

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: P965776

Luminaire Tested: **NAV-SB4A-830-U-T2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965776
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-SB4A-830-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 350mA 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: 12090.9 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

Input Watts (W): 114
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

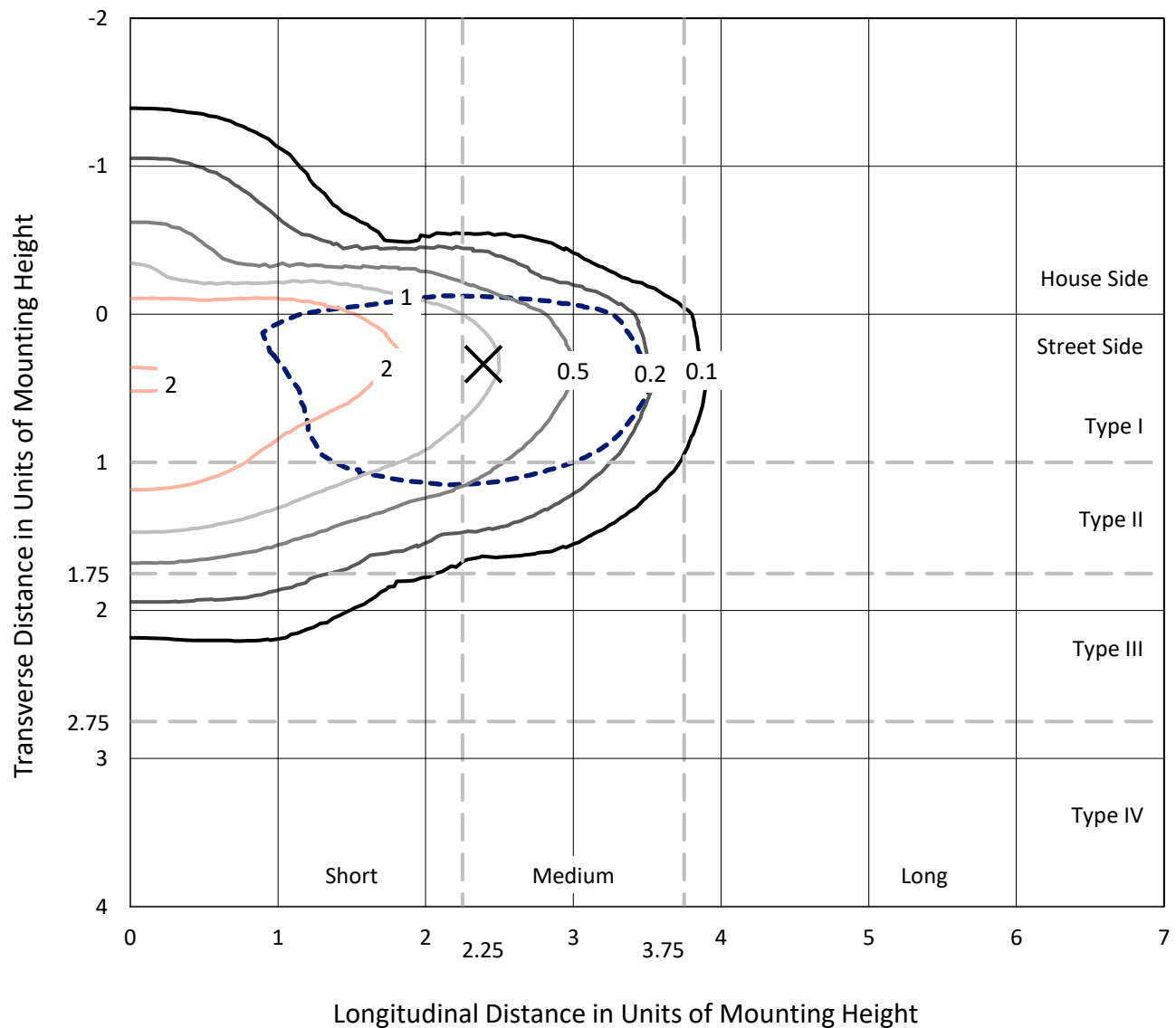


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Iso-Footcandle Lines of Horizontal Illumination

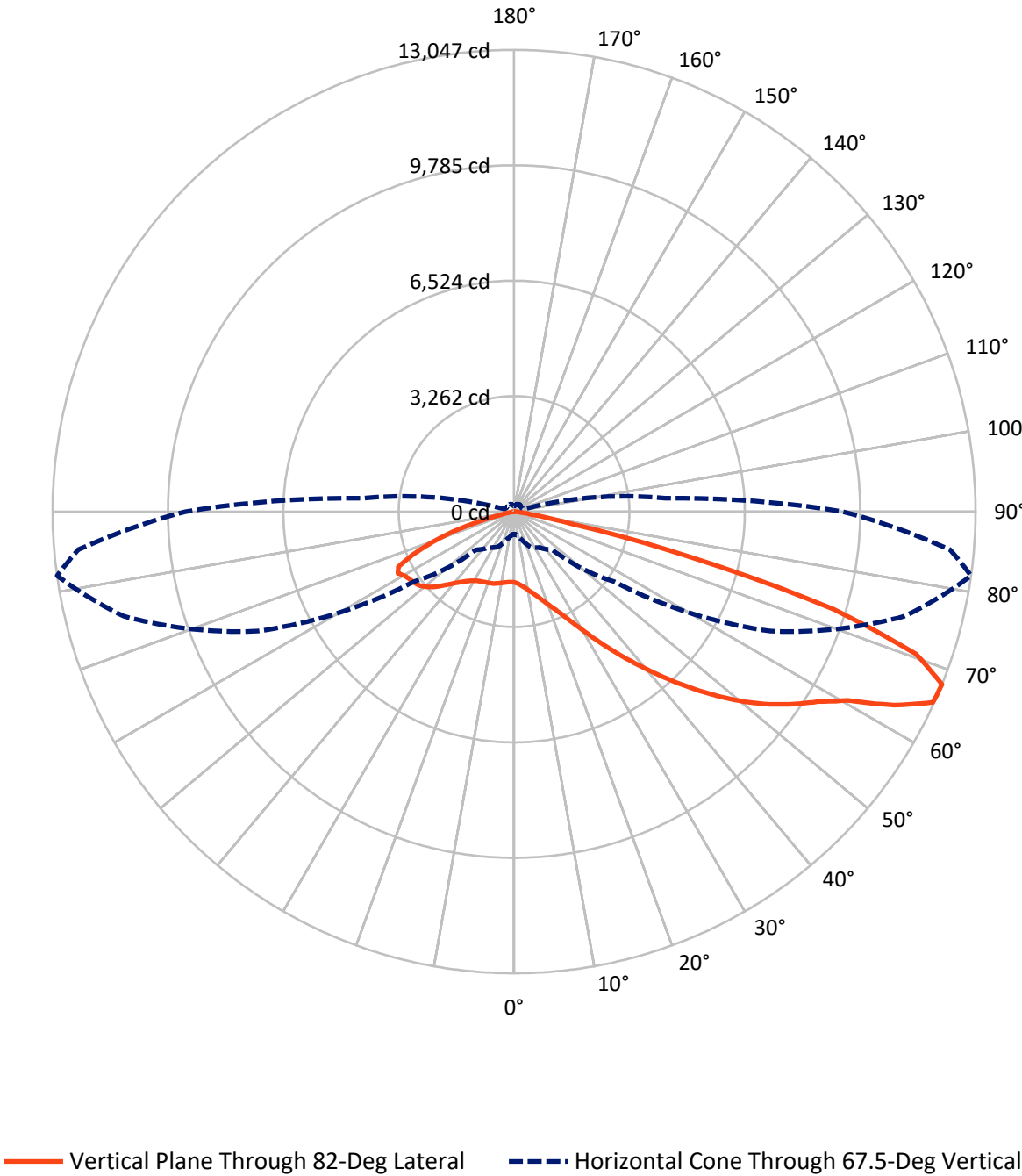
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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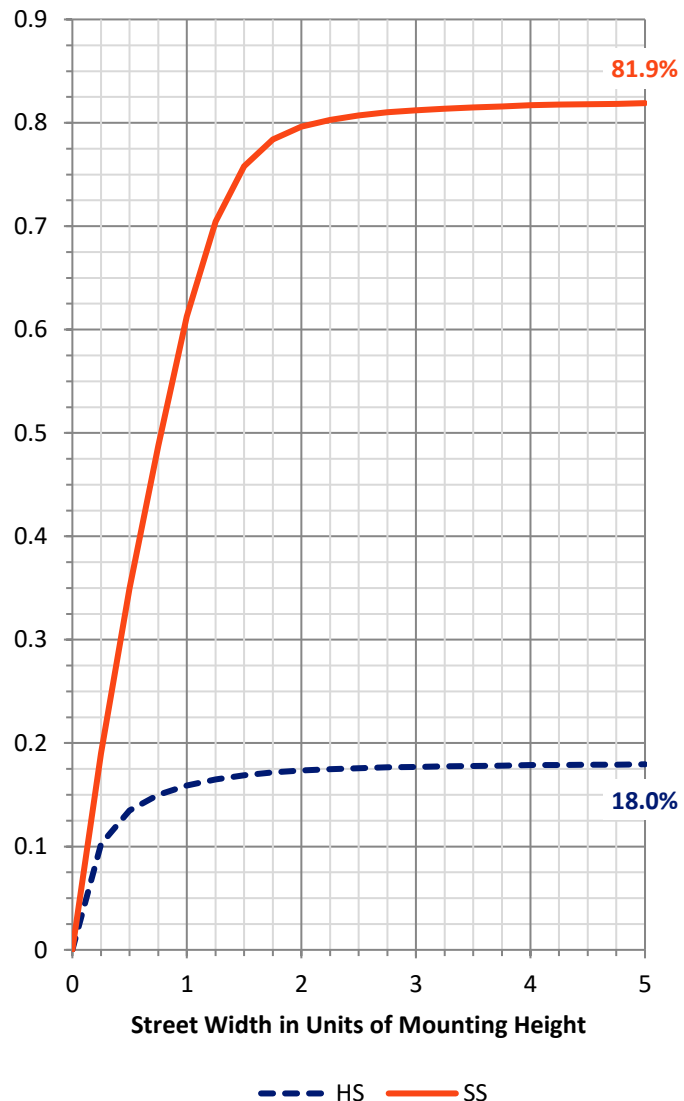
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2190.2	0.0	2190.2
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	9900.7	0.0	9900.7
	% Fixture	81.9	0.0	81.9
Total	Lumens	12090.9	0.0	12090.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	178.5	1.5
10°-20°	463.7	3.8
20°-30°	742.8	6.1
30°-40°	1313.4	10.9
40°-50°	2301.3	19.0
50°-60°	3069.2	25.4
60°-70°	2857.3	23.6
70°-80°	1096.6	9.1
80°-90°	68.1	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°	12090.9	100.0
0°-180°	12090.9	100.0

Coefficient of Utilization



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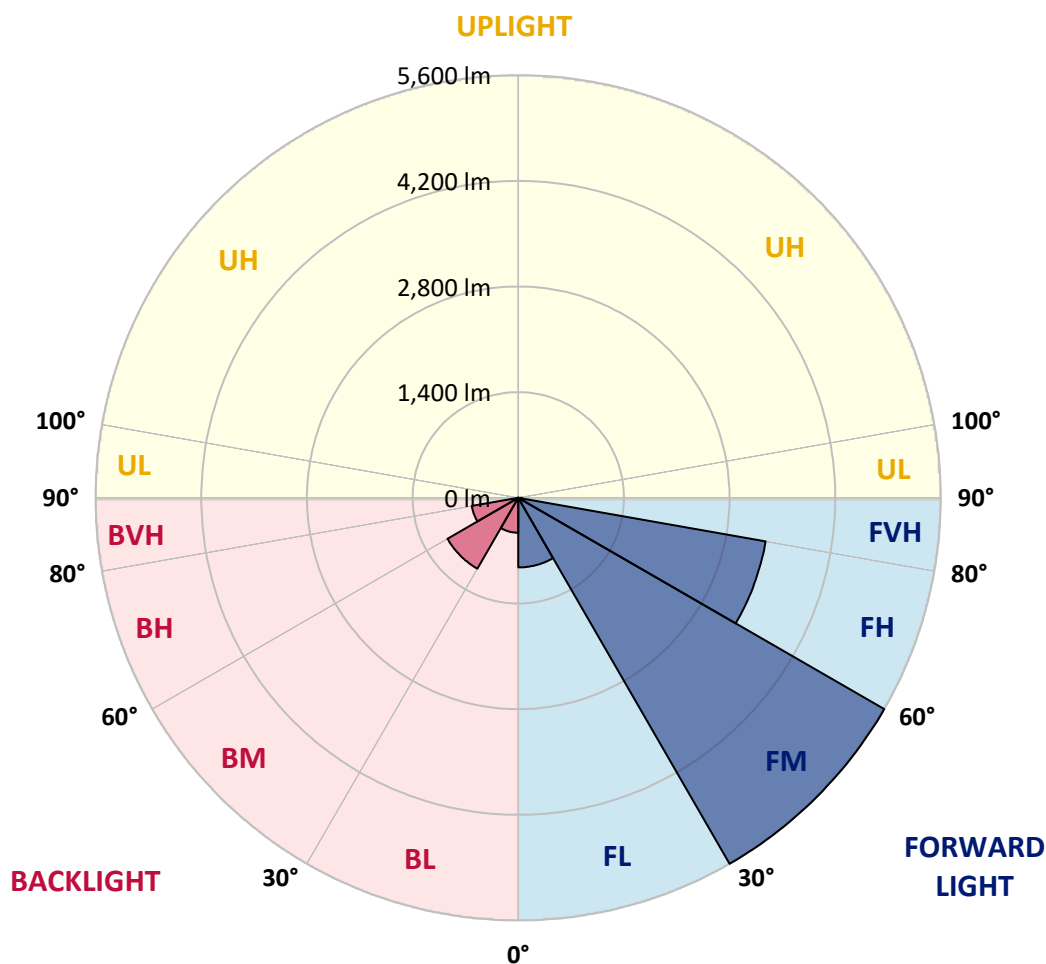
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	922.4	7.6			
FM	(30°-60°)	5600.0	46.3			
FH	(60°-80°)	3328.8	27.5			G2/5000
FVH	(80°-90°)	49.5	0.4			G1/100
BL	(0°-30°)	462.6	3.8	B1/500		
BM	(30°-60°)	1083.9	9.0	B2/2500		
BH	(60°-80°)	625.1	5.2	B2/1000		G2/1000
BVH	(80°-90°)	18.6	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2003.1	2003.1	2003.1	2003.1	2003.1	2003.1	2003.1	2003.1	2003.1	2003.1	2003.1
2.5°	2117.1	2129.2	2122.3	2118.9	2112.7	2104.0	2097.0	2075.3	2052.7	2037.9	2032.7
5°	2159.8	2172.0	2171.1	2174.5	2178.9	2181.5	2179.8	2155.4	2123.2	2098.0	2083.1
7.5°	2123.2	2137.1	2148.4	2165.8	2196.3	2228.6	2244.1	2239.0	2205.9	2171.1	2152.8
10°	2019.6	2034.4	2061.4	2102.3	2166.7	2236.3	2294.7	2321.6	2300.8	2262.5	2237.3
12.5°	1829.8	1844.6	1897.7	1986.6	2094.5	2215.4	2326.9	2399.1	2404.3	2366.0	2336.5
15°	1616.5	1631.4	1688.0	1799.4	1963.9	2158.0	2344.3	2481.0	2527.1	2494.0	2458.4
17.5°	1484.2	1497.3	1540.0	1629.6	1801.1	2043.1	2338.2	2568.0	2673.3	2647.3	2604.6
20°	1444.2	1455.5	1475.5	1538.2	1681.0	1923.8	2298.2	2649.8	2830.9	2816.1	2768.2
22.5°	1486.9	1497.3	1503.4	1531.2	1620.9	1845.5	2247.6	2733.4	3013.7	3015.4	2957.1
25°	1585.2	1595.6	1588.6	1606.1	1645.2	1821.1	2228.6	2831.8	3243.5	3262.7	3196.6
27.5°	1747.1	1748.0	1731.4	1730.6	1736.7	1857.7	2248.5	2937.1	3533.4	3569.2	3487.3
30°	2071.8	2058.8	1995.3	1926.5	1895.1	1967.4	2304.2	3061.6	3875.5	3939.1	3836.4
32.5°	2572.3	2553.2	2436.5	2272.0	2106.7	2144.1	2404.3	3203.5	4248.1	4363.0	4237.7
35°	3115.6	3110.4	2988.5	2743.8	2454.9	2395.6	2567.1	3389.8	4654.6	4837.5	4688.6
37.5°	3620.5	3617.8	3548.2	3260.1	2908.4	2746.5	2828.3	3633.5	5089.9	5354.5	5178.7
40°	4081.9	4089.6	4020.0	3762.4	3408.0	3196.6	3183.4	3934.8	5574.0	5917.7	5708.8
42.5°	4480.6	4489.2	4418.8	4228.1	3901.7	3694.5	3619.6	4303.9	6046.6	6522.8	6275.6
45°	4751.3	4805.2	4794.7	4642.4	4408.3	4193.3	4143.7	4767.0	6585.4	7164.3	6874.5
47.5°	4827.9	4877.5	4955.9	4976.7	4834.0	4622.4	4681.6	5325.0	7130.4	7806.8	7476.9
50°	4638.9	4685.1	4847.9	5064.6	5163.8	5098.6	5204.8	5923.0	7688.4	8447.4	8067.9
52.5°	4266.4	4313.4	4518.8	4861.8	5266.7	5472.1	5729.7	6512.3	8229.0	9054.2	8627.6
55°	3727.5	3777.1	4041.0	4429.1	5070.8	5626.1	6167.6	7100.8	8724.3	9600.0	9132.5
57.5°	2994.5	3031.1	3305.3	3848.6	4578.1	5472.9	6490.5	7743.3	9190.9	10136.2	9633.2
60°	1951.7	1983.9	2302.6	2908.4	3761.4	4961.1	6555.0	8459.6	9810.7	10833.5	10307.7
62.5°	1298.0	1319.7	1508.6	1953.4	2649.0	3978.2	6178.1	9031.6	10719.6	12047.0	11464.6
65°	890.5	912.2	1101.2	1411.1	1711.4	2631.6	5094.2	8955.8	11543.0	13010.7	12322.1
67.5°	635.5	653.7	814.0	1106.4	1238.7	1528.6	3453.3	7987.8	11424.6	13047.2	12368.3
70°	455.3	465.8	598.1	861.8	984.5	918.4	1920.3	6109.3	10003.1	12048.0	11426.4
72.5°	318.6	322.1	415.2	656.4	793.0	670.2	914.0	4073.1	7565.6	9456.4	8858.4
75°	215.9	220.3	279.4	481.4	636.3	511.9	484.0	2184.1	4441.3	5234.4	4692.0
77.5°	132.3	134.1	180.2	329.0	476.2	390.0	311.6	925.4	1718.4	1687.0	1438.1
80°	74.8	74.8	114.9	204.6	324.7	251.5	218.5	393.5	544.1	478.0	421.4
82.5°	41.8	42.6	83.5	127.1	215.0	148.8	120.1	181.9	235.0	208.1	181.1
85°	17.4	19.2	51.4	60.1	102.7	74.0	48.8	76.6	87.0	77.5	56.6
87.5°	1.7	2.6	15.7	11.3	12.2	14.8	7.0	14.8	12.2	12.2	8.7
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°	2003.1	2003.1	2003.1	2003.1	2003.1	2003.1	2003.1	2003.1	2003.1	2003.1	2003.1
2.5°	2016.1	2003.1	1969.9	1931.7	1881.2	1856.8	1823.7	1801.1	1782.0	1783.7	1766.3
5°	2055.3	2022.2	1948.2	1856.0	1741.1	1659.2	1572.1	1512.1	1463.3	1452.9	1429.4
7.5°	2109.2	2057.1	1927.3	1761.1	1566.9	1419.8	1288.3	1204.0	1143.9	1124.7	1105.6
10°	2178.9	2103.2	1900.4	1641.7	1362.3	1175.2	1034.1	968.0	927.1	913.2	902.7
12.5°	2259.8	2156.3	1864.7	1496.4	1151.7	971.5	881.8	848.8	835.7	831.4	828.7
15°	2361.7	2222.4	1810.7	1324.1	973.2	847.1	808.7	804.3	806.1	804.3	803.5
17.5°	2482.8	2294.7	1722.7	1146.5	853.1	783.5	769.6	773.1	777.4	776.5	774.8
20°	2615.0	2366.0	1610.5	988.9	771.3	738.2	730.3	733.8	737.3	735.5	734.7
22.5°	2765.7	2442.7	1485.9	866.1	716.5	696.4	687.7	688.6	688.6	685.1	683.4
25°	2945.8	2527.1	1355.4	779.1	674.7	659.0	648.5	645.0	639.8	629.3	627.6
27.5°	3160.8	2616.7	1230.0	718.2	641.5	626.8	614.6	605.9	592.9	575.4	573.7
30°	3402.8	2725.6	1123.8	679.9	615.4	600.6	586.7	573.7	554.5	532.8	531.1
32.5°	3687.5	2842.2	1046.3	654.7	591.9	576.3	559.8	544.1	523.2	501.4	502.2
35°	4027.0	2983.3	1001.1	637.2	573.7	552.8	534.5	517.1	501.4	482.3	480.5
37.5°	4395.2	3133.0	987.2	628.5	561.5	529.3	508.4	496.2	494.5	483.2	482.3
40°	4798.2	3310.5	997.6	623.3	548.4	506.7	484.0	481.4	485.7	465.8	466.6
42.5°	5224.8	3521.2	1015.1	617.2	530.1	484.0	462.3	462.3	458.8	430.9	430.9
45°	5686.2	3764.1	1032.4	602.4	508.4	461.4	444.8	438.7	423.9	397.0	396.1
47.5°	6151.0	4011.3	1045.5	575.4	482.3	442.2	427.4	413.5	391.8	367.4	366.4
50°	6592.4	4233.4	1031.6	535.4	452.6	423.9	408.3	389.1	365.6	349.1	346.4
52.5°	6986.7	4425.6	972.3	488.3	421.4	404.8	390.8	370.8	351.7	334.3	332.5
55°	7329.8	4581.5	867.9	443.9	393.5	388.3	374.3	349.1	323.0	308.1	306.4
57.5°	7658.8	4699.9	737.3	407.4	368.2	369.9	349.1	326.5	302.1	286.4	284.6
60°	8096.7	4858.3	605.1	373.4	341.2	346.4	323.8	307.3	276.9	256.8	254.2
62.5°	8796.6	5104.7	480.5	331.7	309.9	311.6	302.1	282.1	245.5	222.0	220.3
65°	9351.9	5014.2	378.6	286.4	274.2	276.9	276.9	255.0	215.9	188.9	186.2
67.5°	9289.3	4293.4	302.1	242.0	240.3	242.0	248.0	229.8	191.5	169.7	166.3
70°	8557.1	3415.0	242.0	201.1	208.9	204.6	222.0	209.8	172.4	150.6	148.0
72.5°	6982.4	2460.1	184.5	166.3	160.2	167.2	200.2	188.9	143.6	119.3	116.6
75°	4080.1	1312.7	137.6	131.4	115.8	139.3	177.6	161.0	109.7	87.9	85.3
77.5°	1328.4	457.9	101.0	96.7	86.2	112.3	151.5	135.8	89.7	69.6	67.0
80°	356.1	138.4	68.8	63.6	55.8	83.5	120.1	107.9	64.4	45.3	44.4
82.5°	142.8	58.3	40.1	35.7	30.4	57.5	94.9	87.0	47.9	28.7	28.7
85°	46.1	19.2	14.8	11.3	13.9	35.7	56.6	59.2	33.9	14.8	11.3
87.5°	6.0	2.6	2.6	3.5	2.6	6.0	17.4	16.5	9.5	1.7	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)