

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: P968418

Luminaire Tested: **NAV-SB5B-830-U-T3R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968418
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-830-U-T3R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21811 lumens
Efficiency: N/A
Efficacy: 119.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G4

Input Watts (W): 182.7
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



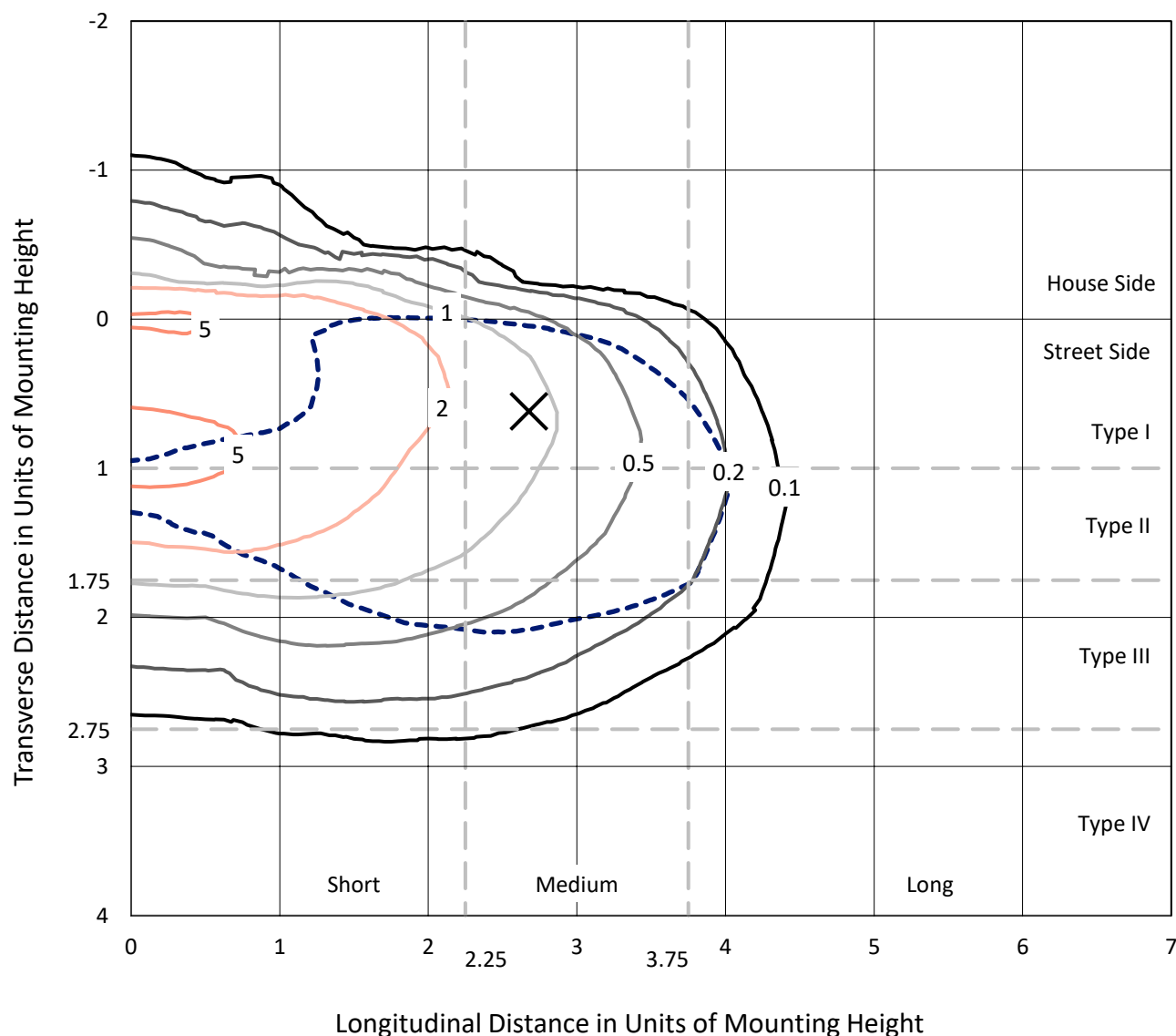
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

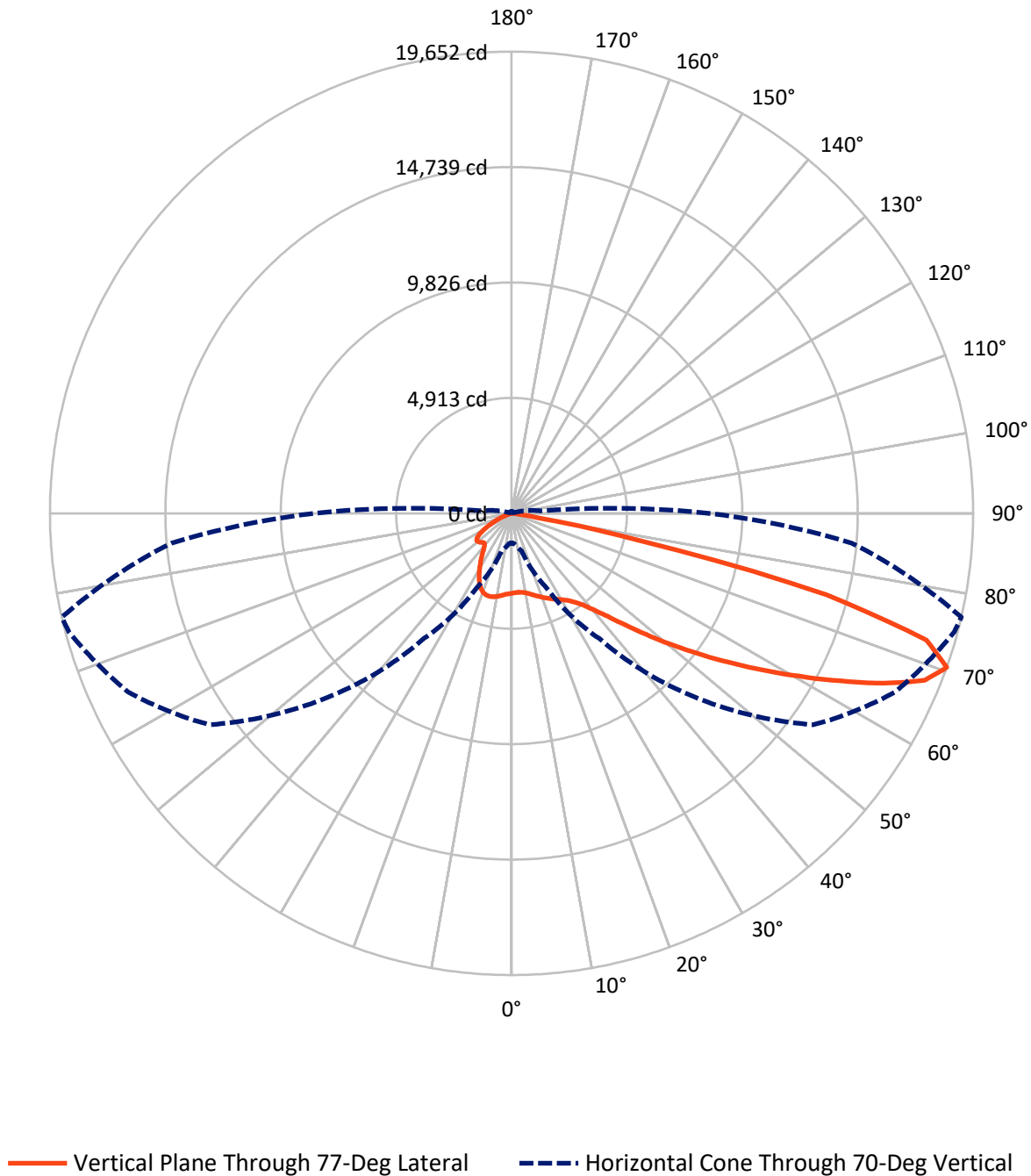
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.4 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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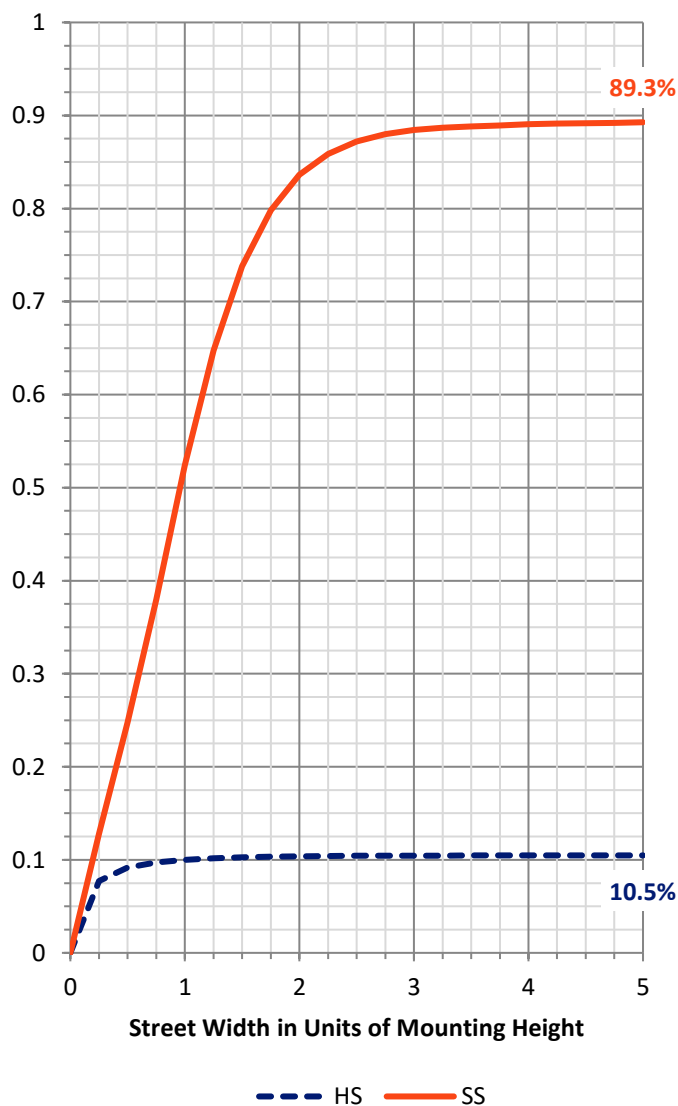
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2299.2	0.0	2299.2
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	19511.8	0.0	19511.8
	% Fixture	89.5	0.0	89.5
Total	Lumens	21811.0	0.0	21811.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	293.2	1.3
10°-20°	696.0	3.2
20°-30°	1076.6	4.9
30°-40°	1953.5	9.0
40°-50°	3687.5	16.9
50°-60°	5328.1	24.4
60°-70°	5671.7	26.0
70°-80°	3005.6	13.8
80°-90°	98.7	0.5
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°	21811.0	100.0
0°-180°	21811.0	100.0

Coefficient of Utilization



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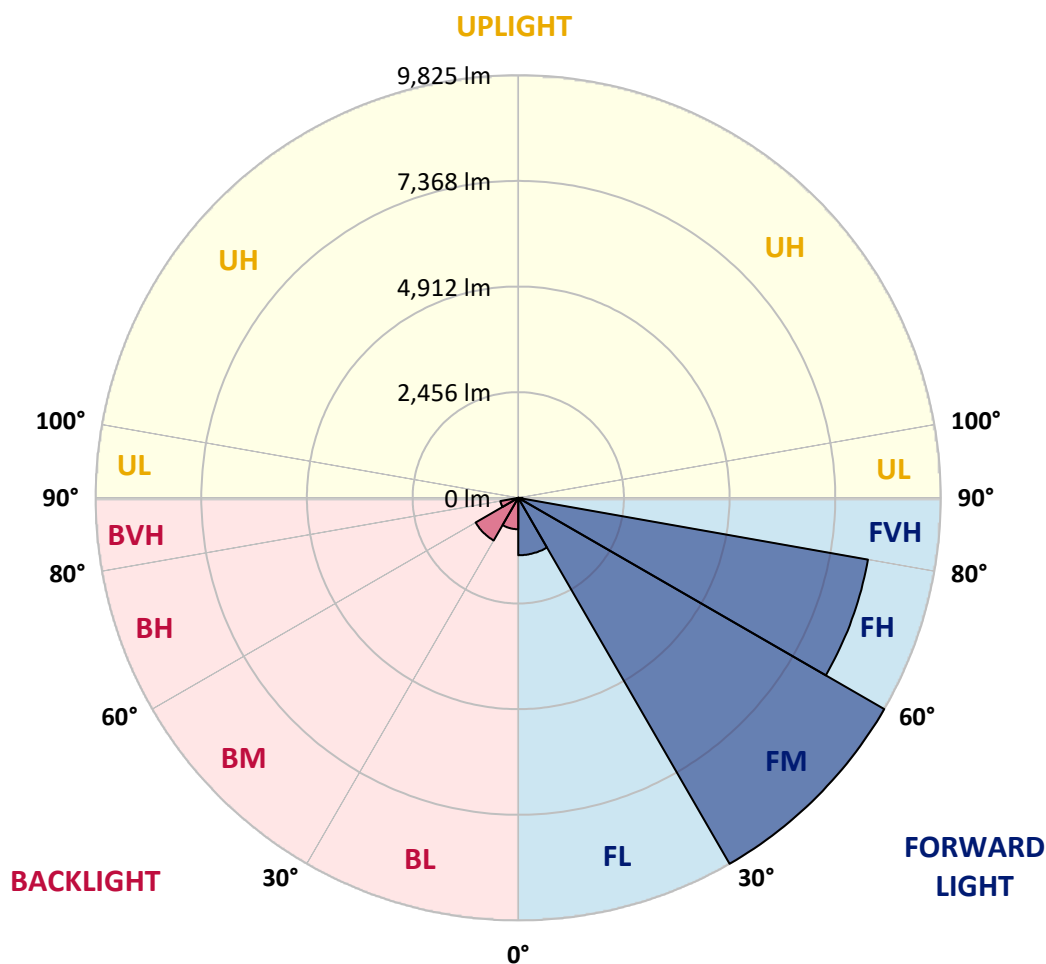
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1335.3	6.1			
FM	(30°-60°)	9824.6	45.0			
FH	(60°-80°)	8255.8	37.9			G4/12000
FVH	(80°-90°)	96.0	0.4			G1/100
BL	(0°-30°)	730.5	3.3	B2/1000		
BM	(30°-60°)	1144.5	5.2	B2/2500		
BH	(60°-80°)	421.5	1.9	B1/500		G1/500
BVH	(80°-90°)	2.7	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-G4

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	3402.1	3402.1	3402.1	3402.1	3402.1	3402.1	3402.1	3402.1	3402.1	3402.1	3402.1
2.5°	3194.1	3223.0	3218.9	3238.2	3245.0	3272.6	3300.2	3337.4	3378.7	3377.4	3404.8
5°	3013.7	3042.6	3049.5	3075.7	3108.7	3151.5	3207.9	3282.3	3359.4	3371.8	3426.9
7.5°	2800.2	2830.5	2848.4	2900.7	2961.3	3049.5	3141.8	3250.6	3378.7	3396.6	3502.6
10°	2586.7	2614.3	2637.6	2712.0	2808.5	2939.3	3089.5	3246.5	3418.7	3444.8	3595.0
12.5°	2454.5	2480.7	2506.8	2571.5	2691.3	2851.1	3055.0	3265.8	3484.8	3521.9	3720.3
15°	2407.6	2431.1	2451.7	2509.6	2621.1	2803.0	3048.1	3305.7	3568.7	3618.4	3871.8
17.5°	2414.5	2426.9	2440.7	2484.8	2593.6	2780.9	3060.5	3374.6	3668.0	3712.0	4023.3
20°	2454.5	2461.3	2462.8	2493.0	2589.5	2778.2	3085.4	3440.7	3761.6	3820.8	4173.5
22.5°	2505.4	2508.2	2505.4	2526.1	2615.6	2798.9	3118.4	3520.6	3866.3	3921.3	4325.0
25°	2743.7	2691.3	2625.2	2585.4	2659.7	2838.7	3168.0	3628.0	3980.6	4034.3	4472.4
27.5°	3483.4	3333.3	3096.3	2830.5	2750.6	2896.6	3236.8	3736.8	4096.3	4144.5	4630.7
30°	4684.5	4487.4	4085.3	3486.1	3042.6	3017.8	3326.3	3845.6	4218.9	4271.3	4800.2
32.5°	5888.3	5840.0	5375.9	4546.7	3699.6	3287.8	3475.2	3993.0	4381.5	4422.8	5028.8
35°	7105.9	7008.1	6628.0	5808.4	4712.0	3837.4	3723.0	4185.9	4595.0	4641.7	5362.1
37.5°	8038.4	7979.1	7743.6	7068.7	5913.1	4685.8	4147.3	4484.8	4904.8	4957.2	5789.1
40°	8862.0	8834.5	8754.6	8309.7	7256.0	5796.0	4807.0	4947.6	5334.6	5396.5	6312.5
42.5°	9509.4	9574.1	9619.6	9495.6	8640.2	7063.2	5694.1	5597.6	5933.7	5997.1	6979.1
45°	10171.9	10193.9	10377.1	10556.2	10014.9	8388.2	6694.1	6359.3	6678.9	6757.4	7778.0
47.5°	10597.6	10685.7	11008.0	11323.4	11170.6	9702.2	7768.4	7258.7	7542.5	7689.9	8673.3
50°	10629.2	10795.9	11239.4	11788.9	12012.1	10952.8	8936.5	8283.5	8585.2	8747.8	9629.3
52.5°	10101.7	10360.6	11048.0	11852.3	12466.7	12012.1	10144.3	9308.3	9695.4	9907.4	10620.9
55°	7745.0	8083.9	10327.6	11508.0	12484.5	12815.1	11320.6	10375.8	10932.2	11171.9	11692.6
57.5°	6747.8	6918.5	8119.6	10910.2	12152.6	13138.8	12383.9	11392.3	12278.0	12575.4	12704.9
60°	5614.2	5838.7	6809.8	9932.2	11702.2	13170.4	13323.4	12703.5	13736.5	14071.3	13633.2
62.5°	3815.4	4059.1	5024.7	8251.9	11086.5	13155.4	14093.3	14053.4	15357.8	15717.2	14419.7
65°	2363.5	2516.5	3152.8	6738.1	10225.6	13171.9	14899.1	15692.4	17068.4	17433.4	15028.6
67.5°	1867.8	1938.0	2270.0	5173.4	8742.2	12800.0	15703.5	17233.7	18678.6	18967.8	15214.5
70°	1254.8	1297.4	1651.5	3468.2	6503.9	11083.7	15688.3	18007.8	19507.8	19652.4	14536.9
72.5°	661.1	694.2	965.6	1606.0	3928.3	7878.6	13224.1	17082.2	18682.7	18465.1	12425.4
75°	330.6	385.7	650.2	815.4	1677.6	4393.9	8211.9	13468.0	14704.9	13861.9	7972.2
77.5°	250.7	303.0	537.2	537.2	584.0	1479.3	3477.8	7345.6	6775.4	5641.7	2340.2
80°	159.8	206.6	469.7	406.3	243.7	376.1	906.3	2057.8	1439.4	1095.0	425.6
82.5°	93.7	135.0	391.1	268.5	136.3	139.1	256.1	438.0	373.3	290.6	130.9
85°	37.2	88.1	268.5	106.1	53.7	34.4	77.2	93.7	77.2	57.8	33.1
87.5°	0.0	20.7	46.8	0.0	4.1	2.8	5.5	6.9	6.9	5.5	11.1
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°	3402.1	3402.1	3402.1	3402.1	3402.1	3402.1	3402.1	3402.1	3402.1	3402.1	3402.1
2.5°	3417.2	3420.0	3428.3	3429.6	3410.4	3385.6	3375.9	3371.8	3355.3	3353.9	3356.7
5°	3458.6	3471.0	3458.6	3422.8	3337.4	3217.6	3126.7	3052.2	2984.8	2964.1	2951.7
7.5°	3541.3	3553.7	3516.5	3375.9	3161.1	2922.8	2707.9	2556.5	2420.0	2369.1	2348.4
10°	3659.7	3676.3	3559.1	3275.4	2895.2	2512.4	2148.7	1892.6	1692.8	1611.5	1577.1
12.5°	3808.5	3815.4	3582.6	3122.6	2549.5	2002.7	1487.6	1213.5	1035.8	969.6	949.0
15°	3972.4	3962.8	3585.3	2914.5	2078.5	1415.9	971.1	797.4	725.9	703.9	703.9
17.5°	4144.5	4104.6	3530.2	2614.3	1561.9	968.3	720.4	679.1	666.7	661.1	659.8
20°	4313.9	4224.4	3429.6	2221.7	1121.1	723.1	654.3	641.9	635.0	632.2	629.5
22.5°	4468.2	4315.4	3257.4	1765.8	814.1	639.1	618.5	607.4	595.0	589.5	588.1
25°	4618.3	4367.6	3015.0	1340.2	651.5	597.8	581.3	560.6	544.1	537.2	534.4
27.5°	4764.3	4400.7	2712.0	991.7	581.3	559.2	528.9	500.0	487.6	484.8	482.1
30°	4920.0	4411.7	2367.8	739.6	538.5	511.0	466.9	433.9	427.0	428.3	428.3
32.5°	5110.0	4428.3	2020.6	606.1	502.8	453.2	400.8	366.3	360.9	366.3	365.0
35°	5337.4	4461.3	1685.9	557.8	471.1	393.9	337.4	308.5	303.0	307.2	305.8
37.5°	5645.9	4515.0	1373.2	548.2	444.8	344.3	283.7	260.3	260.3	261.7	260.3
40°	6056.3	4658.3	1093.7	541.3	431.1	307.2	239.6	230.0	234.1	236.9	236.9
42.5°	6556.3	4962.6	905.0	533.0	415.9	290.6	217.6	213.5	220.4	223.1	223.1
45°	7116.9	5348.3	838.9	519.3	402.2	301.7	208.0	202.4	210.7	212.1	213.5
47.5°	7696.7	5725.8	830.6	504.1	388.4	318.2	205.2	192.8	202.4	203.9	205.2
50°	8283.5	5972.3	838.9	480.7	366.3	318.2	206.6	183.2	191.5	195.6	197.0
52.5°	8874.4	6085.2	833.3	429.8	327.8	298.9	206.6	175.0	183.2	185.9	185.9
55°	9447.4	6063.2	749.3	354.0	278.2	264.4	201.1	168.0	173.5	175.0	175.0
57.5°	9900.6	5756.1	593.7	275.5	225.9	220.4	183.2	159.8	163.9	162.6	162.6
60°	10137.5	5081.1	424.2	212.1	177.6	173.5	161.1	148.7	151.5	144.6	143.3
62.5°	10140.2	4188.6	283.7	168.0	141.9	137.8	137.8	133.6	130.9	117.1	113.0
65°	9923.9	3198.3	188.7	133.6	114.3	107.4	115.7	114.3	104.7	85.4	82.6
67.5°	9433.7	2096.3	143.3	104.7	88.1	84.0	92.2	96.5	89.5	71.6	70.2
70°	8425.4	1220.4	118.5	81.3	66.1	62.0	74.4	82.6	74.4	57.8	55.1
72.5°	6998.5	658.4	96.5	60.6	45.4	41.3	59.2	67.4	59.2	42.7	41.3
75°	4541.2	352.6	74.4	40.0	23.4	26.1	44.1	49.6	41.3	27.6	24.8
77.5°	1524.8	155.6	46.8	19.3	11.1	11.1	26.1	30.3	19.3	9.6	8.3
80°	340.2	64.8	19.3	8.3	4.1	4.1	5.5	5.5	2.8	0.0	0.0
82.5°	111.5	26.1	8.3	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	42.7	9.6	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	16.5	1.3	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)