

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: P967202

Luminaire Tested: **NAV-SB4D-735-U-T2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967202
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-735-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30525.5 lumens
Efficiency: N/A
Efficacy: 104.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G4

Input Watts (W): 293.6
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



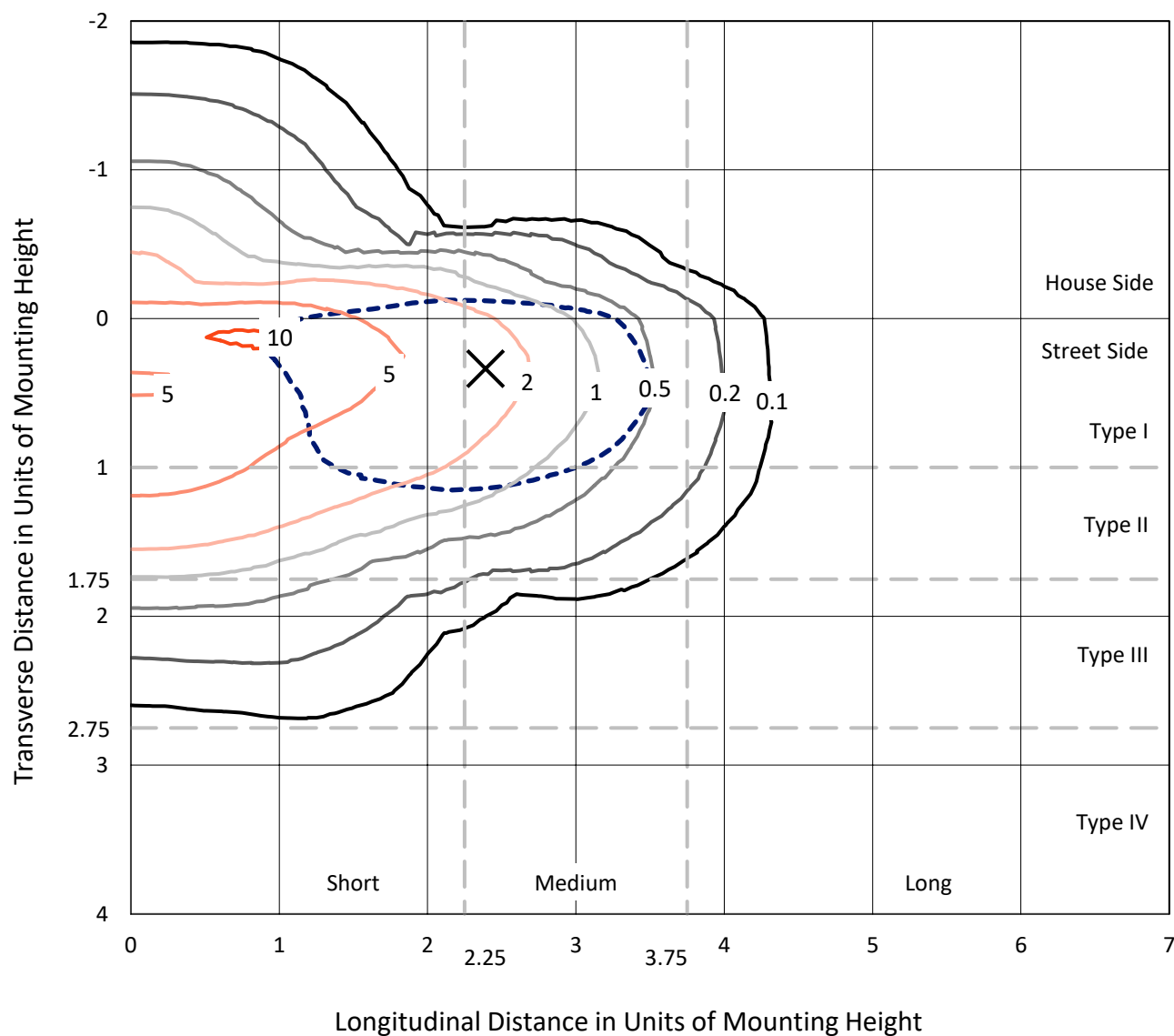
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

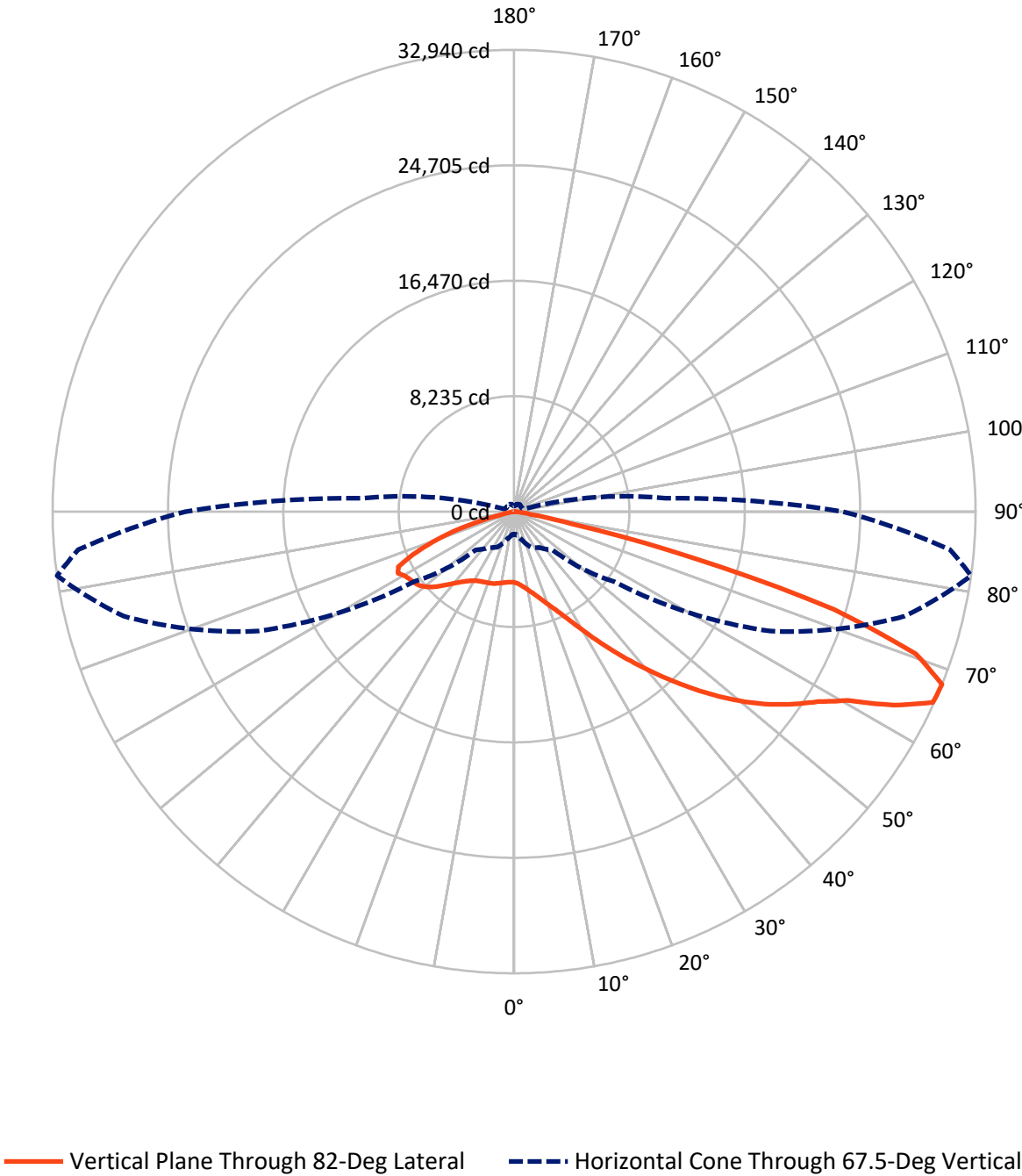
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.7 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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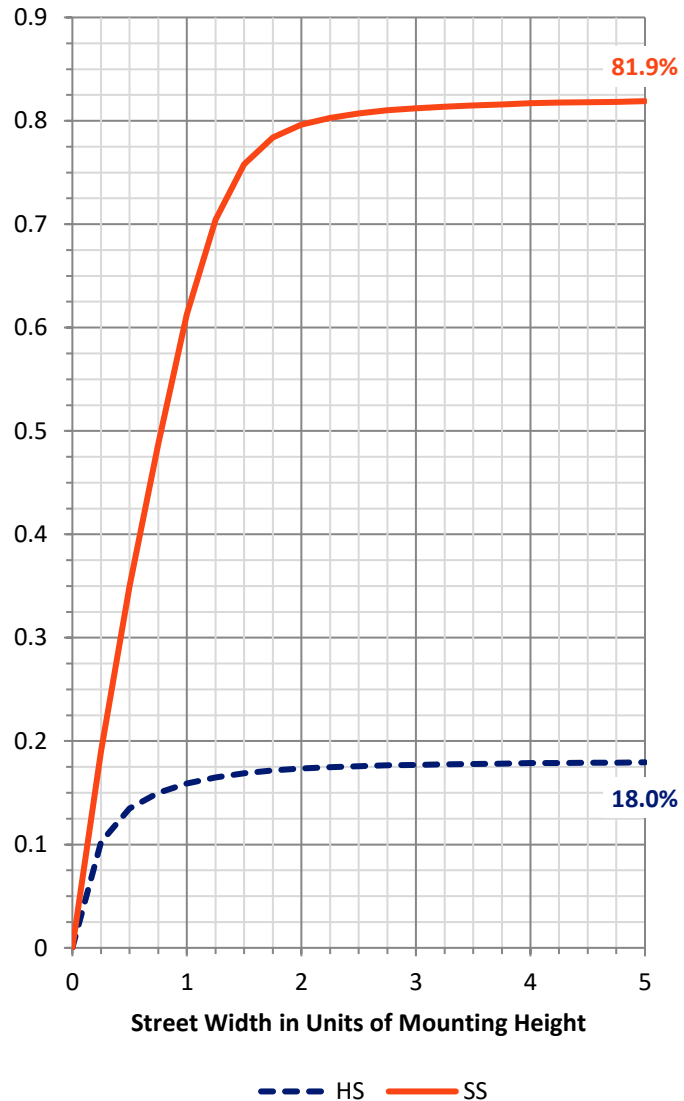
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5529.4	0.0	5529.4
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	24996.1	0.0	24996.1
	% Fixture	81.9	0.0	81.9
Total	Lumens	30525.5	0.0	30525.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	450.5	1.5
10°-20°	1170.8	3.8
20°-30°	1875.2	6.1
30°-40°	3316.0	10.9
40°-50°	5809.9	19.0
50°-60°	7748.8	25.4
60°-70°	7213.7	23.6
70°-80°	2768.6	9.1
80°-90°	172.0	0.6
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°	30525.5	100.0
0°-180°	30525.5	100.0

Coefficient of Utilization



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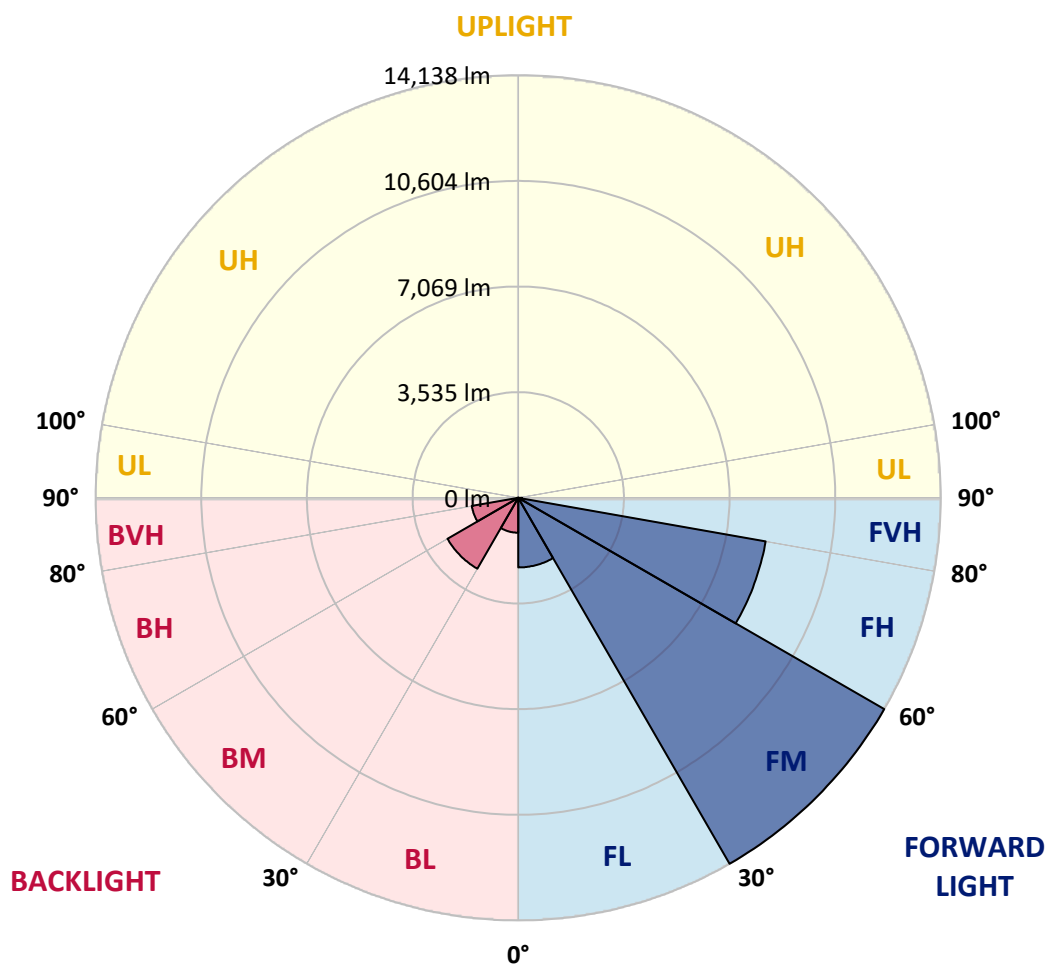
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2328.8	7.6			
FM	(30°-60°)	14138.2	46.3			
FH	(60°-80°)	8404.1	27.5			G4/12000
FVH	(80°-90°)	125.0	0.4			G2/225
BL	(0°-30°)	1167.8	3.8	B3/2500		
BM	(30°-60°)	2736.5	9.0	B3/5000		
BH	(60°-80°)	1578.2	5.2	B3/2500		G3/2500
BVH	(80°-90°)	46.9	0.2			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 Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	5057.0	5057.0	5057.0	5057.0	5057.0	5057.0	5057.0	5057.0	5057.0	5057.0	5057.0
2.5°	5345.0	5375.7	5358.2	5349.4	5334.0	5312.0	5294.4	5239.5	5182.3	5145.0	5131.8
5°	5452.7	5483.4	5481.2	5490.0	5501.0	5507.6	5503.2	5441.6	5360.3	5296.6	5259.3
7.5°	5360.3	5395.5	5424.1	5468.1	5544.9	5626.2	5665.8	5652.7	5569.1	5481.2	5435.1
10°	5098.8	5136.2	5204.3	5307.6	5470.2	5646.0	5793.3	5861.5	5808.7	5712.0	5648.3
12.5°	4619.7	4657.1	4791.2	5015.3	5287.8	5593.3	5874.6	6057.0	6070.3	5973.5	5898.8
15°	4081.2	4118.6	4261.4	4542.8	4958.1	5448.3	5918.6	6263.6	6380.1	6296.6	6206.5
17.5°	3747.2	3780.1	3887.8	4114.2	4547.2	5158.1	5903.2	6483.4	6749.3	6683.4	6575.7
20°	3646.1	3674.6	3725.2	3883.4	4243.9	4857.1	5802.1	6690.0	7147.1	7109.7	6988.9
22.5°	3753.8	3780.1	3795.6	3865.9	4092.2	4659.2	5674.6	6901.0	7608.7	7613.1	7465.8
25°	4002.1	4028.5	4010.9	4054.9	4153.8	4597.7	5626.2	7149.3	8188.8	8237.2	8070.1
27.5°	4410.9	4413.1	4371.3	4369.2	4384.5	4690.0	5676.9	7415.3	8920.7	9010.8	8804.2
30°	5230.7	5197.7	5037.3	4863.6	4784.5	4966.9	5817.5	7729.5	9784.4	9944.9	9685.5
32.5°	6494.4	6446.0	6151.5	5736.1	5318.6	5413.1	6070.3	8087.8	10725.1	11015.2	10698.7
35°	7865.7	7852.6	7544.9	6927.4	6197.7	6048.2	6481.2	8558.0	11751.4	12213.0	11837.1
37.5°	9140.4	9133.9	8958.1	8230.6	7342.7	6933.9	7140.6	9173.4	12850.3	13518.4	13074.5
40°	10305.2	10325.0	10149.2	9498.7	8604.3	8070.1	8037.2	9933.9	14072.2	14940.4	14412.9
42.5°	11311.9	11333.8	11155.8	10674.6	9850.4	9327.3	9138.3	10865.7	15265.6	16467.9	15843.6
45°	11995.4	12131.6	12105.2	11720.7	11129.4	10586.6	10461.4	12034.9	16626.0	18087.6	17355.7
47.5°	12188.8	12314.0	12511.9	12564.6	12204.2	11670.1	11819.6	13443.7	18001.9	19709.5	18876.6
50°	11711.9	11828.3	12239.3	12786.6	13037.1	12872.3	13140.4	14953.5	19410.6	21327.1	20368.8
52.5°	10771.2	10889.9	11408.6	12274.5	13296.4	13815.2	14465.6	16441.4	20775.4	22858.9	21782.0
55°	9410.8	9536.1	10202.0	11182.2	12801.9	14204.1	15571.1	17927.1	22025.9	24236.9	23056.7
57.5°	7560.3	7652.6	8344.9	9716.3	11558.0	13817.3	16386.5	19549.1	23203.9	25590.8	24320.4
60°	4927.4	5008.7	5813.1	7342.7	9496.5	12525.0	16549.1	21357.8	24768.7	27351.1	26023.7
62.5°	3276.8	3331.8	3808.7	4931.8	6687.8	10043.8	15597.5	22801.7	27063.2	30414.8	28944.5
65°	2248.3	2303.3	2780.2	3562.6	4320.8	6643.8	12861.3	22610.6	29142.3	32847.8	31109.3
67.5°	1604.3	1650.6	2054.9	2793.3	3127.4	3859.2	8718.5	20166.7	28843.4	32940.0	31225.8
70°	1149.4	1175.8	1509.8	2175.8	2485.6	2318.7	4848.2	15423.9	25254.5	30417.0	28847.8
72.5°	804.4	813.1	1048.4	1657.1	2002.1	1692.3	2307.7	10283.3	19100.8	23874.3	22364.4
75°	545.1	556.1	705.5	1215.3	1606.6	1292.3	1222.0	5514.2	11213.0	13215.1	11845.9
77.5°	334.0	338.5	454.9	830.8	1202.2	984.6	786.8	2336.2	4338.4	4259.3	3630.7
80°	189.0	189.0	290.1	516.5	819.8	635.2	551.7	993.4	1373.6	1206.5	1063.7
82.5°	105.5	107.7	210.9	320.8	542.8	375.9	303.3	459.3	593.4	525.3	457.2
85°	44.0	48.4	129.7	151.6	259.3	186.9	123.1	193.4	219.8	195.6	142.9
87.5°	4.4	6.6	39.6	28.6	30.7	37.4	17.6	37.4	30.7	30.7	21.9
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°	5057.0	5057.0	5057.0	5057.0	5057.0	5057.0	5057.0	5057.0	5057.0	5057.0	5057.0
2.5°	5090.0	5057.0	4973.5	4876.8	4749.3	4687.8	4604.3	4547.2	4498.8	4503.2	4459.3
5°	5189.0	5105.4	4918.6	4685.6	4395.5	4189.0	3969.1	3817.5	3694.4	3668.1	3608.7
7.5°	5325.2	5193.3	4865.9	4446.0	3956.0	3584.5	3252.7	3039.5	2887.8	2839.6	2791.2
10°	5501.0	5309.8	4797.7	4145.0	3439.5	2967.0	2611.0	2443.9	2340.6	2305.4	2279.1
12.5°	5705.4	5443.9	4707.6	3777.9	2907.6	2452.7	2226.3	2142.9	2109.9	2098.9	2092.2
15°	5962.5	5610.8	4571.3	3342.8	2457.1	2138.5	2041.7	2030.7	2035.1	2030.7	2028.6
17.5°	6268.0	5793.3	4349.4	2894.5	2153.8	1977.9	1942.8	1951.6	1962.6	1960.4	1956.0
20°	6602.0	5973.5	4065.9	2496.7	1947.2	1863.7	1843.9	1852.7	1861.5	1857.1	1854.9
22.5°	6982.3	6166.9	3751.6	2186.7	1808.7	1758.2	1736.2	1738.4	1738.4	1729.7	1725.3
25°	7437.2	6380.1	3422.0	1967.0	1703.2	1663.7	1637.3	1628.5	1615.4	1589.0	1584.5
27.5°	7980.0	6606.4	3105.4	1813.1	1619.7	1582.4	1551.6	1529.6	1496.7	1452.7	1448.3
30°	8591.0	6881.2	2837.3	1716.5	1553.8	1516.5	1481.3	1448.3	1399.9	1345.0	1340.6
32.5°	9309.7	7175.7	2641.7	1652.7	1494.4	1454.9	1413.2	1373.6	1320.8	1265.9	1268.1
35°	10166.9	7531.7	2527.4	1608.7	1448.3	1395.5	1349.4	1305.4	1265.9	1217.6	1213.2
37.5°	11096.4	7909.7	2492.3	1586.8	1417.6	1336.2	1283.5	1252.8	1248.3	1219.8	1217.6
40°	12114.1	8358.1	2518.6	1573.6	1384.6	1279.1	1222.0	1215.3	1226.3	1175.8	1178.0
42.5°	13190.9	8889.9	2562.6	1558.2	1338.4	1222.0	1167.0	1167.0	1158.2	1087.9	1087.9
45°	14355.7	9503.1	2606.6	1520.9	1283.5	1164.8	1123.1	1107.7	1070.3	1002.1	1000.0
47.5°	15529.4	10127.3	2639.5	1452.7	1217.6	1116.4	1079.1	1044.0	989.0	927.4	925.3
50°	16643.6	10687.7	2604.3	1351.7	1142.9	1070.3	1030.7	982.4	923.0	881.3	874.7
52.5°	17639.2	11173.4	2454.9	1233.0	1063.7	1021.9	986.8	936.2	887.9	844.0	839.6
55°	18505.1	11566.8	2191.1	1120.8	993.4	980.2	945.0	881.3	815.4	778.0	773.6
57.5°	19335.9	11865.7	1861.5	1028.6	929.7	934.1	881.3	824.2	762.6	723.0	718.6
60°	20441.4	12265.7	1527.5	942.8	861.5	874.7	817.5	775.8	698.8	648.3	641.8
62.5°	22208.4	12887.6	1213.2	837.3	782.4	786.8	762.6	712.1	619.8	560.5	556.1
65°	23610.6	12659.1	956.0	723.0	692.3	698.8	698.8	643.9	545.1	476.9	470.3
67.5°	23452.3	10839.4	762.6	611.0	606.6	611.0	626.4	580.3	483.5	428.6	419.7
70°	21604.0	8621.8	611.0	507.7	527.5	516.5	560.5	529.6	435.1	380.2	373.6
72.5°	17628.3	6210.9	466.0	419.7	404.4	422.0	505.5	476.9	362.6	301.0	294.5
75°	10300.9	3314.2	347.3	331.9	292.3	351.7	448.3	406.6	277.0	222.0	215.4
77.5°	3353.8	1156.0	254.9	244.0	217.6	283.5	382.4	342.9	226.3	175.8	169.2
80°	898.9	349.4	173.6	160.4	140.6	210.9	303.3	272.5	162.7	114.3	112.1
82.5°	360.4	147.3	101.1	90.1	76.9	145.0	239.5	219.8	120.8	72.6	72.6
85°	116.4	48.4	37.4	28.6	35.2	90.1	142.9	149.4	85.7	37.4	28.6
87.5°	15.4	6.6	6.6	8.8	6.6	15.4	44.0	41.7	24.2	4.4	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)