

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: P969341

Luminaire Tested: **NAV-SB5D-740-U-T2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969341
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-SB5D-740-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 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: 40704.8 lumens
Efficiency: N/A
Efficacy: 111.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
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



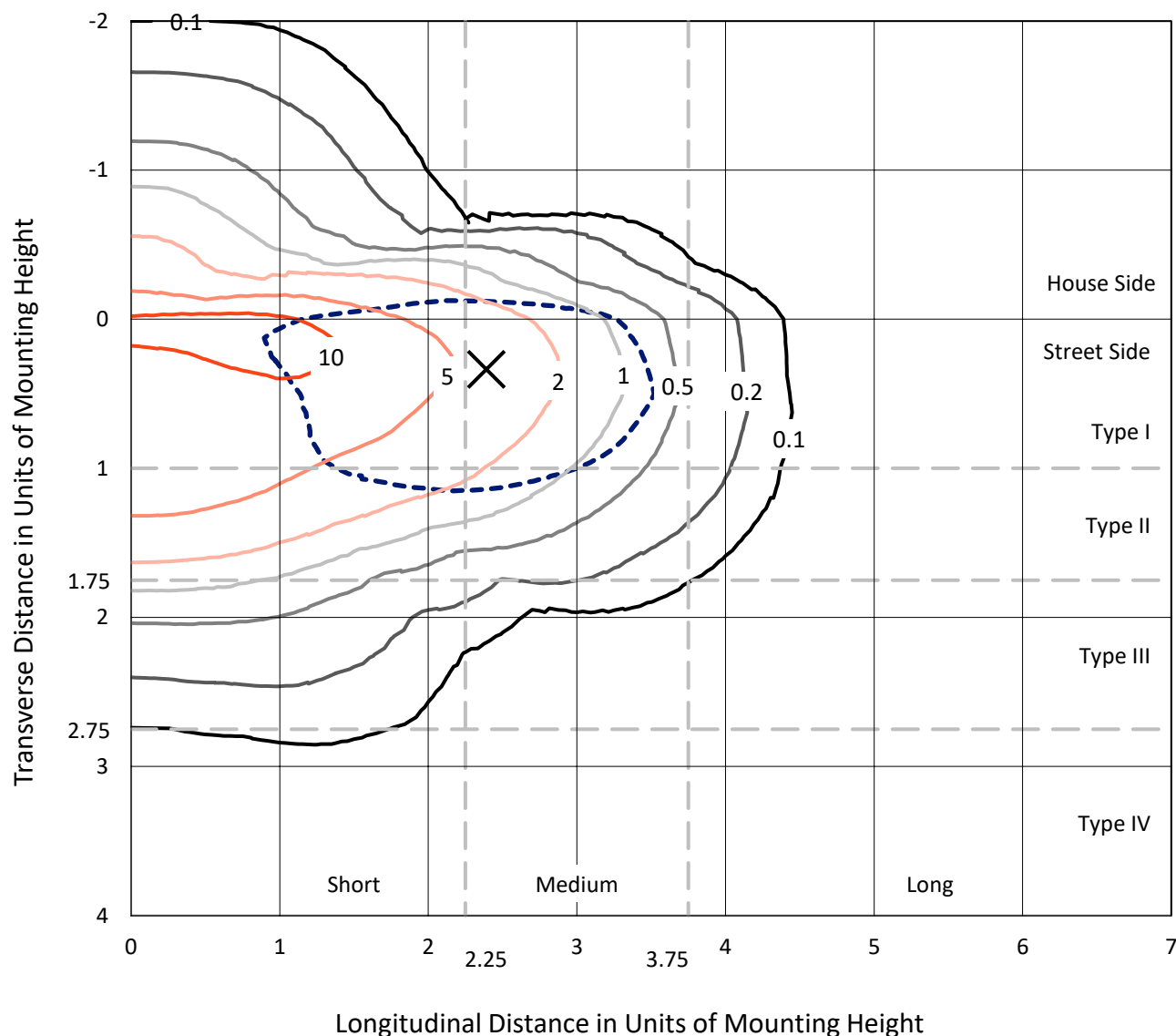
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

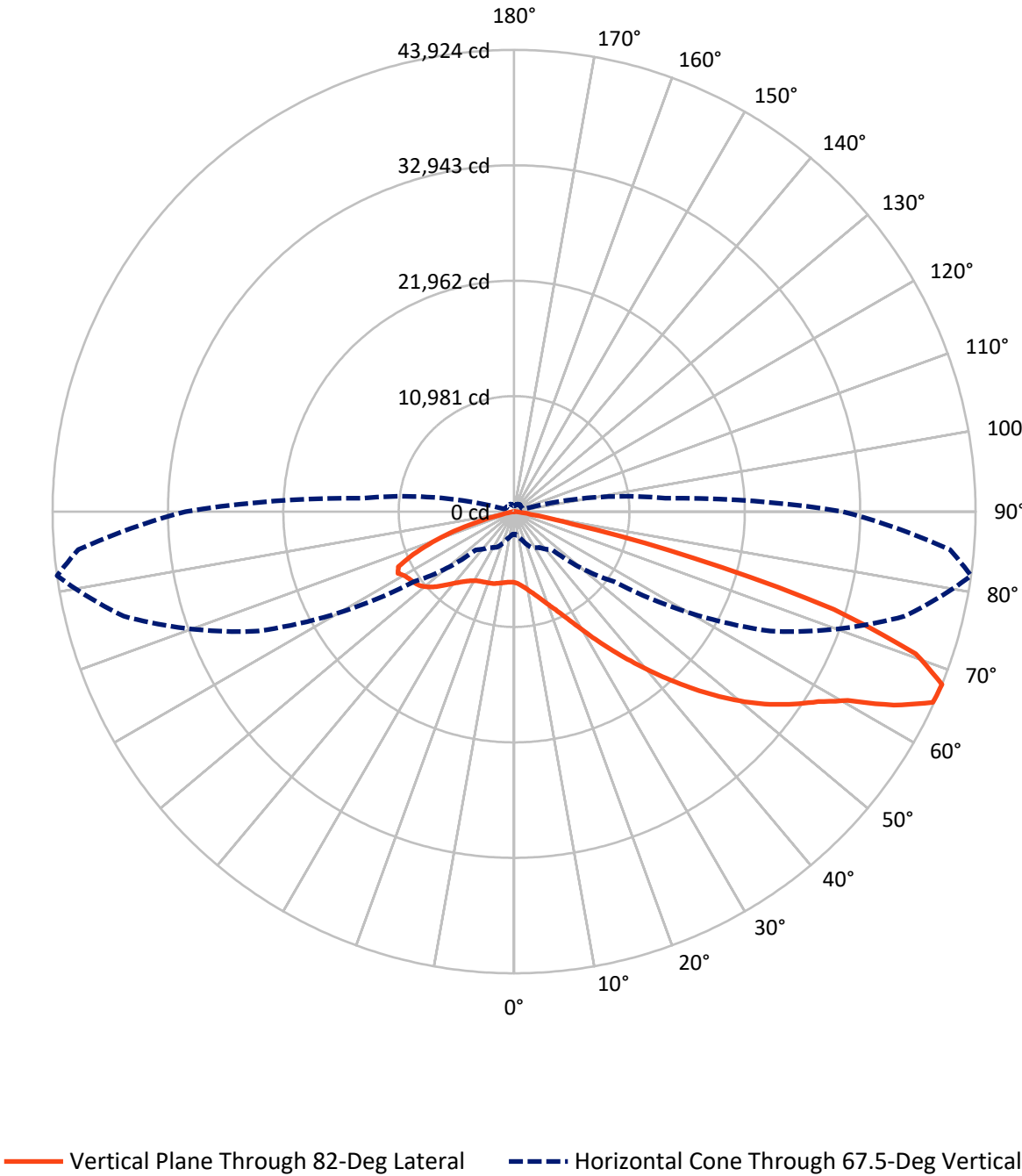
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 14.3 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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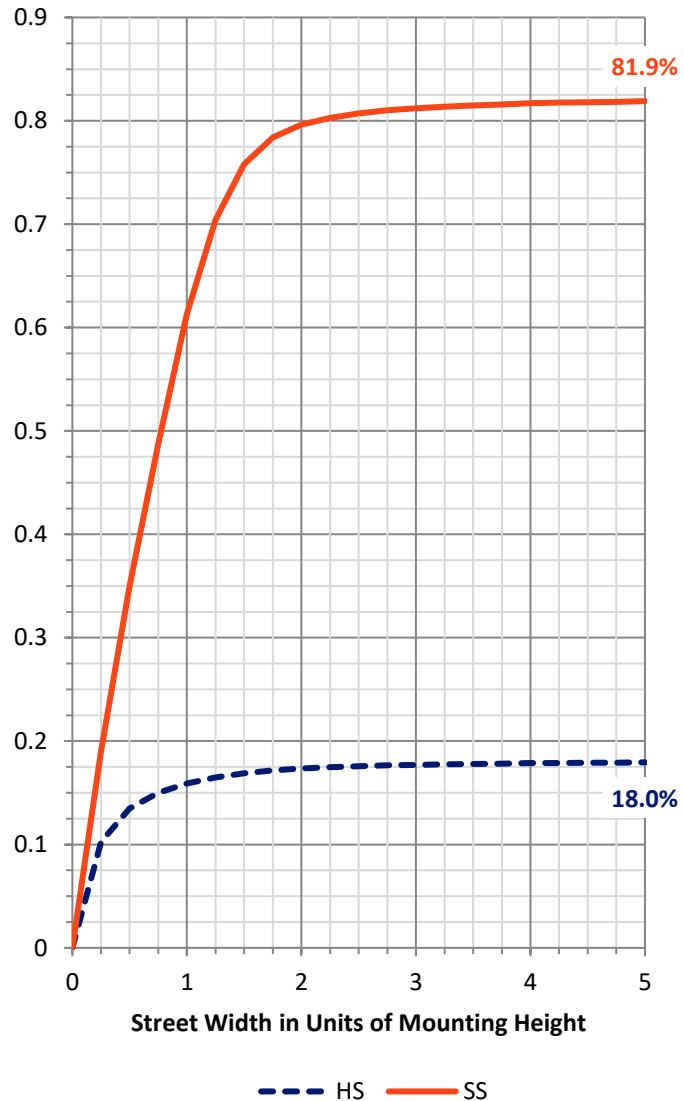
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7373.3	0.0	7373.3
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	33331.5	0.0	33331.5
	% Fixture	81.9	0.0	81.9
Total	Lumens	40704.8	0.0	40704.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	600.8	1.5
10°-20°	1561.2	3.8
20°-30°	2500.6	6.1
30°-40°	4421.7	10.9
40°-50°	7747.3	19.0
50°-60°	10332.8	25.4
60°-70°	9619.3	23.6
70°-80°	3691.9	9.1
80°-90°	229.3	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°	40704.8	100.0
0°-180°	40704.8	100.0

Coefficient of Utilization



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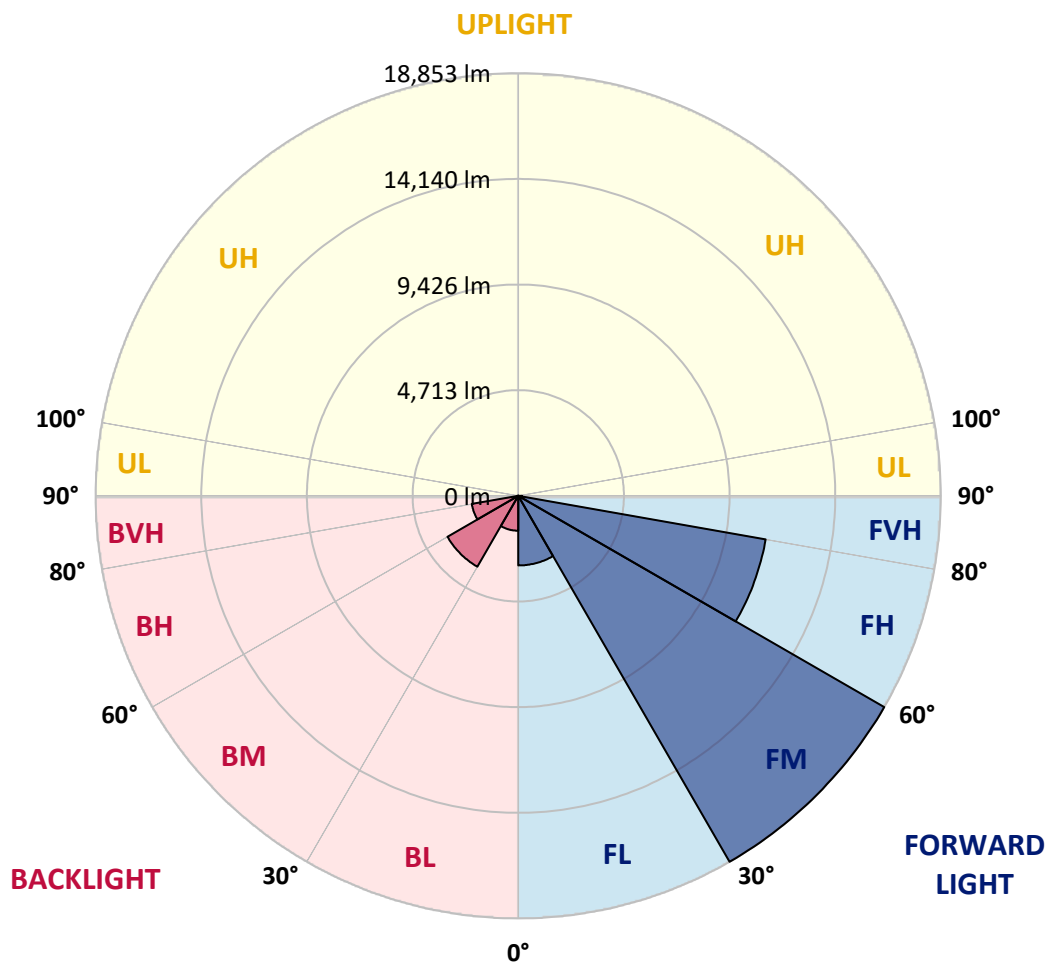
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3105.3	7.6			
FM	(30°-60°)	18852.8	46.3			
FH	(60°-80°)	11206.6	27.5			G4/12000
FVH	(80°-90°)	166.7	0.4			G2/225
BL	(0°-30°)	1557.2	3.8	B3/2500		
BM	(30°-60°)	3649.0	9.0	B3/5000		
BH	(60°-80°)	2104.5	5.2	B3/2500		G3/2500
BVH	(80°-90°)	62.6	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: 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°	6743.4	6743.4	6743.4	6743.4	6743.4	6743.4	6743.4	6743.4	6743.4	6743.4	6743.4
2.5°	7127.3	7168.3	7144.9	7133.2	7112.7	7083.4	7059.9	6986.6	6910.4	6860.6	6843.0
5°	7270.9	7311.9	7309.1	7320.8	7335.4	7344.2	7338.3	7256.3	7147.8	7062.9	7013.0
7.5°	7147.8	7194.7	7232.8	7291.4	7394.0	7502.5	7555.2	7537.6	7426.2	7309.1	7247.5
10°	6799.1	6848.9	6939.8	7077.5	7294.4	7528.8	7725.2	7816.0	7745.7	7616.8	7531.7
12.5°	6160.2	6210.1	6388.8	6687.7	7051.1	7458.5	7833.6	8076.9	8094.4	7965.5	7865.8
15°	5442.2	5492.1	5682.5	6057.6	6611.6	7265.1	7892.2	8352.3	8507.7	8396.3	8276.2
17.5°	4996.8	5040.7	5184.3	5486.2	6063.5	6878.3	7871.7	8645.4	9000.0	8912.1	8768.5
20°	4862.0	4900.0	4967.5	5178.4	5659.0	6476.8	7736.9	8920.9	9530.4	9480.6	9319.4
22.5°	5005.6	5040.7	5061.2	5155.0	5456.9	6212.9	7567.0	9202.2	10145.9	10151.7	9955.4
25°	5336.7	5371.8	5348.4	5407.1	5538.9	6130.9	7502.5	9533.4	10919.5	10984.0	10761.3
27.5°	5881.8	5884.7	5829.1	5826.1	5846.6	6254.0	7569.8	9888.0	11895.4	12015.7	11740.1
30°	6974.9	6930.9	6717.0	6485.5	6380.0	6623.2	7757.4	10307.1	13047.2	13261.1	12915.3
32.5°	8660.0	8595.5	8202.9	7649.0	7092.2	7218.2	8094.4	10784.7	14301.5	14688.4	14266.4
35°	10488.7	10471.2	10060.9	9237.4	8264.4	8065.1	8642.5	11411.9	15670.1	16285.6	15784.5
37.5°	12188.6	12179.8	11945.2	10975.3	9791.3	9246.2	9521.6	12232.5	17135.4	18026.4	17434.4
40°	13741.8	13768.1	13533.7	12666.2	11473.4	10761.3	10717.4	13246.5	18764.9	19922.5	19219.2
42.5°	15084.0	15113.3	14875.9	14234.2	13135.2	12437.7	12185.6	14489.1	20356.2	21959.3	21127.0
45°	15995.4	16177.2	16142.0	15629.1	14840.8	14116.9	13949.8	16048.2	22170.3	24119.2	23143.3
47.5°	16253.3	16420.4	16684.1	16754.4	16273.8	15561.8	15761.0	17926.7	24004.9	26282.0	25171.3
50°	15617.4	15772.7	16320.8	17050.5	17384.6	17164.8	17522.3	19940.0	25883.4	28438.9	27161.2
52.5°	14363.1	14521.4	15212.9	16367.6	17730.3	18422.0	19289.5	21924.1	27703.4	30481.7	29045.6
55°	12549.0	12716.0	13604.0	14911.1	17071.0	18940.8	20763.6	23905.3	29370.9	32319.2	30745.4
57.5°	10081.4	10204.5	11127.6	12956.4	15412.2	18425.0	21850.8	26068.1	30941.7	34124.4	32430.5
60°	6570.5	6678.9	7751.6	9791.3	12663.3	16701.8	22067.7	28479.9	33028.4	36471.9	34701.8
62.5°	4369.6	4442.9	5078.8	6576.4	8917.9	13393.1	20798.8	30405.4	36087.9	40557.2	38596.6
65°	2998.0	3071.3	3707.2	4750.6	5761.6	8859.4	17150.1	30150.5	38860.3	43801.4	41483.3
67.5°	2139.4	2200.9	2740.1	3724.8	4170.3	5146.2	11625.9	26891.6	38461.8	43924.4	41638.6
70°	1532.7	1567.9	2013.3	2901.4	3314.5	3091.8	6465.0	20567.2	33676.0	40560.1	38467.6
72.5°	1072.7	1084.3	1397.9	2209.7	2669.8	2256.6	3077.2	13712.4	25470.2	31835.6	29822.2
75°	726.8	741.5	940.7	1620.6	2142.2	1723.2	1629.4	7352.9	14952.2	17621.9	15796.2
77.5°	445.5	451.3	606.6	1107.8	1603.1	1312.9	1049.2	3115.3	5785.1	5679.6	4841.4
80°	252.0	252.0	386.8	688.7	1093.2	847.0	735.5	1324.6	1831.7	1608.9	1418.4
82.5°	140.6	143.6	281.4	427.8	723.9	501.1	404.5	612.5	791.3	700.4	609.6
85°	58.6	64.5	172.9	202.2	345.8	249.1	164.1	257.9	293.0	260.9	190.4
87.5°	5.8	8.8	52.8	38.1	41.0	49.8	23.5	49.8	41.0	41.0	29.3
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°	6743.4	6743.4	6743.4	6743.4	6743.4	6743.4	6743.4	6743.4	6743.4	6743.4	6743.4
2.5°	6787.3	6743.4	6632.1	6503.1	6333.2	6251.1	6139.6	6063.5	5999.0	6004.9	5946.2
5°	6919.3	6807.8	6558.8	6248.1	5861.3	5585.8	5292.7	5090.6	4926.5	4891.2	4812.1
7.5°	7101.0	6925.1	6488.5	5928.7	5275.2	4779.9	4337.4	4053.1	3850.8	3786.3	3721.9
10°	7335.4	7080.4	6397.6	5527.2	4586.5	3956.4	3481.6	3258.9	3121.1	3074.3	3039.1
12.5°	7608.0	7259.2	6277.4	5037.8	3877.3	3270.6	2968.7	2857.4	2813.4	2798.8	2789.9
15°	7950.8	7481.9	6095.8	4457.5	3276.4	2851.5	2722.6	2707.9	2713.8	2707.9	2705.0
17.5°	8358.2	7725.2	5799.8	3859.6	2872.0	2637.5	2590.7	2602.4	2617.0	2614.2	2608.3
20°	8803.6	7965.5	5421.7	3329.2	2596.5	2485.2	2458.8	2470.6	2482.2	2476.4	2473.4
22.5°	9310.7	8223.4	5002.6	2916.0	2411.9	2344.5	2315.2	2318.1	2318.1	2306.5	2300.5
25°	9917.3	8507.7	4563.0	2623.0	2271.3	2218.5	2183.4	2171.6	2154.0	2118.9	2113.0
27.5°	10641.1	8809.5	4141.0	2417.8	2159.9	2110.1	2069.1	2039.7	1995.8	1937.1	1931.3
30°	11455.9	9175.8	3783.5	2288.8	2071.9	2022.1	1975.3	1931.3	1866.8	1793.5	1787.7
32.5°	12414.2	9568.6	3522.6	2203.9	1992.8	1940.1	1884.4	1831.7	1761.4	1688.1	1690.9
35°	13557.2	10043.4	3370.2	2145.2	1931.3	1861.0	1799.4	1740.8	1688.1	1623.6	1617.8
37.5°	14796.8	10547.4	3323.4	2115.9	1890.3	1781.9	1711.5	1670.4	1664.6	1626.5	1623.6
40°	16153.7	11145.2	3358.5	2098.4	1846.3	1705.6	1629.4	1620.6	1635.3	1567.9	1570.8
42.5°	17589.7	11854.4	3417.1	2077.8	1784.7	1629.4	1556.2	1556.2	1544.5	1450.7	1450.7
45°	19143.0	12672.1	3475.8	2028.0	1711.5	1553.3	1497.5	1477.0	1427.2	1336.4	1333.4
47.5°	20707.9	13504.4	3519.7	1937.1	1623.6	1488.8	1438.9	1392.1	1318.8	1236.8	1233.8
50°	22193.7	14251.7	3472.8	1802.4	1524.0	1427.2	1374.4	1309.9	1230.8	1175.2	1166.3
52.5°	23521.3	14899.4	3273.5	1644.1	1418.4	1362.7	1315.9	1248.4	1184.0	1125.3	1119.5
55°	24676.1	15424.0	2921.9	1494.7	1324.6	1307.1	1260.1	1175.2	1087.2	1037.4	1031.6
57.5°	25783.8	15822.5	2482.2	1371.6	1239.6	1245.5	1175.2	1099.0	1016.9	964.2	958.3
60°	27257.9	16355.9	2036.8	1257.3	1148.8	1166.3	1090.2	1034.5	931.9	864.6	855.8
62.5°	29614.1	17185.3	1617.8	1116.5	1043.3	1049.2	1016.9	949.6	826.5	747.3	741.5
65°	31483.9	16880.5	1274.8	964.2	923.1	931.9	931.9	858.6	726.8	635.9	627.2
67.5°	31272.9	14453.9	1016.9	814.7	808.8	814.7	835.3	773.7	644.7	571.4	559.8
70°	28808.2	11496.9	814.7	677.0	703.4	688.7	747.3	706.3	580.3	507.0	498.3
72.5°	23506.6	8282.0	621.3	559.8	539.3	562.7	674.0	635.9	483.6	401.5	392.7
75°	13735.9	4419.4	463.0	442.5	389.8	468.9	597.9	542.1	369.3	296.0	287.2
77.5°	4472.2	1541.5	340.0	325.3	290.2	378.0	509.9	457.2	301.9	234.4	225.7
80°	1198.6	466.0	231.5	213.9	187.6	281.4	404.5	363.4	216.9	152.4	149.4
82.5°	480.6	196.4	134.8	120.1	102.6	193.4	319.4	293.0	161.2	96.8	96.8
85°	155.3	64.5	49.8	38.1	46.8	120.1	190.4	199.3	114.3	49.8	38.1
87.5°	20.5	8.8	8.8	11.7	8.8	20.5	58.6	55.7	32.3	5.8	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)