

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: P969508

Luminaire Tested: **NAV-SB5D-835-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969508
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-835-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37644.1 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G5

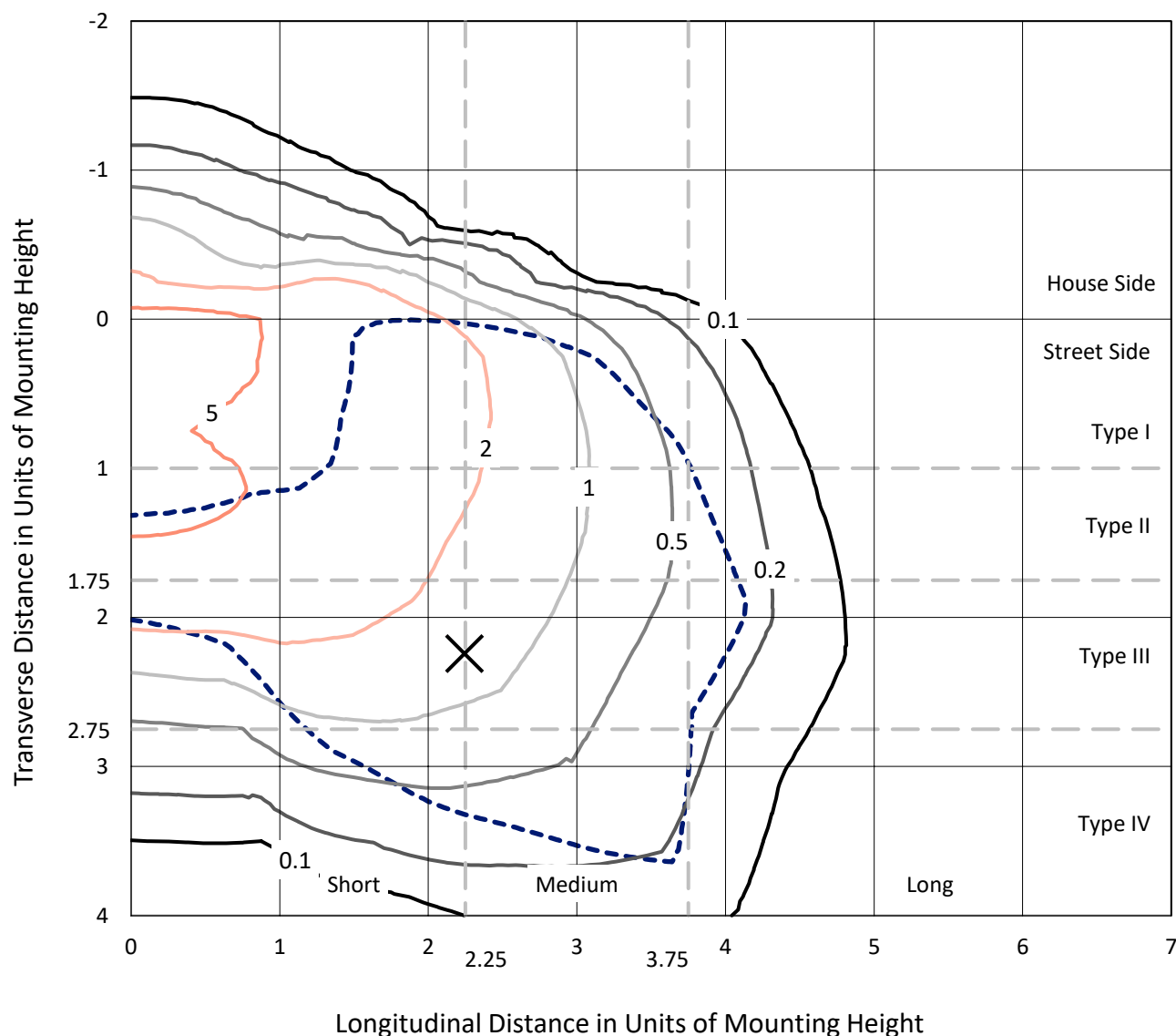
Input Watts (W): 364.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

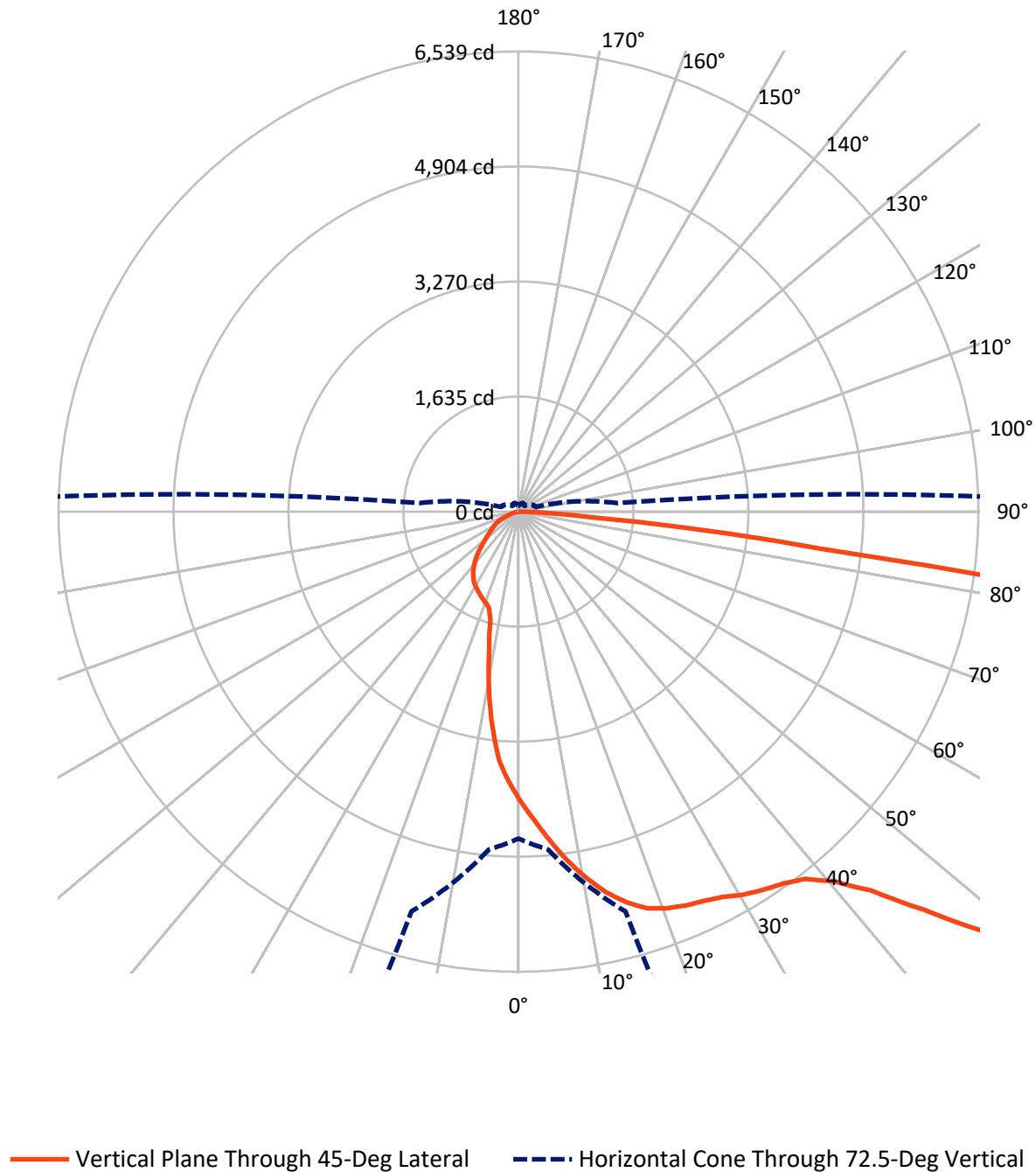
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.1 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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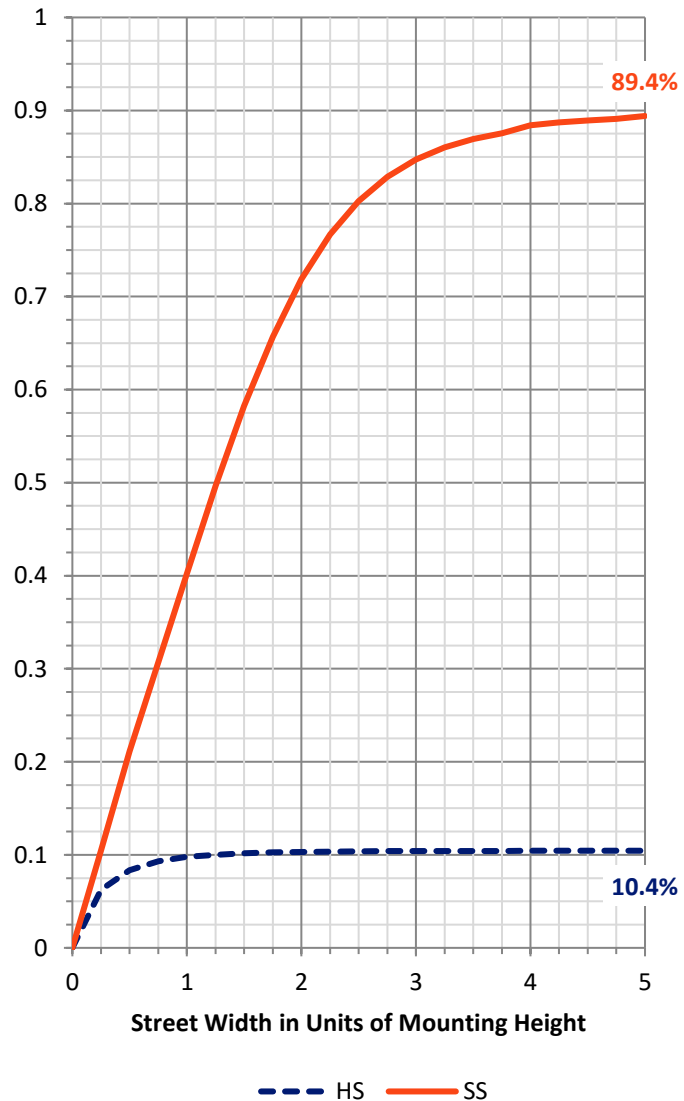
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3955.4	0.0	3955.4
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	33688.8	0.0	33688.8
	% Fixture	89.5	0.0	89.5
Total	Lumens	37644.1	0.0	37644.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	388.6	1.0
10°-20°	1135.6	3.0
20°-30°	1864.8	5.0
30°-40°	2644.8	7.0
40°-50°	4371.5	11.6
50°-60°	7853.0	20.9
60°-70°	10904.3	29.0
70°-80°	7909.6	21.0
80°-90°	571.8	1.5
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°	37644.1	100.0
0°-180°	37644.1	100.0

Coefficient of Utilization



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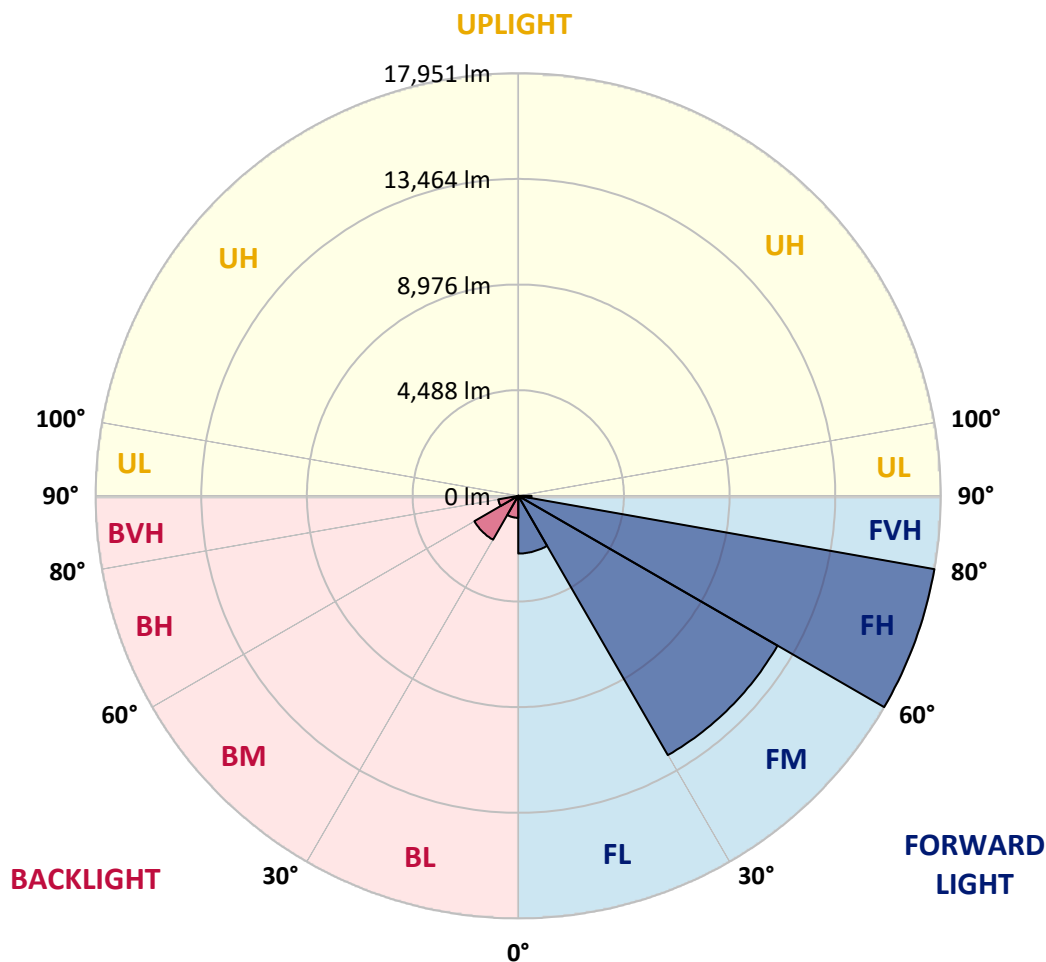
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2452.1	6.5			
FM	(30°-60°)	12718.2	33.8			
FH	(60°-80°)	17951.4	47.7			G5
FVH	(80°-90°)	567.0	1.5			G4/750
BL	(0°-30°)	936.9	2.5	B2/1000		
BM	(30°-60°)	2151.1	5.7	B2/2500		
BH	(60°-80°)	862.5	2.3	B2/1000		G2/1000
BVH	(80°-90°)	4.8	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	4124.0	4124.0	4124.0	4124.0	4124.0	4124.0	4124.0	4124.0	4124.0	4124.0	4124.0
2.5°	4504.3	4511.9	4506.8	4476.0	4424.6	4396.3	4381.0	4329.6	4296.2	4237.0	4175.3
5°	4918.0	4948.8	4930.8	4869.2	4771.5	4702.1	4681.6	4576.2	4481.2	4370.7	4242.2
7.5°	5357.4	5372.7	5339.3	5259.7	5128.7	5010.5	4992.5	4846.0	4694.4	4524.9	4350.1
10°	5737.6	5755.6	5704.2	5588.6	5439.6	5293.1	5267.4	5105.5	4925.6	4717.6	4494.0
12.5°	6056.2	6074.3	6007.4	5868.6	5704.2	5552.6	5526.9	5357.4	5159.5	4928.2	4650.7
15°	6297.8	6331.2	6241.2	6092.2	5914.9	5763.3	5750.5	5583.5	5390.8	5133.8	4838.3
17.5°	6439.0	6472.5	6387.7	6207.8	6056.2	5927.8	5912.3	5773.6	5593.7	5347.0	5020.8
20°	6462.2	6493.1	6403.1	6246.3	6120.5	6017.7	6010.0	5909.7	5778.7	5542.4	5218.6
22.5°	6392.8	6431.4	6349.2	6223.3	6135.9	6081.9	6071.7	6015.1	5940.6	5740.2	5403.6
25°	6320.9	6351.7	6290.0	6179.6	6133.3	6128.2	6135.9	6125.6	6110.2	5940.6	5619.5
27.5°	6315.7	6349.2	6279.8	6174.4	6148.8	6202.7	6210.4	6259.3	6272.1	6123.0	5827.5
30°	6359.4	6382.6	6315.7	6205.2	6192.4	6315.7	6318.3	6405.6	6426.2	6277.2	6033.2
32.5°	6454.5	6480.2	6413.4	6251.5	6233.5	6405.6	6413.4	6529.0	6562.5	6441.6	6248.9
35°	6678.1	6708.9	6631.7	6380.0	6315.7	6490.5	6513.6	6649.8	6716.6	6616.4	6472.5
37.5°	7235.6	7145.7	7040.3	6639.5	6503.3	6624.1	6662.6	6821.9	6940.2	6824.6	6739.7
40°	8620.6	8338.0	8009.0	7081.4	6832.2	6909.3	6940.2	7099.5	7261.3	7148.2	7107.1
42.5°	10699.3	10365.2	9835.9	8098.9	7328.1	7366.7	7389.8	7528.5	7757.2	7667.3	7677.6
45°	12551.8	12431.1	11891.5	9835.9	8255.7	8065.5	8093.8	8165.8	8502.4	8469.0	8535.8
47.5°	13975.4	13906.0	13489.7	11829.8	9823.1	8921.2	9000.8	9034.2	9519.9	9638.1	9818.0
50°	15070.0	15044.2	14671.6	13602.8	11870.9	10182.8	10211.0	10139.1	10866.3	11159.2	11500.9
52.5°	16102.9	16190.2	15915.3	15249.7	14057.6	11835.0	11829.8	11490.7	12472.2	12914.2	13497.4
55°	17035.6	17066.5	17094.6	16930.2	16257.0	13715.8	13667.0	13112.0	14335.0	14792.4	15424.5
57.5°	17911.8	17924.6	18176.4	18513.0	18546.5	15735.4	15645.5	14980.0	16370.1	16696.4	17084.4
60°	18500.1	18559.3	19091.1	20026.4	20435.0	17819.2	17770.4	17092.1	18441.1	18592.7	18520.7
62.5°	17652.2	18012.0	19353.2	21208.4	22218.2	20129.3	20106.1	19468.8	20620.0	20496.6	19880.0
65°	14288.8	14897.8	17256.6	22007.5	23968.0	22709.0	22742.4	22064.0	22858.0	22457.1	20984.8
67.5°	9995.2	10637.6	13428.0	22071.7	25923.4	25738.4	25931.1	24867.3	25234.8	24335.4	21246.9
70°	6911.9	7243.4	9060.0	20689.3	27447.0	29911.1	29906.0	28310.4	27598.6	25191.1	19910.8
72.5°	4648.2	4820.4	5884.1	16413.7	26326.8	32390.7	32241.7	30941.6	28395.2	23559.4	16267.3
75°	1960.5	2086.4	2723.6	9224.4	20828.1	29633.7	29230.2	27344.2	25229.7	18551.6	10149.4
77.5°	621.8	675.8	1074.0	3301.7	11472.7	22274.7	21848.2	17076.7	16909.6	9306.6	3710.3
80°	295.5	344.3	603.8	1325.8	4514.5	12115.1	12055.9	7746.9	7274.1	2512.9	745.2
82.5°	128.4	151.6	334.0	709.2	2019.6	4321.8	4409.2	2636.3	2181.5	953.2	228.7
85°	41.1	53.9	154.2	326.4	853.1	1074.0	1061.2	627.0	878.7	519.1	79.6
87.5°	0.0	0.0	51.4	74.5	87.3	61.7	69.4	53.9	244.1	143.9	28.3
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°	4124.0	4124.0	4124.0	4124.0	4124.0	4124.0	4124.0	4124.0	4124.0	4124.0	4124.0
2.5°	4144.6	4103.5	4031.5	3964.7	3905.6	3846.5	3810.5	3759.1	3754.0	3754.0	3766.9
5°	4172.8	4106.0	3977.5	3841.4	3684.6	3535.6	3386.6	3242.7	3196.5	3163.0	3178.4
7.5°	4255.1	4149.7	3946.7	3687.2	3389.2	3062.8	2834.1	2587.4	2492.4	2441.0	2448.7
10°	4373.3	4229.4	3921.0	3466.2	2983.2	2538.6	2212.4	1945.0	1842.3	1798.7	1798.7
12.5°	4504.3	4326.9	3874.8	3191.2	2538.6	2006.7	1688.2	1564.8	1549.4	1549.4	1549.4
15°	4661.0	4445.2	3795.1	2867.5	2073.6	1587.9	1474.9	1480.0	1495.5	1505.7	1505.7
17.5°	4822.9	4571.1	3669.2	2505.2	1662.4	1428.6	1431.2	1438.9	1451.7	1462.1	1462.1
20°	4997.6	4697.0	3502.2	2119.8	1426.1	1382.4	1390.1	1397.8	1408.0	1413.2	1415.7
22.5°	5185.2	4815.1	3304.3	1742.1	1346.4	1343.9	1346.4	1354.1	1366.9	1366.9	1372.1
25°	5385.6	4946.2	3078.2	1467.2	1305.3	1305.3	1310.5	1315.6	1325.8	1325.8	1328.4
27.5°	5591.2	5067.0	2839.2	1323.3	1269.4	1266.8	1266.8	1274.5	1279.6	1282.2	1284.7
30°	5817.3	5208.3	2600.3	1292.4	1241.1	1228.2	1220.5	1225.6	1230.8	1233.4	1238.5
32.5°	6048.5	5344.5	2387.0	1305.3	1212.8	1189.6	1164.0	1158.9	1158.9	1169.1	1176.8
35°	6305.5	5493.5	2222.6	1349.0	1197.4	1133.1	1092.0	1068.9	1071.4	1086.9	1094.6
37.5°	6613.8	5673.4	2101.9	1387.5	1187.1	1068.9	1002.1	973.9	955.8	973.9	968.7
40°	7017.3	5938.0	2014.4	1418.4	1174.2	994.4	904.5	858.2	824.8	835.1	829.9
42.5°	7610.7	6354.3	1981.0	1421.0	1145.9	907.0	804.2	742.6	693.7	696.3	686.0
45°	8443.2	7012.1	2153.2	1387.5	1084.3	811.9	698.8	616.6	585.9	578.1	567.8
47.5°	9584.2	7970.5	2551.5	1318.1	994.4	719.4	596.1	526.7	503.6	490.8	483.1
50°	11112.9	9201.2	2993.4	1241.1	904.5	632.1	511.4	467.6	452.2	439.4	436.9
52.5°	12885.9	10450.0	3355.7	1164.0	814.6	555.0	457.4	431.6	418.8	408.6	406.0
55°	14512.4	11310.8	3335.1	1081.8	727.1	493.3	418.8	403.4	388.0	377.7	372.6
57.5°	15524.8	11431.5	2749.4	991.8	627.0	444.5	382.8	372.6	354.5	341.7	339.2
60°	15989.8	10742.9	1927.1	873.6	526.7	398.3	344.3	339.2	316.0	298.1	292.9
62.5°	16074.6	9463.3	1284.7	727.1	439.4	354.5	305.8	298.1	267.2	236.4	221.0
65°	15730.3	7633.9	889.1	567.8	375.2	308.3	262.1	246.7	213.3	182.4	172.2
67.5°	14640.8	5359.9	619.2	408.6	318.6	244.1	208.2	203.0	177.3	151.6	143.9
70°	12644.4	3055.1	413.7	305.8	251.8	167.0	164.4	169.5	143.9	123.3	113.1
72.5°	9694.7	1397.8	257.0	223.6	172.2	113.1	131.0	133.7	110.5	92.5	82.2
75°	5706.8	598.7	161.8	143.9	87.3	74.5	95.1	97.7	74.5	59.1	51.4
77.5°	1942.5	226.1	102.8	84.8	43.7	41.1	61.7	61.7	41.1	23.2	17.9
80°	442.0	84.8	51.4	33.4	20.6	17.9	20.6	17.9	10.2	2.6	0.0
82.5°	125.9	33.4	20.6	12.8	7.7	7.7	2.6	0.0	0.0	0.0	0.0
85°	36.0	15.4	5.1	5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	15.4	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)