

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: P966275

Luminaire Tested: **NAV-SB4B-827-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966275
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-SB4B-827-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 450mA 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: 15372.9 lumens
Efficiency: N/A
Efficacy: 104.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 147
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



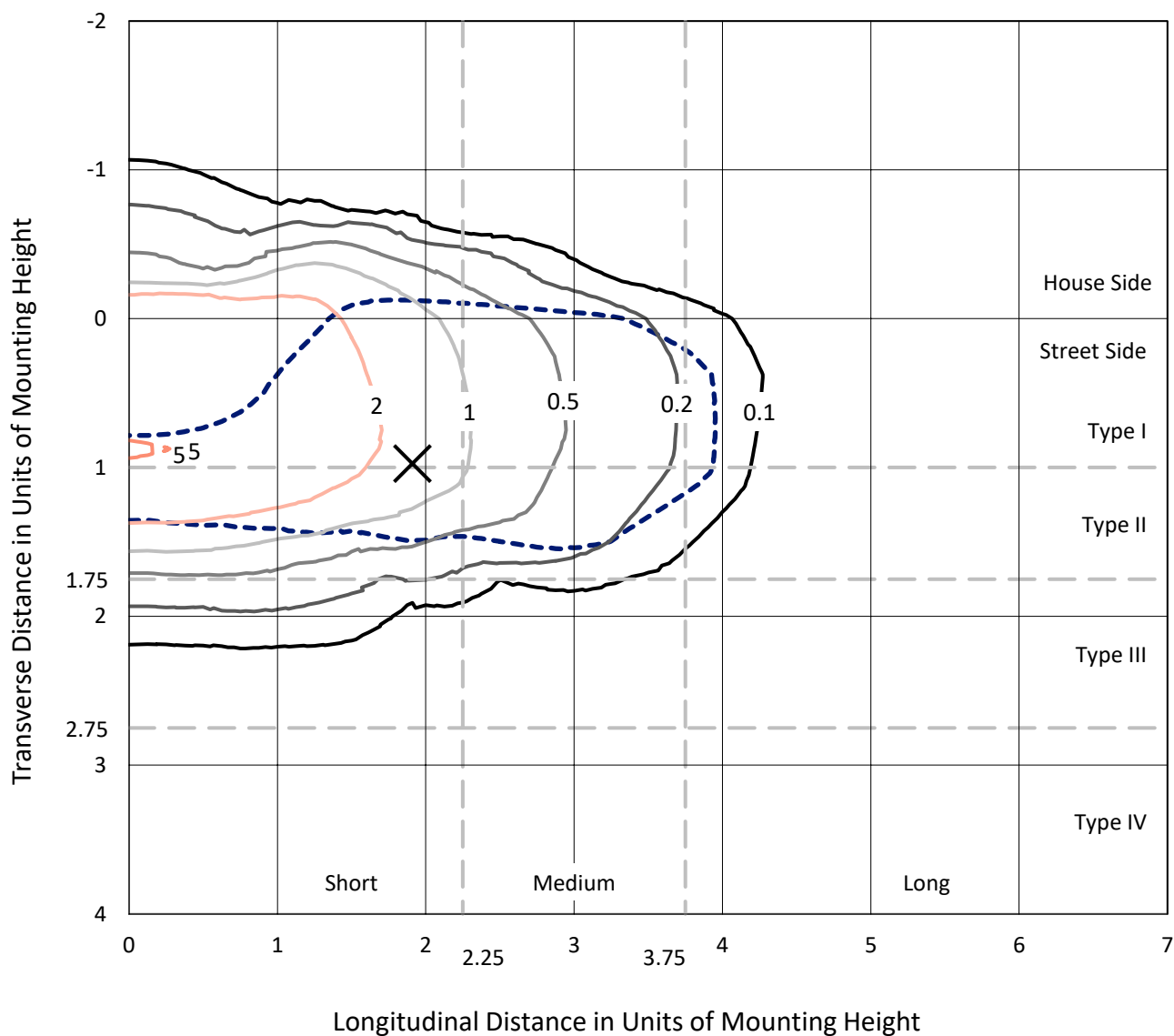
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

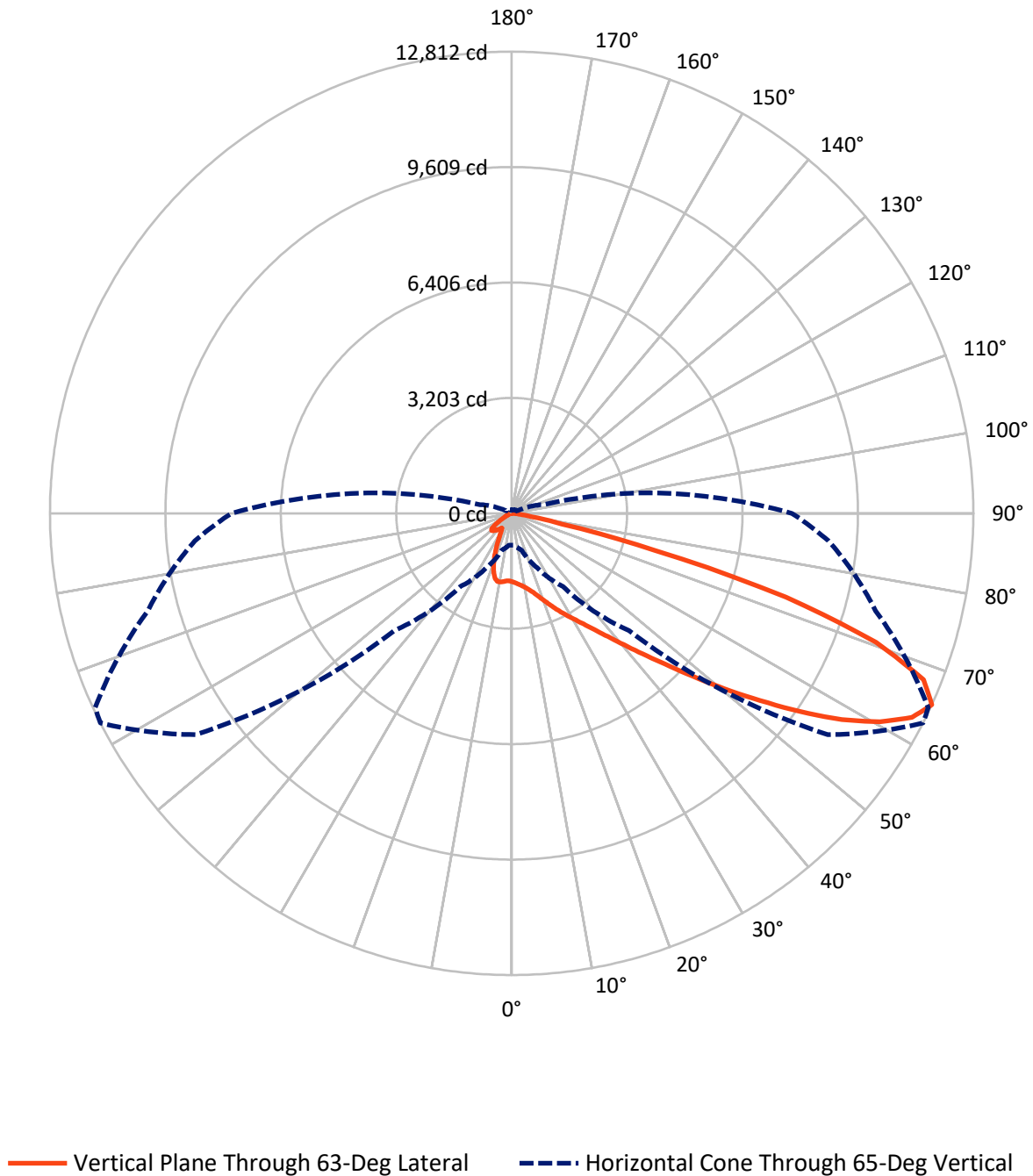


Based on 25 foot mounting height. Maximum calculated value = 5.2 fc

Type II - Short - N/A

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Luminous Intensity Polar Plot



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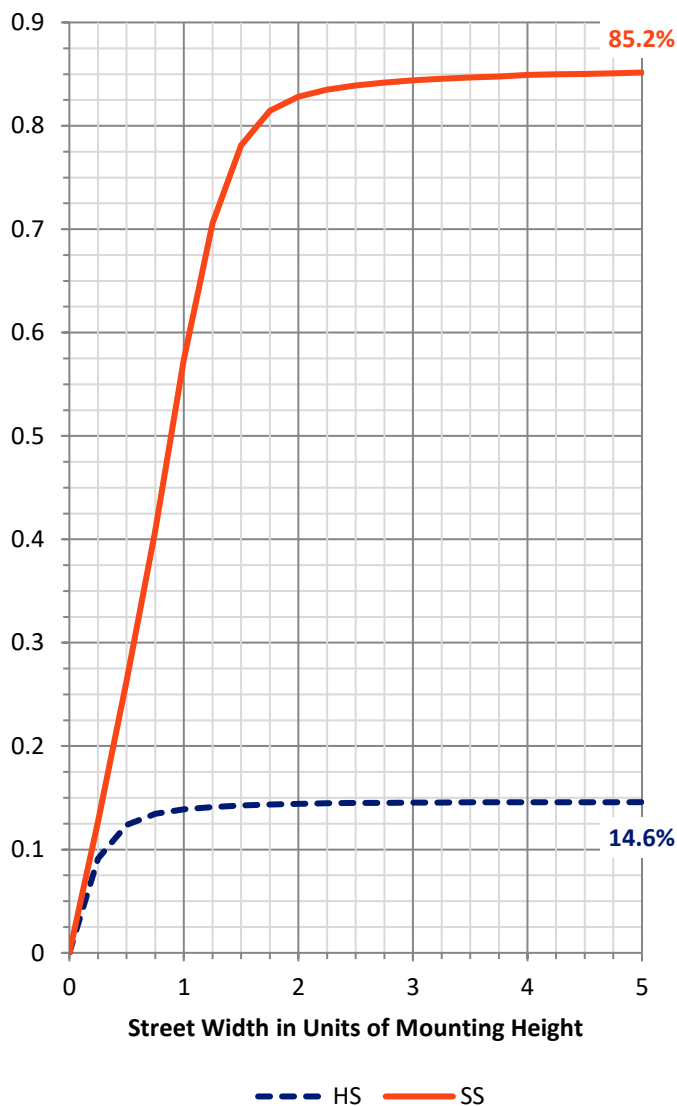
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2259.7	0.0	2259.7
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	13113.2	0.0	13113.2
	% Fixture	85.3	0.0	85.3
Total	Lumens	15372.9	0.0	15372.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	178.8	1.2
10°-20°	496.0	3.2
20°-30°	863.7	5.6
30°-40°	1556.7	10.1
40°-50°	3087.4	20.1
50°-60°	4205.5	27.4
60°-70°	3356.8	21.8
70°-80°	1519.0	9.9
80°-90°	109.2	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°	15372.9	100.0
0°-180°	15372.9	100.0

Coefficient of Utilization



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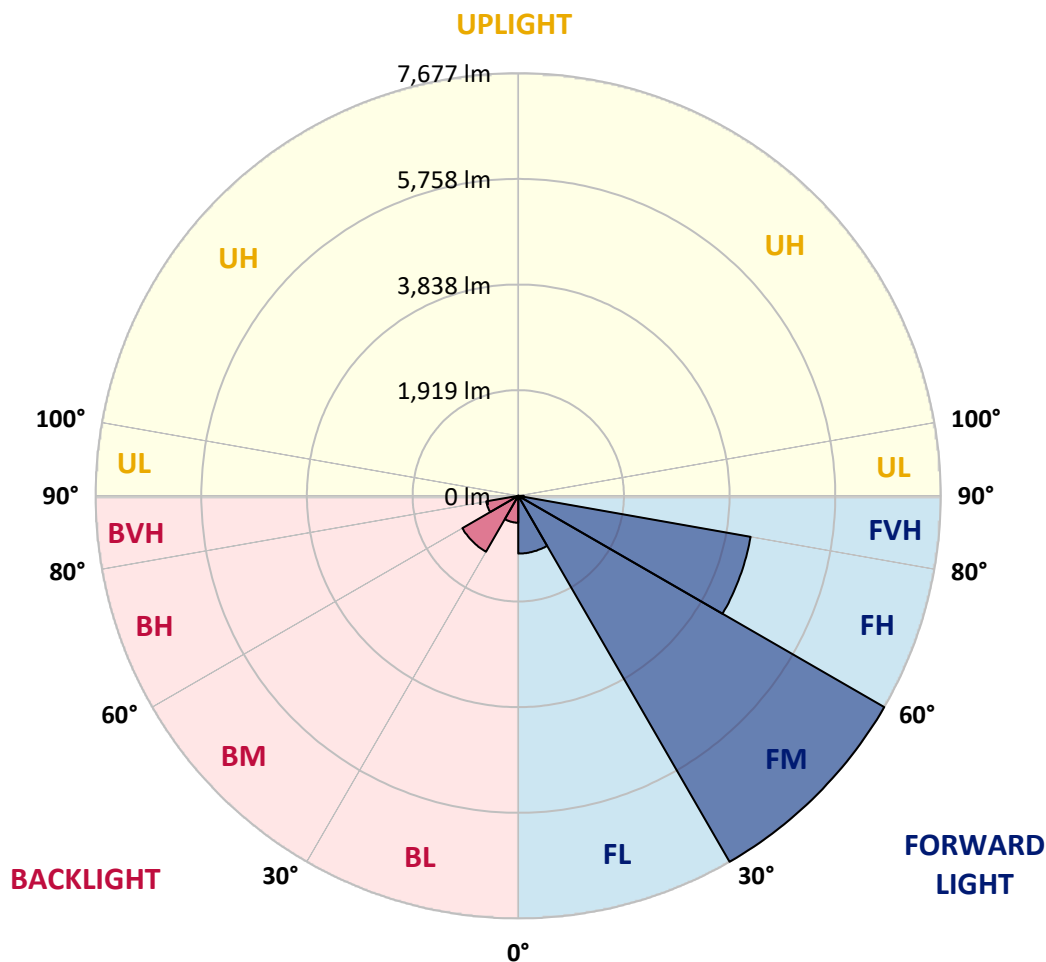
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1049.4	6.8			
FM	(30°-60°)	7676.9	49.9			
FH	(60°-80°)	4285.9	27.9			G2/5000
FVH	(80°-90°)	101.1	0.7			G2/225
BL	(0°-30°)	489.0	3.2	B1/500		
BM	(30°-60°)	1172.6	7.6	B2/2500		
BH	(60°-80°)	589.9	3.8	B2/1000		G2/1000
BVH	(80°-90°)	8.1	0.1			G0/10
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 Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	1897.3	1897.3	1897.3	1897.3	1897.3	1897.3	1897.3	1897.3	1897.3	1897.3	1897.3
2.5°	1941.8	1936.4	1943.8	1940.6	1938.6	1934.3	1932.2	1930.1	1925.9	1922.7	1910.0
5°	1947.0	1943.8	1951.3	1957.5	1963.9	1970.3	1973.4	1977.7	1973.4	1965.0	1952.3
7.5°	1902.6	1900.5	1916.3	1935.4	1963.9	1988.3	2014.7	2029.5	2030.5	2027.3	2013.6
10°	1899.4	1894.1	1910.0	1933.3	1970.3	2013.6	2060.1	2091.9	2096.1	2109.9	2095.1
12.5°	1949.1	1943.8	1966.1	1991.5	2029.5	2075.0	2132.1	2176.5	2182.8	2201.9	2191.3
15°	2032.7	2025.3	2050.6	2083.4	2132.1	2184.0	2244.2	2284.4	2289.6	2312.9	2294.0
17.5°	2130.0	2122.6	2152.2	2187.0	2239.9	2310.9	2380.7	2425.0	2431.4	2446.2	2411.3
20°	2254.8	2245.3	2268.5	2300.2	2356.3	2440.9	2524.5	2587.9	2586.9	2586.9	2529.7
22.5°	2399.6	2384.9	2405.0	2430.4	2483.2	2585.8	2696.9	2771.9	2771.9	2742.3	2648.2
25°	2555.1	2540.4	2562.5	2585.8	2632.3	2748.6	2878.7	2971.8	2976.1	2925.2	2775.1
27.5°	2749.8	2730.7	2747.6	2775.1	2802.7	2921.0	3075.5	3183.3	3185.5	3107.2	2895.6
30°	3124.1	3070.2	3017.3	2987.7	3000.4	3117.7	3282.8	3402.3	3412.8	3305.0	3026.8
32.5°	3809.4	3798.9	3612.7	3369.5	3242.6	3329.3	3514.3	3658.2	3664.6	3526.0	3197.1
35°	4874.4	4861.8	4562.5	4099.2	3685.7	3612.7	3795.7	3965.9	3961.7	3805.2	3418.2
37.5°	6145.6	6134.0	5739.5	5119.8	4450.3	4041.1	4158.4	4337.2	4363.6	4158.4	3703.6
40°	7231.8	7188.4	6938.8	6341.3	5465.6	4751.7	4674.5	4793.0	4820.5	4577.2	4066.4
42.5°	8054.6	8017.6	7890.7	7517.4	6694.5	5802.9	5282.6	5328.2	5358.8	5066.9	4483.1
45°	8480.7	8472.3	8523.1	8488.2	7946.7	7093.2	6151.9	5962.6	5974.3	5609.4	4955.9
47.5°	8541.1	8536.8	8768.5	9096.4	9023.4	8548.5	7267.8	6753.7	6712.5	6221.7	5469.8
50°	8185.8	8177.2	8621.5	9235.9	9742.5	9771.0	8534.8	7645.3	7554.4	6855.3	6006.1
52.5°	7051.0	7048.8	7778.5	8801.3	9995.3	10841.3	9786.9	8624.7	8472.3	7525.8	6572.9
55°	5425.4	5464.6	6301.1	7510.0	9534.1	11356.4	10911.1	9711.9	9478.1	8200.5	7095.4
57.5°	3843.2	3900.4	4727.4	5804.1	8104.3	11051.8	11671.6	10801.1	10549.4	8873.1	7625.2
60°	2064.5	2115.2	2943.3	4228.2	6029.4	9916.0	12072.3	11746.6	11508.7	9511.9	8103.2
62.5°	1230.0	1246.9	1589.6	2729.7	4078.1	7575.5	11902.1	12466.9	12271.2	10048.2	8518.9
65°	883.0	886.2	1058.6	1666.8	2475.8	4602.7	10708.1	12811.6	12751.3	10452.1	8826.6
67.5°	743.5	741.4	813.2	1107.3	1686.8	2305.5	8206.9	12324.1	12580.0	10708.1	9001.1
70°	637.8	640.9	725.5	811.2	1268.0	1305.0	4080.2	10730.3	11276.0	10775.7	8990.6
72.5°	474.9	485.4	563.6	739.2	957.1	897.9	1408.7	7956.3	8942.9	10152.8	8524.2
75°	335.3	340.5	396.6	621.9	713.9	653.5	719.1	4112.9	5377.9	7783.8	6976.9
77.5°	258.1	267.5	300.3	434.7	703.3	459.0	439.9	1423.5	2187.0	4702.1	4783.5
80°	139.6	156.5	216.8	314.1	493.8	324.7	217.8	566.8	741.4	2198.7	1844.4
82.5°	72.0	80.4	151.2	226.3	281.4	283.4	107.8	235.9	305.7	679.0	252.8
85°	28.6	34.8	101.6	124.8	144.9	139.6	48.7	95.2	110.0	188.3	77.2
87.5°	6.4	10.6	37.0	28.6	27.5	29.6	11.6	22.2	21.1	22.2	13.7
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°	1897.3	1897.3	1897.3	1897.3	1897.3	1897.3	1897.3	1897.3	1897.3	1897.3	1897.3
2.5°	1909.0	1904.8	1893.1	1880.4	1865.6	1857.1	1851.9	1850.7	1843.4	1838.1	1843.4
5°	1940.6	1936.4	1914.2	1887.8	1859.2	1837.0	1815.9	1796.8	1769.4	1764.0	1762.0
7.5°	2004.1	1992.5	1956.5	1920.5	1866.6	1802.2	1723.8	1634.0	1553.6	1529.3	1517.6
10°	2082.4	2066.5	2021.1	1957.5	1838.1	1662.6	1473.2	1297.6	1158.0	1118.9	1104.1
12.5°	2171.3	2157.5	2097.1	1979.8	1718.6	1400.3	1110.5	892.6	757.3	723.3	713.9
15°	2277.0	2256.8	2173.3	1946.0	1504.9	1063.9	762.5	633.4	584.9	578.5	572.2
17.5°	2389.1	2356.3	2241.1	1824.3	1217.3	756.1	589.1	552.1	530.9	524.6	521.4
20°	2491.7	2449.3	2281.2	1640.3	909.5	589.1	527.8	503.4	484.4	476.9	472.7
22.5°	2594.3	2534.0	2281.2	1389.7	682.1	522.4	484.4	462.2	439.9	430.4	425.2
25°	2701.1	2620.7	2241.1	1110.5	548.9	479.1	443.1	418.8	399.7	388.2	383.9
27.5°	2804.7	2693.7	2149.0	846.0	488.6	441.1	405.1	381.8	363.8	355.4	355.4
30°	2903.1	2765.6	2020.0	642.0	449.5	404.0	370.1	350.0	332.1	323.6	324.7
32.5°	3036.4	2856.6	1882.5	526.6	415.6	369.1	338.5	319.4	303.5	297.1	297.1
35°	3221.4	2990.8	1764.0	517.1	387.0	340.5	309.9	291.9	276.0	270.7	270.7
37.5°	3483.7	3207.6	1701.7	580.7	363.8	315.2	286.6	267.5	252.8	248.6	247.4
40°	3807.4	3501.7	1735.5	644.1	348.0	292.9	265.5	246.4	233.7	228.5	227.3
42.5°	4191.2	3864.5	1922.7	692.7	337.3	273.9	245.4	224.2	215.8	213.6	213.6
45°	4632.3	4263.2	2209.3	744.6	320.4	255.9	225.3	209.4	203.1	202.0	200.9
47.5°	5133.5	4701.0	2541.4	809.0	303.5	239.0	209.4	198.8	193.5	191.5	191.5
50°	5630.6	5142.0	2883.0	845.0	289.8	223.1	196.7	188.3	184.0	183.0	183.0
52.5°	6150.9	5595.7	3159.0	811.2	278.2	210.4	186.1	179.8	175.6	174.5	174.5
55°	6646.9	5962.6	3206.6	688.5	254.9	197.7	174.5	171.4	166.0	166.0	165.0
57.5°	7074.2	6146.7	2870.3	505.5	231.6	178.8	162.9	159.7	155.5	154.4	153.3
60°	7466.6	6093.8	2215.6	340.5	206.2	159.7	148.1	146.0	141.8	136.4	135.4
62.5°	7687.6	5861.2	1515.6	222.1	180.8	139.6	131.1	130.1	120.5	110.0	107.8
65°	7771.1	5383.1	945.5	161.8	151.2	119.5	113.2	111.0	97.3	85.7	84.6
67.5°	7698.2	4596.3	476.9	127.9	119.5	99.4	93.1	93.1	83.5	73.0	72.0
70°	7406.2	3445.6	200.9	102.6	92.0	76.2	76.2	80.4	70.8	59.2	58.1
72.5°	6772.8	2318.2	106.8	78.3	68.8	53.9	62.4	65.6	56.1	44.4	44.4
75°	5384.2	1414.0	74.0	58.1	43.4	38.0	47.6	49.7	38.0	29.6	28.6
77.5°	3682.5	812.2	49.7	37.0	27.5	22.2	32.8	30.6	20.1	13.7	14.8
80°	1617.0	338.5	28.6	16.9	10.6	8.5	11.6	8.5	6.4	4.2	4.2
82.5°	189.3	79.3	10.6	6.4	4.2	2.2	1.0	0.0	0.0	0.0	0.0
85°	39.2	9.5	5.3	2.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	7.4	2.2	1.0	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)