

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: P966184

Luminaire Tested: **NAV-SB4B-740-U-T2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966184
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-740-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24249.5 lumens
Efficiency: N/A
Efficacy: 165.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

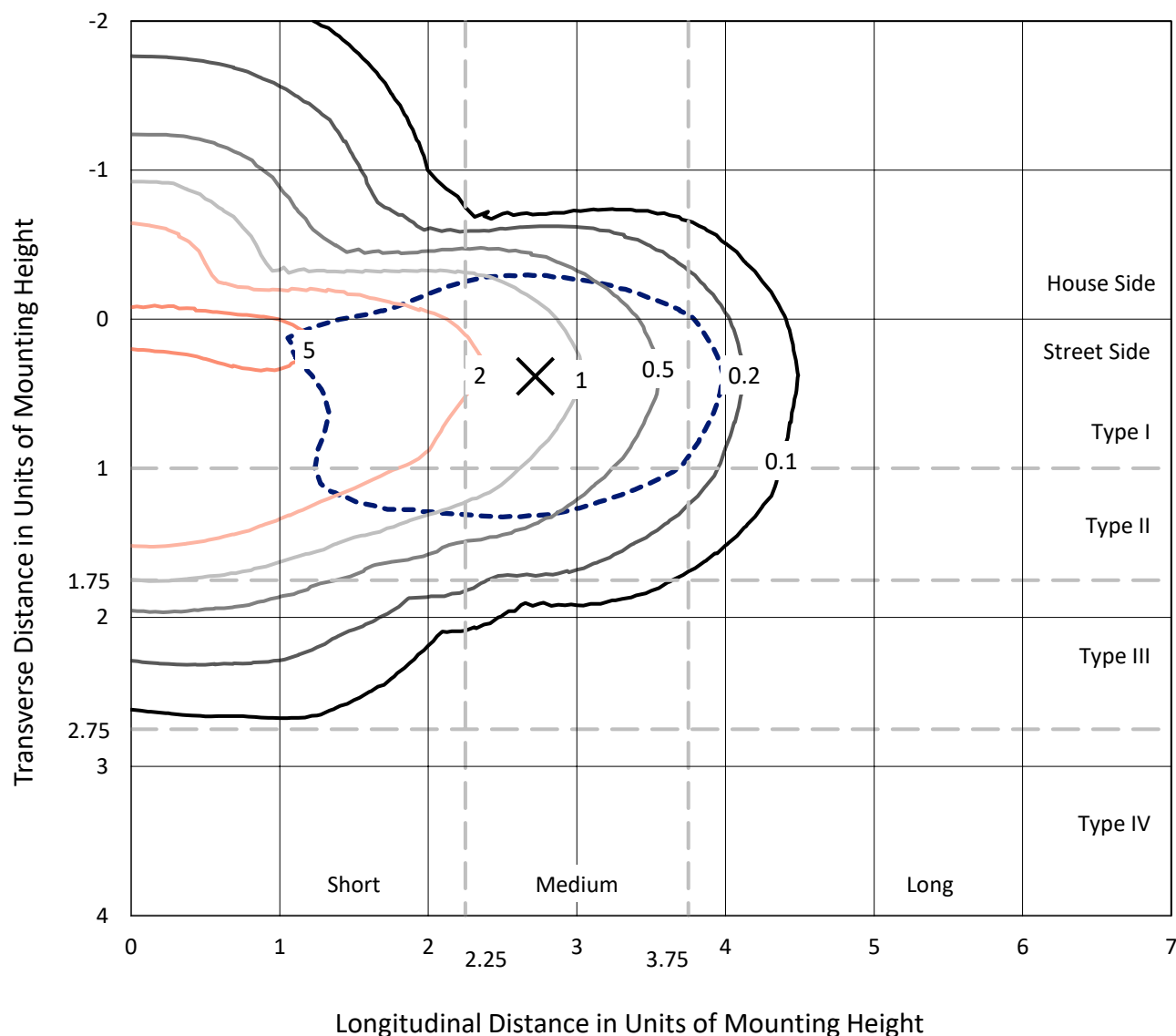
Input Watts (W): 147
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

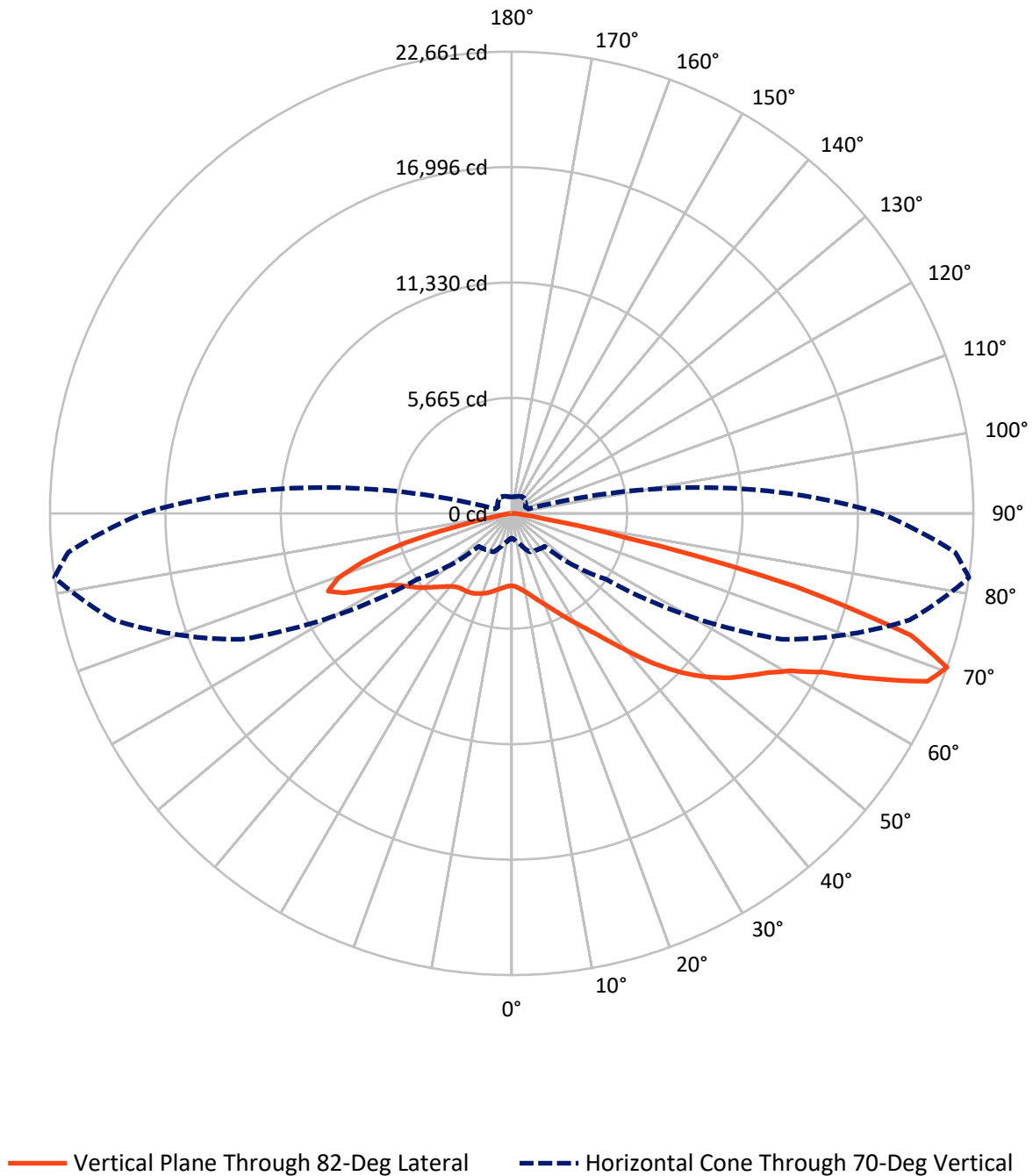
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.5 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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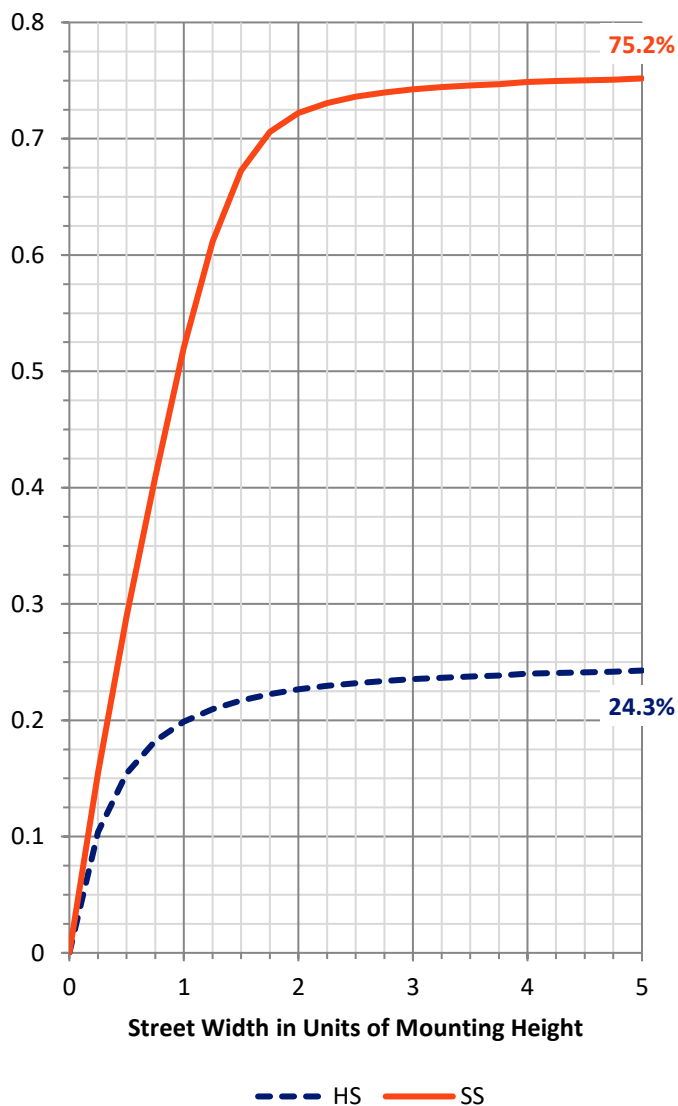
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5978.1	0.0	5978.1
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	18271.4	0.0	18271.4
	% Fixture	75.3	0.0	75.3
Total	Lumens	24249.5	0.0	24249.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	335.7	1.4
10°-20°	964.4	4.0
20°-30°	1613.4	6.7
30°-40°	2520.5	10.4
40°-50°	4014.3	16.6
50°-60°	5586.3	23.0
60°-70°	5843.5	24.1
70°-80°	3054.2	12.6
80°-90°	317.1	1.3
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°	24249.5	100.0
0°-180°	24249.5	100.0

Coefficient of Utilization



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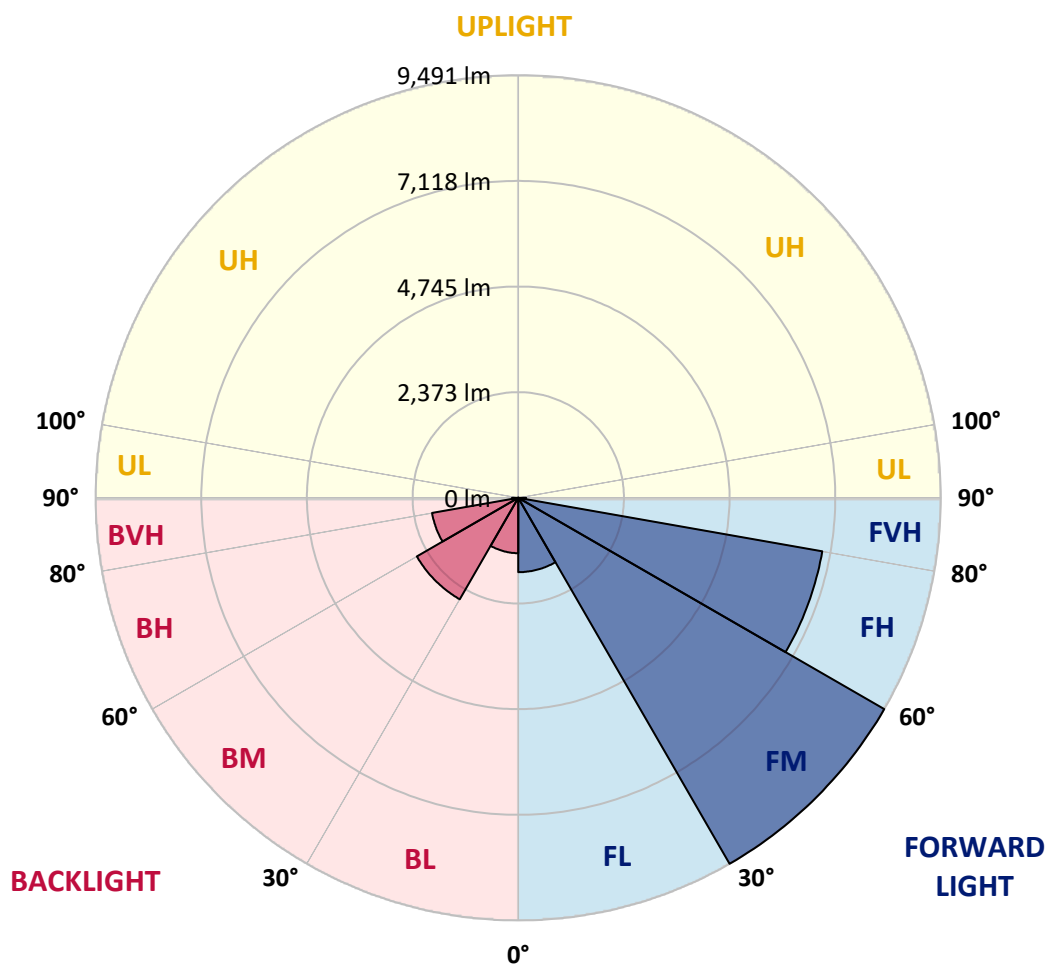
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1669.8	6.9			
FM	(30°-60°)	9491.0	39.1			
FH	(60°-80°)	6933.0	28.6			G3/7500
FVH	(80°-90°)	177.5	0.7			G2/225
BL	(0°-30°)	1243.7	5.1	B3/2500		
BM	(30°-60°)	2630.1	10.8	B3/5000		
BH	(60°-80°)	1964.7	8.1	B3/2500		G3/2500
BVH	(80°-90°)	139.6	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	3555.3	3555.3	3555.3	3555.3	3555.3	3555.3	3555.3	3555.3	3555.3	3555.3	3555.3
2.5°	3640.2	3660.8	3654.3	3647.9	3647.9	3639.0	3637.6	3624.7	3614.5	3597.7	3593.9
5°	3686.5	3708.3	3705.8	3711.0	3727.7	3731.5	3735.4	3727.7	3707.1	3686.5	3677.5
7.5°	3645.3	3669.8	3677.5	3708.3	3759.9	3806.2	3840.9	3855.1	3835.8	3806.2	3792.0
10°	3506.4	3533.4	3560.4	3633.7	3725.2	3834.5	3927.2	3982.4	3978.6	3950.3	3925.9
12.5°	3224.5	3252.8	3310.7	3453.6	3620.9	3813.9	3986.3	4102.2	4142.0	4121.4	4079.0
15°	2999.4	3023.9	3067.6	3214.3	3431.7	3725.2	4008.2	4233.4	4335.0	4323.4	4272.0
17.5°	2993.0	3003.2	3030.3	3099.8	3267.1	3586.2	3985.0	4362.1	4556.3	4555.1	4490.7
20°	3106.2	3110.1	3125.5	3139.7	3234.9	3480.6	3925.9	4468.9	4804.7	4804.7	4735.2
22.5°	3263.2	3260.6	3276.0	3263.2	3309.5	3471.7	3888.5	4562.8	5081.3	5101.9	5014.4
25°	3498.6	3485.8	3481.9	3452.3	3461.3	3555.3	3929.7	4669.6	5409.4	5452.0	5342.6
27.5°	3812.6	3792.0	3777.8	3709.7	3686.5	3727.7	4055.8	4798.2	5775.0	5848.2	5709.2
30°	4221.8	4184.5	4163.9	4045.6	3961.9	3968.3	4246.3	4969.4	6157.1	6275.5	6099.2
32.5°	4780.3	4722.4	4667.0	4472.7	4319.6	4269.4	4492.1	5206.2	6571.4	6760.6	6534.1
35°	5405.6	5359.3	5300.1	5000.3	4764.8	4649.0	4824.0	5536.8	7056.5	7356.3	7061.6
37.5°	6007.8	5968.0	5996.2	5592.2	5288.5	5120.0	5259.0	5980.8	7654.8	8097.5	7723.1
40°	6630.6	6599.7	6603.6	6217.5	5863.7	5674.5	5786.5	6538.0	8340.6	8978.9	8518.3
42.5°	7307.4	7284.3	7207.1	6864.7	6467.1	6290.9	6393.8	7181.4	9076.7	9982.6	9390.6
45°	8065.3	8051.2	7979.1	7586.6	7131.1	6933.0	7072.0	7891.6	9816.5	10927.0	10266.9
47.5°	8720.3	8731.9	8722.9	8392.2	7919.9	7629.1	7795.1	8632.8	10505.0	11814.9	11107.2
50°	9035.5	9096.0	9184.8	9081.8	8788.5	8492.5	8524.7	9348.2	11161.2	12647.4	11912.7
52.5°	8870.8	8985.4	9227.3	9392.0	9505.1	9443.4	9357.2	10058.4	11778.9	13398.9	12674.4
55°	8257.0	8417.9	8819.3	9216.9	9794.7	10243.7	10357.0	10845.9	12381.1	14060.2	13395.0
57.5°	7138.8	7400.1	7760.4	8564.6	9537.3	10631.1	11522.7	11938.4	13019.2	14766.7	14149.0
60°	5221.6	5571.6	6019.4	7216.1	8636.6	10423.9	12514.8	13616.3	13926.5	15681.6	15130.8
62.5°	3341.7	3557.9	3969.6	5096.8	6729.6	9362.3	12818.5	15713.8	15464.1	17181.9	16602.8
65°	2287.8	2426.8	2803.8	3436.9	4350.5	6969.0	12005.3	17286.1	17906.3	19559.8	19119.7
67.5°	1662.4	1768.0	2089.7	2644.3	2834.7	4124.0	9316.0	17214.1	20280.3	22009.7	21325.2
70°	1212.1	1286.8	1557.0	2089.7	2181.0	2294.3	5643.6	14632.8	20228.9	22660.8	21841.2
72.5°	898.1	949.7	1131.1	1621.3	1765.5	1549.3	2793.5	10634.9	17382.7	20496.5	19839.0
75°	649.8	688.4	822.3	1240.5	1412.9	1180.0	1393.6	6215.0	12125.0	14418.0	14533.8
77.5°	496.7	526.2	613.8	908.5	1131.1	885.3	864.7	2859.1	5749.1	5777.5	6101.7
80°	398.9	418.2	465.8	639.5	867.3	662.7	563.5	1154.3	1816.9	1537.7	1613.6
82.5°	293.4	325.5	393.7	449.1	620.2	456.8	343.6	582.9	691.0	594.5	599.6
85°	167.3	189.1	238.0	321.6	396.4	279.2	196.9	258.6	321.6	263.7	235.4
87.5°	59.1	77.2	83.6	126.1	172.4	115.8	76.0	74.6	105.5	78.5	65.6
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°	3555.3	3555.3	3555.3	3555.3	3555.3	3555.3	3555.3	3555.3	3555.3	3555.3	3555.3
2.5°	3581.0	3574.6	3548.9	3514.1	3478.0	3443.3	3431.7	3407.3	3390.6	3381.6	3391.8
5°	3653.1	3632.5	3572.0	3494.8	3413.8	3326.2	3264.4	3207.8	3166.6	3128.1	3143.5
7.5°	3756.0	3719.9	3615.8	3480.6	3336.5	3191.1	3083.0	3000.7	2945.3	2909.4	2917.0
10°	3875.6	3820.4	3660.8	3458.8	3236.1	3027.7	2900.3	2829.5	2794.8	2775.5	2780.6
12.5°	4013.4	3934.9	3707.1	3408.5	3083.0	2845.0	2757.5	2736.9	2738.2	2739.5	2742.1
15°	4183.2	4073.9	3744.4	3299.2	2883.6	2704.8	2689.3	2722.7	2757.5	2774.3	2772.9
17.5°	4374.9	4220.5	3750.9	3119.1	2688.0	2614.7	2663.6	2735.6	2788.4	2811.6	2816.7
20°	4580.8	4369.8	3704.6	2864.3	2527.1	2541.3	2628.8	2721.5	2779.4	2809.0	2816.7
22.5°	4816.3	4529.4	3593.9	2596.6	2395.9	2461.5	2564.4	2654.5	2715.0	2744.6	2752.3
25°	5085.2	4708.2	3420.1	2371.4	2282.7	2371.4	2474.5	2549.1	2598.0	2624.9	2632.7
27.5°	5383.7	4894.8	3188.6	2192.6	2183.6	2278.8	2363.8	2421.7	2447.4	2468.0	2475.7
30°	5683.5	5064.6	2908.0	2057.5	2097.4	2187.5	2247.9	2273.7	2281.4	2285.2	2294.3
32.5°	6007.8	5211.3	2613.3	1945.6	2015.0	2098.7	2134.7	2146.2	2110.3	2085.8	2093.6
35°	6400.3	5368.3	2325.1	1856.8	1934.0	2006.0	2017.6	2007.4	1964.8	1914.7	1917.3
37.5°	6885.3	5563.9	2094.8	1793.7	1858.0	1905.7	1891.5	1889.0	1892.8	1833.6	1837.5
40°	7479.8	5818.6	1926.3	1744.9	1796.3	1806.6	1766.7	1788.5	1807.9	1717.8	1720.4
42.5°	8139.9	6126.2	1819.5	1711.3	1744.9	1720.4	1658.7	1683.0	1680.5	1562.1	1560.9
45°	8812.9	6460.8	1782.2	1686.9	1697.2	1648.3	1580.1	1586.6	1532.5	1425.7	1429.6
47.5°	9482.0	6819.7	1805.3	1666.3	1638.1	1582.7	1529.9	1501.6	1421.9	1342.0	1342.0
50°	10138.3	7196.7	1890.2	1625.1	1557.0	1524.8	1486.1	1436.0	1351.1	1282.9	1277.8
52.5°	10746.9	7576.4	1985.4	1557.0	1455.3	1474.6	1450.2	1392.3	1308.6	1239.1	1240.5
55°	11323.4	7955.9	2022.7	1463.0	1360.1	1430.9	1416.8	1309.9	1209.5	1152.9	1147.8
57.5°	11951.3	8412.7	1981.6	1343.4	1282.9	1380.7	1326.7	1208.3	1150.4	1107.9	1104.0
60°	12821.1	9129.5	1892.8	1195.4	1209.5	1306.1	1213.4	1164.5	1101.5	1053.8	1051.2
62.5°	14266.2	10466.4	1750.0	1048.7	1123.3	1195.4	1159.4	1110.5	1046.1	999.8	999.8
65°	16402.2	12324.4	1481.0	934.2	1026.8	1087.3	1101.5	1052.6	985.6	936.7	939.3
67.5°	18203.6	13490.2	1120.7	839.0	927.7	999.8	1039.7	992.1	921.3	873.7	874.9
70°	18104.5	12643.6	855.7	745.1	840.2	913.6	965.0	927.7	851.8	806.8	810.7
72.5°	16080.4	10577.1	692.3	649.8	751.4	823.5	885.3	857.0	779.7	736.1	736.1
75°	11813.6	7508.1	553.3	553.3	640.8	729.6	797.8	779.7	709.0	678.1	669.1
77.5°	4979.7	3149.9	433.7	459.4	532.7	626.7	711.6	718.0	656.2	694.8	630.5
80°	1324.1	868.6	330.7	361.6	418.2	517.3	618.9	616.3	549.4	513.4	477.3
82.5°	504.4	342.2	235.4	254.8	302.4	396.4	490.3	505.7	438.8	379.6	379.6
85°	194.3	146.7	145.4	153.1	176.3	262.5	370.5	383.5	330.7	280.5	289.6
87.5°	50.2	43.8	54.0	51.5	81.1	140.2	212.3	220.1	202.0	117.1	167.3
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)