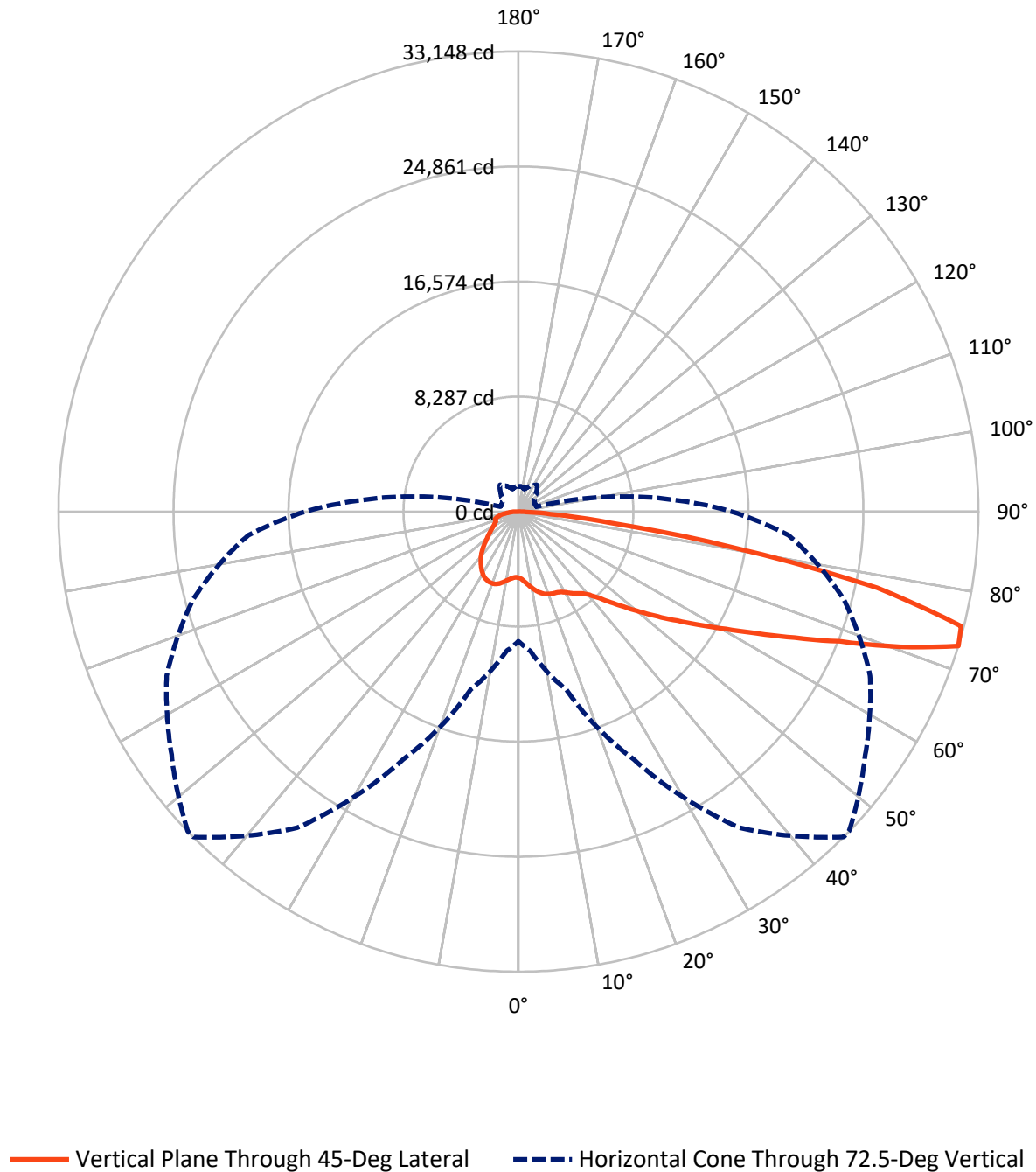
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.5 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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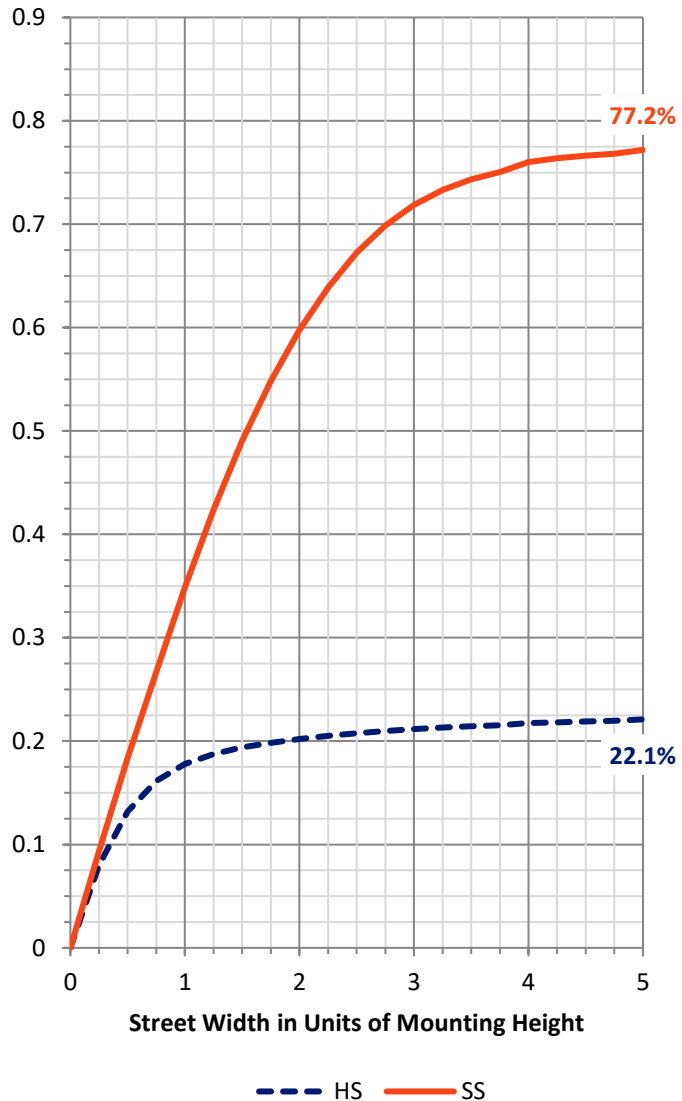
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10681.9	0.0	10681.9
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	36569.5	0.0	36569.5
	% Fixture	77.4	0.0	77.4
Total	Lumens	47251.5	0.0	47251.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	485.2	1.0
10°-20°	1617.6	3.4
20°-30°	2813.9	6.0
30°-40°	4033.9	8.5
40°-50°	5679.9	12.0
50°-60°	8700.0	18.4
60°-70°	12603.2	26.7
70°-80°	10064.4	21.3
80°-90°	1253.5	2.7
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°	47251.5	100.0
0°-180°	47251.5	100.0

Coefficient of Utilization



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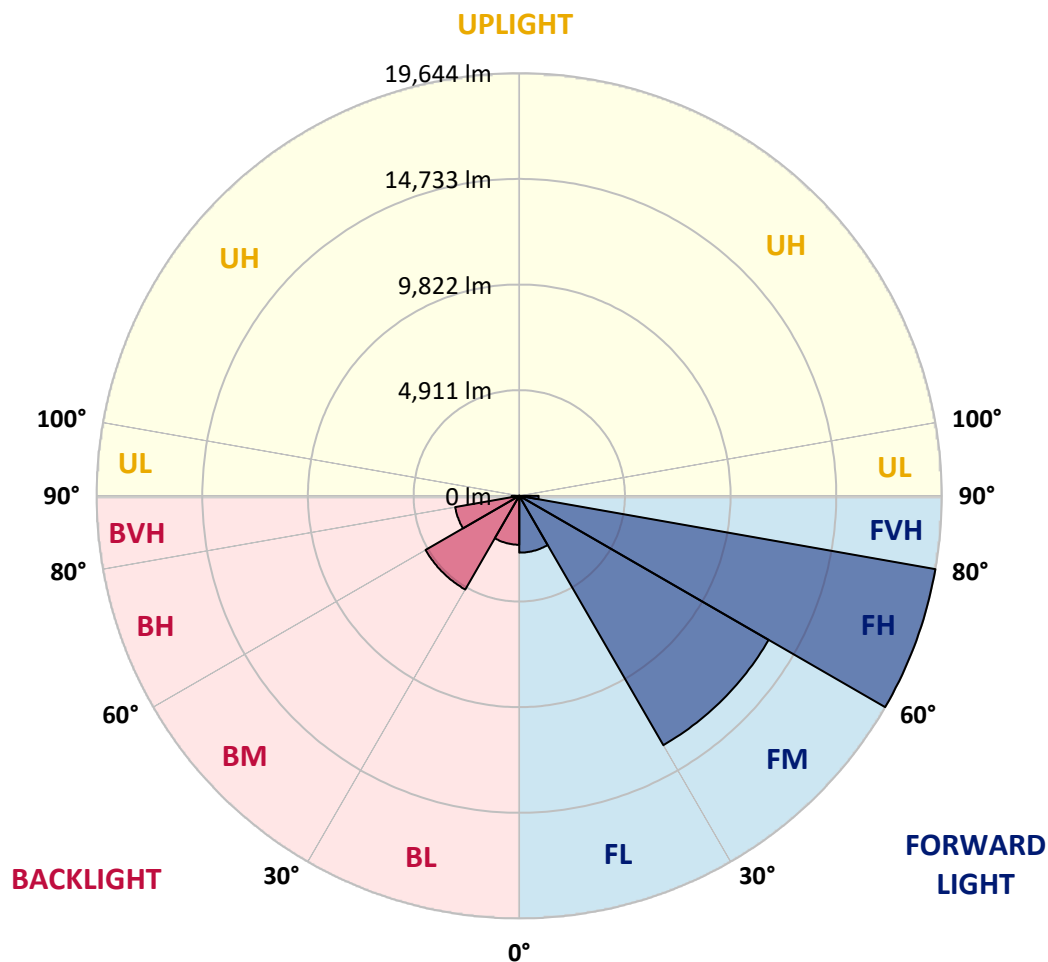
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2642.4	5.6			
FM	(30°-60°)	13384.1	28.3			
FH	(60°-80°)	19643.8	41.6			G5
FVH	(80°-90°)	899.3	1.9			G5
BL	(0°-30°)	2274.3	4.8	B3/2500		
BM	(30°-60°)	5029.7	10.6	B4/8500		
BH	(60°-80°)	3023.8	6.4	B4/5000		G4/5000
BVH	(80°-90°)	354.2	0.7			G3/500
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 Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	4766.8	4766.8	4766.8	4766.8	4766.8	4766.8	4766.8	4766.8	4766.8	4766.8	4766.8
2.5°	4953.4	4985.8	4956.0	4928.5	4916.1	4883.7	4881.3	4861.4	4848.9	4814.0	4804.1
5°	5299.5	5341.8	5292.0	5237.2	5187.4	5107.8	5097.8	5040.5	4975.9	4901.1	4858.8
7.5°	5690.2	5727.6	5670.3	5588.2	5501.1	5369.2	5366.6	5262.1	5160.1	5033.1	4960.9
10°	6031.2	6081.0	6003.8	5891.9	5782.3	5633.0	5615.6	5496.0	5366.6	5202.4	5092.8
12.5°	6332.4	6367.3	6292.6	6155.7	6028.7	5879.4	5857.1	5725.0	5580.7	5394.1	5254.7
15°	6571.4	6616.2	6516.6	6369.8	6235.4	6088.5	6068.6	5949.1	5804.8	5608.1	5428.9
17.5°	6728.2	6765.5	6663.5	6499.2	6369.8	6247.8	6232.9	6133.3	6006.4	5807.2	5615.6
20°	6788.0	6827.8	6720.7	6554.0	6434.5	6339.9	6332.4	6260.3	6173.2	5991.4	5797.3
22.5°	6847.7	6885.0	6745.6	6571.4	6466.8	6407.1	6404.6	6357.4	6322.5	6173.2	5984.0
25°	7089.1	7099.2	6912.4	6661.0	6511.6	6459.3	6456.9	6454.4	6469.4	6352.3	6185.6
27.5°	7298.2	7295.7	7136.5	6900.0	6668.4	6559.0	6556.5	6581.3	6628.7	6531.6	6394.7
30°	7604.4	7577.0	7387.9	7141.4	6929.8	6760.6	6745.6	6723.3	6760.6	6683.4	6603.8
32.5°	8254.1	8167.0	7860.8	7422.7	7146.4	7016.9	6997.1	6857.7	6872.6	6825.3	6785.5
35°	9185.0	9070.5	8662.3	7955.3	7415.3	7231.1	7221.0	7044.3	7014.5	6972.2	6987.1
37.5°	10292.7	10150.8	9675.4	8727.1	7878.3	7479.9	7465.0	7305.7	7183.7	7138.9	7223.6
40°	11405.4	11226.1	10832.8	9667.9	8560.3	7895.7	7848.3	7606.9	7467.5	7392.8	7572.1
42.5°	12485.6	12336.3	12000.3	10723.3	9401.6	8503.0	8398.4	7985.3	7880.7	7811.0	8134.6
45°	13441.5	13307.1	13060.7	11850.9	10387.2	9329.4	9227.4	8552.8	8520.4	8520.4	8988.4
47.5°	14218.1	14188.3	13926.9	13000.9	11549.7	10270.3	10093.6	9341.8	9429.0	9563.4	10200.6
50°	15079.4	14997.2	14718.5	14133.5	12916.3	11348.1	11203.8	10310.2	10636.2	11004.6	11952.9
52.5°	15870.9	15915.7	15604.6	15313.4	14459.6	12550.4	12296.5	11452.6	12157.1	12766.9	14006.5
55°	16684.8	16687.4	16600.3	16560.4	16077.5	13879.6	13600.8	12826.6	13946.8	14703.5	16401.1
57.5°	17449.1	17454.0	17583.5	17934.4	17954.3	15412.9	15096.8	14514.3	15935.7	16707.3	18870.4
60°	18131.1	18166.0	18519.4	19340.8	19604.7	17170.3	16871.6	16508.1	17991.7	18768.4	21466.6
62.5°	18360.1	18487.0	19273.6	20441.1	21235.1	19325.9	19032.2	18815.6	20152.3	20874.1	23637.1
65°	17971.7	18263.0	19783.9	21349.6	22912.7	21887.2	21596.0	21359.6	22397.5	23077.1	25419.4
67.5°	17018.4	17394.2	19754.0	22303.0	24948.9	24968.8	24697.5	24142.4	24804.6	25065.9	25999.3
70°	14506.8	15069.4	18014.1	22658.9	27286.2	29183.0	28921.6	27492.9	27206.6	25942.1	24366.4
72.5°	9346.8	10103.5	13264.7	19729.1	27806.5	33148.2	33133.3	30517.2	27965.8	24239.5	19542.4
75°	3410.2	3873.2	6163.2	12383.6	23340.9	32946.6	33043.6	29999.4	25528.9	18723.5	12174.5
77.5°	1242.1	1359.0	2011.3	4759.3	14355.0	26435.0	26636.6	23983.2	18170.9	9396.6	4824.0
80°	652.2	716.9	1030.5	1846.9	6150.7	15699.2	16015.3	14252.9	8540.3	2830.2	1446.2
82.5°	360.9	390.8	577.5	1003.2	2770.5	6713.2	6902.5	5630.5	3004.4	1199.8	597.4
85°	194.1	206.6	271.3	547.7	1354.1	2327.4	2379.6	1682.6	1197.3	704.5	288.7
87.5°	57.3	69.7	89.6	174.2	530.2	522.8	535.2	333.5	472.9	356.0	94.6
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°	4766.8	4766.8	4766.8	4766.8	4766.8	4766.8	4766.8	4766.8	4766.8	4766.8	4766.8
2.5°	4789.1	4781.7	4754.3	4741.9	4726.9	4724.4	4736.9	4739.4	4741.9	4744.3	4754.3
5°	4834.0	4809.1	4784.2	4769.2	4774.2	4776.7	4801.6	4819.0	4831.4	4841.4	4846.4
7.5°	4921.1	4901.1	4858.8	4856.3	4863.8	4886.3	4918.6	4958.4	4980.8	4998.2	5003.2
10°	5050.5	5013.2	4963.4	4970.8	4985.8	5018.2	5085.3	5117.7	5155.0	5187.4	5179.9
12.5°	5182.4	5150.1	5092.8	5097.8	5122.7	5179.9	5244.7	5284.5	5309.4	5334.3	5344.2
15°	5354.2	5297.0	5234.7	5234.7	5279.6	5341.8	5371.6	5404.0	5418.9	5446.3	5456.3
17.5°	5530.9	5456.3	5374.1	5369.2	5423.9	5453.7	5471.1	5476.2	5481.2	5511.0	5521.0
20°	5707.6	5625.5	5508.6	5498.6	5511.0	5506.0	5503.5	5498.6	5506.0	5543.4	5558.3
22.5°	5881.9	5787.4	5625.5	5580.7	5545.9	5498.6	5496.0	5493.6	5498.6	5535.9	5560.8
25°	6086.0	5971.5	5755.0	5620.6	5503.5	5438.9	5446.3	5448.8	5453.7	5483.6	5523.4
27.5°	6307.5	6180.6	5874.5	5608.1	5396.5	5351.7	5339.2	5346.7	5364.1	5411.5	5458.7
30°	6529.0	6379.7	5984.0	5558.3	5262.1	5199.8	5160.1	5177.5	5232.2	5279.6	5331.8
32.5°	6730.7	6581.3	6071.1	5448.8	5090.4	4993.3	4941.0	4963.4	5018.2	5035.6	5097.8
35°	6967.1	6797.9	6108.4	5274.5	4903.7	4754.3	4684.7	4652.3	4679.6	4662.2	4716.9
37.5°	7231.1	7054.3	6103.5	5045.6	4684.7	4512.9	4415.8	4293.8	4236.5	4176.8	4214.2
40°	7621.8	7367.9	6043.7	4769.2	4413.3	4256.5	4082.3	3875.6	3746.2	3629.2	3636.7
42.5°	8154.5	7803.5	5934.1	4465.5	4107.2	3960.3	3723.8	3482.3	3278.3	3084.1	3066.7
45°	8948.6	8373.5	5797.3	4141.9	3776.1	3631.7	3375.3	3104.0	2872.5	2623.6	2593.8
47.5°	10093.6	9140.2	5667.8	3773.5	3427.6	3295.7	3064.1	2812.8	2538.9	2297.5	2270.2
50°	11666.8	10240.5	5548.3	3415.1	3084.1	2984.5	2800.3	2543.9	2267.6	2073.5	2061.1
52.5°	13668.0	11736.5	5498.6	3069.2	2763.0	2725.7	2578.8	2339.8	2078.5	1914.2	1901.7
55°	15965.5	13526.1	5498.6	2738.1	2481.7	2494.1	2392.0	2170.5	1944.0	1797.1	1782.3
57.5°	18310.3	15338.2	5399.0	2431.9	2242.7	2295.0	2230.3	2036.2	1832.0	1680.2	1655.3
60°	20470.9	16856.6	4995.7	2153.1	2031.1	2113.3	2071.0	1904.2	1655.3	1528.4	1508.4
62.5°	22131.2	17712.9	4219.1	1931.6	1856.9	1951.5	1929.2	1730.0	1623.0	1570.7	1553.3
65°	22962.6	17573.5	3226.0	1734.9	1710.0	1856.9	1809.6	1802.2	1717.5	1657.8	1637.8
67.5°	22452.3	16373.8	2339.8	1590.6	1625.4	1769.8	1951.5	1981.4	1824.6	1707.5	1687.7
70°	20214.5	14203.2	1742.4	1453.7	1518.4	1772.3	2225.3	2073.5	1789.8	1652.8	1630.4
72.5°	15378.1	10591.4	1351.7	1309.3	1379.0	1784.7	2347.2	2031.1	1690.1	1827.1	1812.1
75°	8794.2	5814.7	1085.3	1132.5	1204.8	1667.8	2285.0	1921.7	1612.9	1677.7	1677.7
77.5°	3352.9	2235.3	896.1	958.4	968.3	1456.1	2185.5	1914.2	1535.9	1498.4	1366.5
80°	1162.5	873.7	741.8	761.7	749.3	1294.4	2095.9	1665.2	1257.1	1125.1	1087.7
82.5°	475.4	435.6	587.4	562.5	532.7	1005.6	1692.6	1361.6	1028.1	908.6	898.6
85°	206.6	276.3	388.3	341.0	308.6	697.0	1356.6	1152.5	868.7	749.3	746.7
87.5°	42.3	104.6	164.3	154.4	159.3	465.5	963.3	819.0	614.8	460.5	360.9
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)