

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: P969468

Luminaire Tested: **NAV-SB5D-830-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969468
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-830-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 36181.5 lumens
Efficiency: N/A
Efficacy: 99.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G4

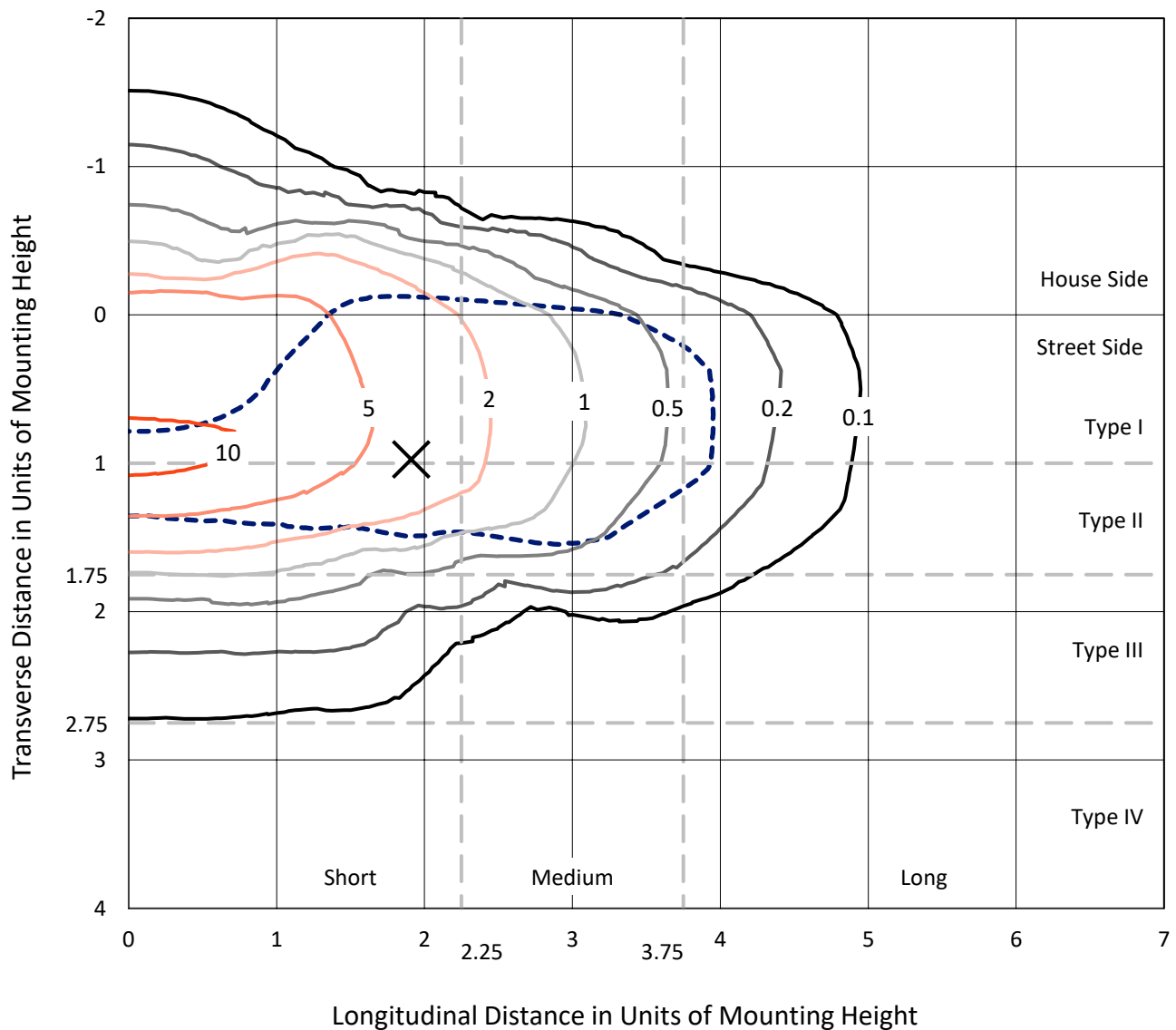
Input Watts (W): 364.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

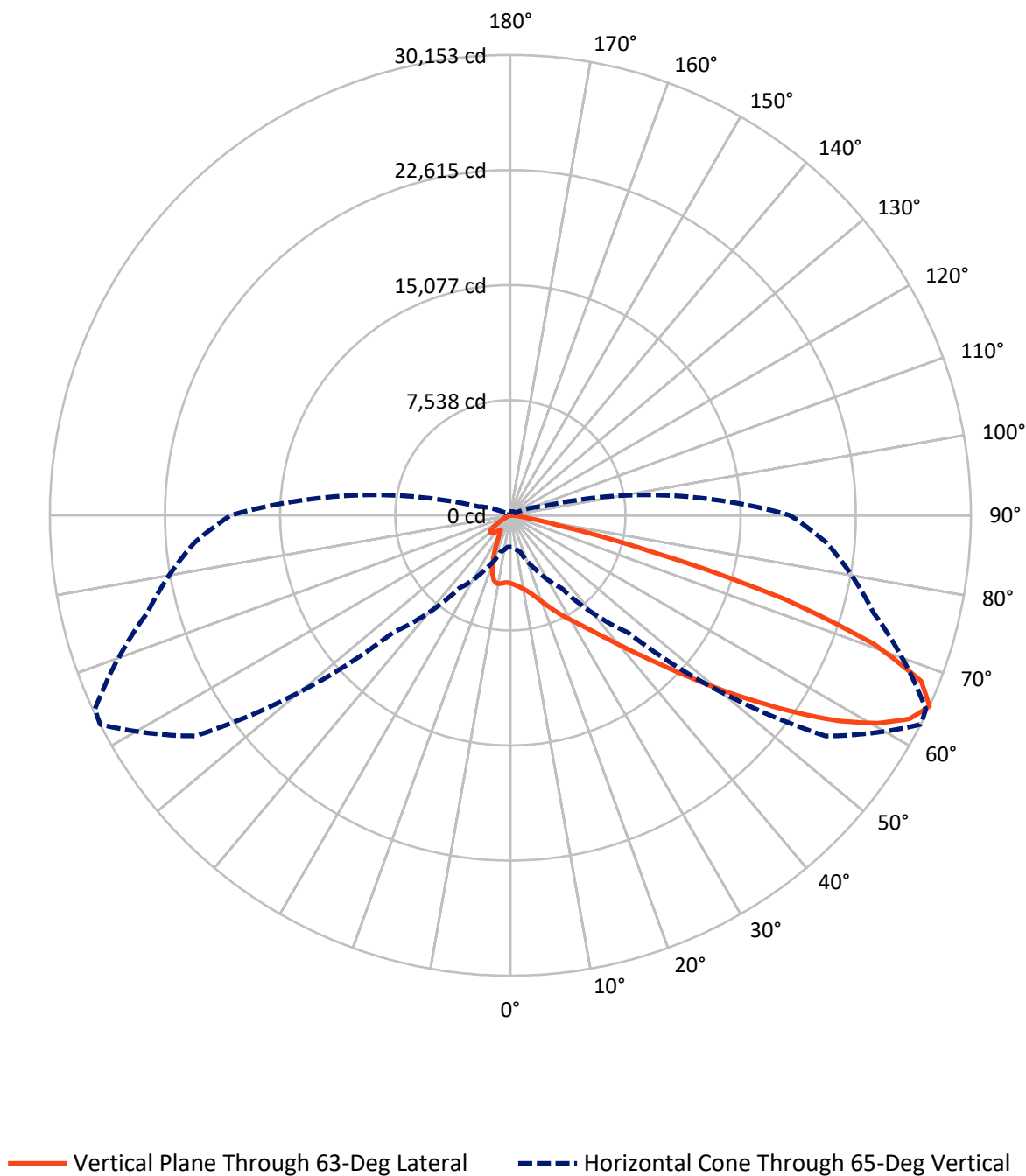
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.2 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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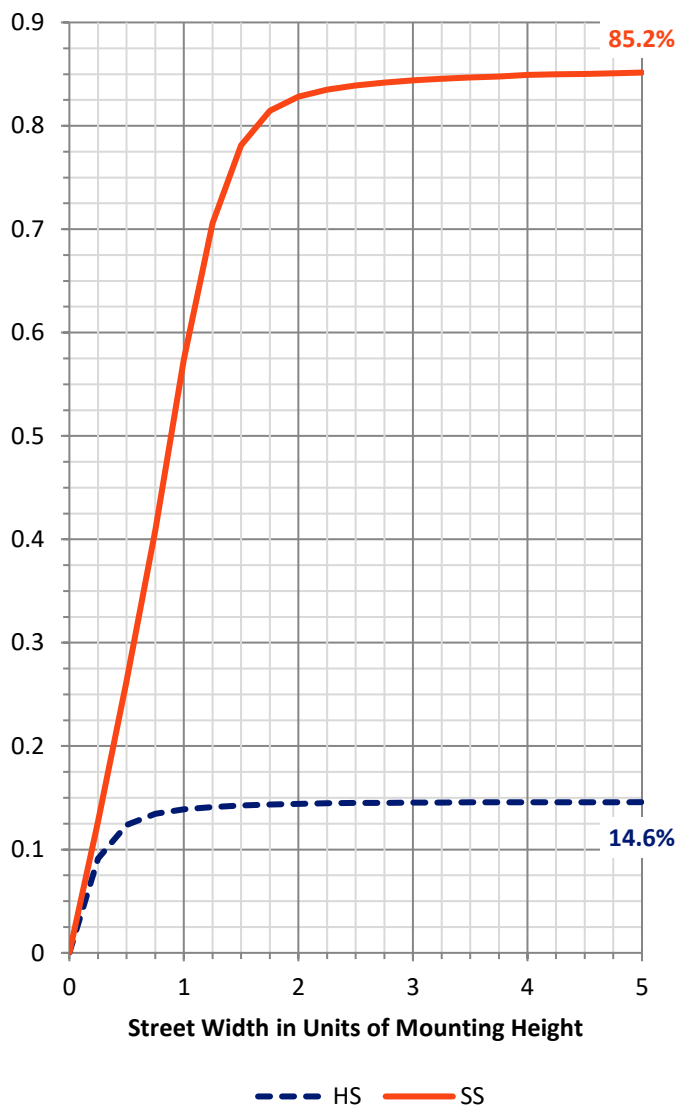
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5318.4	0.0	5318.4
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	30863.1	0.0	30863.1
	% Fixture	85.3	0.0	85.3
Total	Lumens	36181.5	0.0	36181.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	420.7	1.2
10°-20°	1167.4	3.2
20°-30°	2032.7	5.6
30°-40°	3663.7	10.1
40°-50°	7266.3	20.1
50°-60°	9898.0	27.4
60°-70°	7900.5	21.8
70°-80°	3575.2	9.9
80°-90°	257.0	0.7
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°	36181.5	100.0
0°-180°	36181.5	100.0

Coefficient of Utilization



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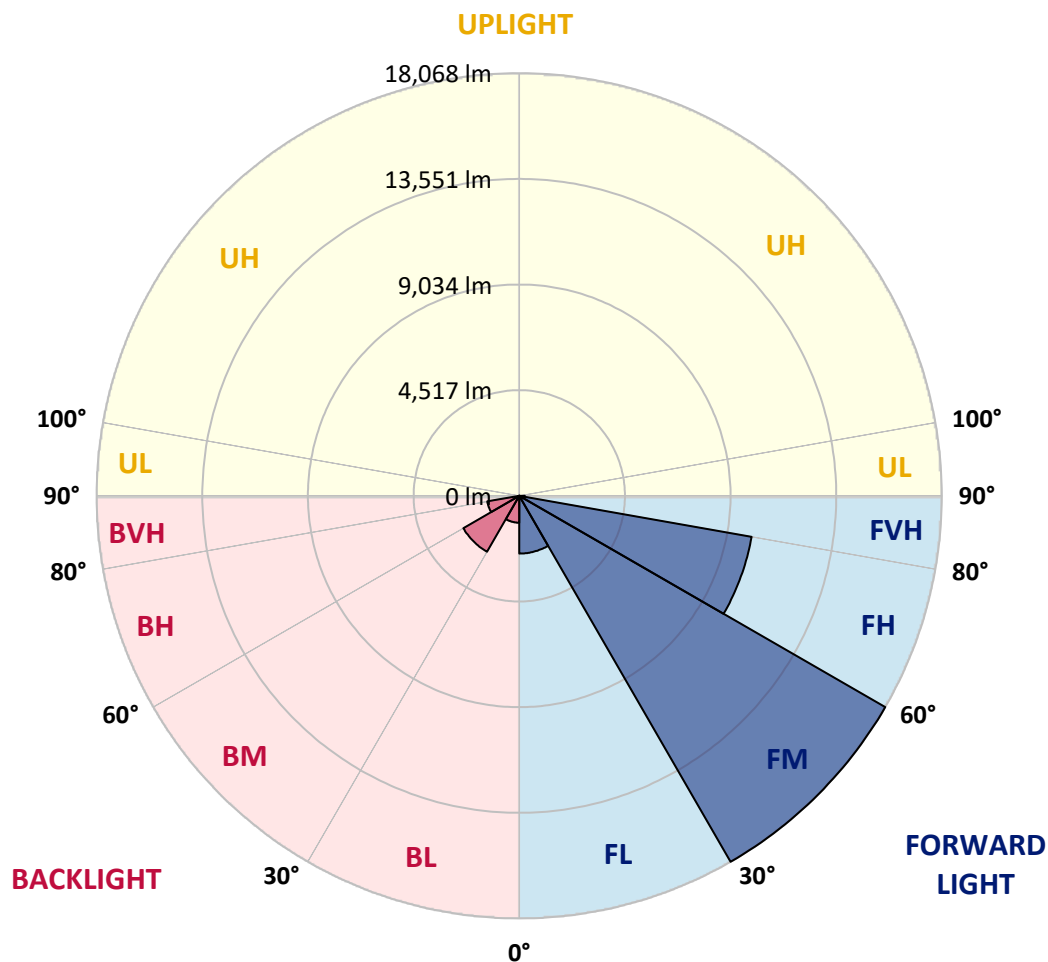
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2469.8	6.8			
FM	(30°-60°)	18068.1	49.9			
FH	(60°-80°)	10087.2	27.9			G4/12000
FVH	(80°-90°)	237.9	0.7			G3/500
BL	(0°-30°)	1151.0	3.2	B3/2500		
BM	(30°-60°)	2759.9	7.6	B3/5000		
BH	(60°-80°)	1388.4	3.8	B3/2500		G3/2500
BVH	(80°-90°)	19.1	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	4465.5	4465.5	4465.5	4465.5	4465.5	4465.5	4465.5	4465.5	4465.5	4465.5	4465.5
2.5°	4570.1	4557.6	4575.0	4567.5	4562.6	4552.6	4547.6	4542.6	4532.7	4525.2	4495.3
5°	4582.5	4575.0	4592.4	4607.4	4622.3	4637.2	4644.7	4654.6	4644.7	4624.8	4594.9
7.5°	4477.9	4472.9	4510.3	4555.1	4622.3	4679.5	4741.8	4776.6	4779.1	4771.7	4739.3
10°	4470.4	4458.0	4495.3	4550.1	4637.2	4739.3	4848.8	4923.5	4933.4	4965.8	4931.0
12.5°	4587.5	4575.0	4627.3	4687.0	4776.6	4883.6	5018.1	5122.6	5137.5	5182.3	5157.5
15°	4784.1	4766.7	4826.4	4903.6	5018.1	5140.1	5281.9	5376.5	5388.9	5443.7	5398.9
17.5°	5013.1	4995.6	5065.3	5147.4	5272.0	5438.8	5603.0	5707.5	5722.5	5757.3	5675.2
20°	5306.8	5284.4	5339.1	5413.8	5545.8	5744.9	5941.5	6090.9	6088.4	6088.4	5954.0
22.5°	5647.9	5613.0	5660.3	5720.0	5844.4	6085.9	6347.2	6524.0	6524.0	6454.3	6232.7
25°	6013.7	5978.8	6031.1	6085.9	6195.4	6469.2	6775.4	6994.4	7004.3	6884.9	6531.4
27.5°	6471.7	6426.9	6466.7	6531.4	6596.2	6875.0	7238.3	7492.2	7497.3	7313.1	6815.2
30°	7352.8	7225.9	7101.4	7031.8	7061.6	7337.9	7726.2	8007.5	8032.4	7778.5	7123.9
32.5°	8965.8	8940.9	8502.8	7930.3	7631.6	7835.7	8271.3	8609.9	8624.8	8298.7	7524.6
35°	11472.3	11442.5	10738.1	9647.8	8674.6	8502.8	8933.5	9334.2	9324.2	8955.8	8044.8
37.5°	14464.3	14436.9	13508.5	12049.8	10474.2	9510.9	9787.2	10207.9	10270.1	9787.2	8716.9
40°	17020.6	16918.5	16331.1	14924.7	12863.7	11183.6	11001.9	11280.6	11345.4	10772.9	9570.6
42.5°	18957.2	18870.0	18571.4	17692.6	15756.1	13657.8	12433.1	12540.2	12612.3	11925.4	10551.3
45°	19960.2	19940.4	20059.8	19977.7	18703.3	16694.5	14479.2	14033.7	14061.1	13202.3	11664.0
47.5°	20102.1	20092.2	20637.2	21408.9	21237.2	20119.5	17105.2	15895.5	15798.4	14643.5	12873.7
50°	19265.8	19245.8	20291.3	21737.5	22929.8	22997.0	20087.2	17993.9	17779.8	16134.4	14135.7
52.5°	16595.0	16589.9	18307.4	20714.4	23524.7	25515.9	23034.3	20298.8	19940.4	17712.5	15469.9
55°	12769.1	12861.3	14830.2	17675.2	22439.4	26728.1	25680.2	22857.6	22307.5	19300.6	16699.5
57.5°	9045.4	9179.9	11126.4	13660.3	19074.1	26011.3	27469.9	25421.3	24829.0	20883.7	17946.5
60°	4858.8	4978.2	6927.3	9951.5	14190.5	23338.0	28413.3	27646.6	27086.5	22387.1	19071.7
62.5°	2894.8	2934.7	3741.1	6424.4	9598.0	17829.6	28012.5	29341.8	28881.2	23649.1	20049.8
65°	2078.4	2085.9	2491.6	3922.9	5827.0	10832.6	25202.3	30153.1	30011.3	24600.0	20774.2
67.5°	1749.9	1744.9	1914.1	2606.1	3970.1	5426.2	19315.5	29005.7	29608.0	25202.3	21184.9
70°	1500.9	1508.4	1707.5	1909.2	2984.5	3071.6	9603.0	25254.6	26539.0	25361.6	21160.0
72.5°	1117.7	1142.5	1326.7	1739.9	2252.6	2113.2	3315.5	18725.6	21048.0	23895.5	20062.3
75°	789.0	801.4	933.5	1463.6	1680.2	1538.3	1692.6	9680.2	12657.2	18319.9	16420.7
77.5°	607.3	629.8	706.9	1023.1	1655.3	1080.2	1035.5	3350.3	5147.4	11066.6	11258.3
80°	328.5	368.4	510.2	739.2	1162.5	764.1	512.8	1334.1	1744.9	5174.9	4341.0
82.5°	169.2	189.2	356.0	532.7	662.2	667.1	253.9	555.0	719.3	1598.0	594.9
85°	67.2	82.1	238.9	293.8	341.0	328.5	114.5	224.1	258.9	443.1	181.7
87.5°	15.0	24.9	87.1	67.2	64.7	69.7	27.4	52.3	49.8	52.3	32.4
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°	4465.5	4465.5	4465.5	4465.5	4465.5	4465.5	4465.5	4465.5	4465.5	4465.5	4465.5
2.5°	4492.9	4482.9	4455.5	4425.6	4390.8	4370.9	4358.4	4355.9	4338.5	4326.1	4338.5
5°	4567.5	4557.6	4505.3	4443.1	4375.8	4323.6	4273.8	4229.0	4164.3	4151.9	4146.8
7.5°	4716.8	4689.5	4604.9	4520.2	4393.3	4241.4	4057.3	3845.7	3656.5	3599.3	3571.9
10°	4901.0	4863.7	4756.7	4607.4	4326.1	3912.9	3467.4	3054.2	2725.6	2633.5	2598.7
12.5°	5110.1	5077.8	4935.9	4659.6	4044.9	3295.6	2613.5	2100.8	1782.2	1702.5	1680.2
15°	5359.1	5311.8	5115.2	4580.0	3542.0	2504.1	1794.7	1491.0	1376.5	1361.5	1346.6
17.5°	5622.9	5545.8	5274.4	4293.7	2865.0	1779.7	1386.4	1299.3	1249.6	1234.6	1227.1
20°	5864.3	5764.8	5369.1	3860.7	2140.6	1386.4	1242.1	1184.8	1140.0	1122.6	1112.6
22.5°	6105.8	5964.0	5369.1	3270.7	1605.5	1229.6	1140.0	1087.7	1035.5	1013.1	1000.6
25°	6357.3	6168.0	5274.4	2613.5	1291.8	1127.6	1042.9	985.6	940.8	913.5	903.5
27.5°	6601.1	6339.8	5057.9	1991.3	1149.9	1037.9	953.4	898.6	856.3	836.3	836.3
30°	6832.6	6509.1	4754.3	1510.8	1057.9	950.9	871.1	823.9	781.6	761.7	764.1
32.5°	7146.3	6723.1	4430.7	1239.5	978.3	868.7	796.5	751.7	714.4	699.5	699.5
35°	7581.8	7039.2	4151.9	1217.2	911.0	801.4	729.3	687.0	649.6	637.2	637.2
37.5°	8199.2	7549.5	4005.0	1366.5	856.3	741.8	674.6	629.8	594.9	585.0	582.4
40°	8960.9	8241.5	4084.6	1515.9	818.9	689.5	624.7	579.9	550.1	537.6	535.2
42.5°	9864.4	9095.2	4525.2	1630.4	794.1	644.7	577.5	527.7	507.8	502.8	502.8
45°	10902.3	10033.6	5199.7	1752.3	754.2	602.4	530.2	492.8	478.0	475.4	472.9
47.5°	12082.2	11064.2	5981.4	1904.1	714.4	562.5	492.8	467.9	455.5	450.5	450.5
50°	13252.0	12102.1	6785.3	1988.8	682.0	525.2	463.0	443.1	433.1	430.6	430.6
52.5°	14476.7	13169.9	7435.0	1909.2	654.7	495.4	438.1	423.1	413.2	410.7	410.7
55°	15644.1	14033.7	7547.0	1620.4	599.8	465.5	410.7	403.2	390.8	390.8	388.3
57.5°	16649.7	14466.7	6755.5	1189.8	545.1	420.7	383.3	375.9	365.9	363.4	360.9
60°	17573.2	14342.3	5214.7	801.4	485.3	375.9	348.5	343.5	333.5	321.1	318.6
62.5°	18093.4	13794.7	3566.9	522.8	425.7	328.5	308.6	306.2	283.7	258.9	253.9
65°	18290.0	12669.6	2225.3	380.8	356.0	281.3	266.3	261.4	229.0	201.6	199.2
67.5°	18118.3	10817.7	1122.6	301.1	281.3	234.0	219.0	219.0	196.6	171.8	169.2
70°	17431.3	8109.6	472.9	241.5	216.6	179.2	179.2	189.2	166.8	139.4	136.9
72.5°	15940.3	5456.2	251.4	184.2	161.7	126.9	146.9	154.4	131.9	104.6	104.6
75°	12672.1	3328.0	174.2	136.9	102.1	89.6	112.0	117.0	89.6	69.7	67.2
77.5°	8667.1	1911.6	117.0	87.1	64.7	52.3	77.2	72.2	47.3	32.4	34.8
80°	3805.8	796.5	67.2	39.9	24.9	19.9	27.4	19.9	15.0	9.9	9.9
82.5°	445.6	186.7	24.9	15.0	9.9	5.0	2.5	0.0	0.0	0.0	0.0
85°	92.1	22.4	12.4	5.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	17.4	5.0	2.5	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)