

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: P964229

Luminaire Tested: **NAV-SB3B-835-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P964229
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-SB3B-835-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 3500K, 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: 12275.4 lumens
Efficiency: N/A
Efficacy: 112.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

Input Watts (W): 109.2
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

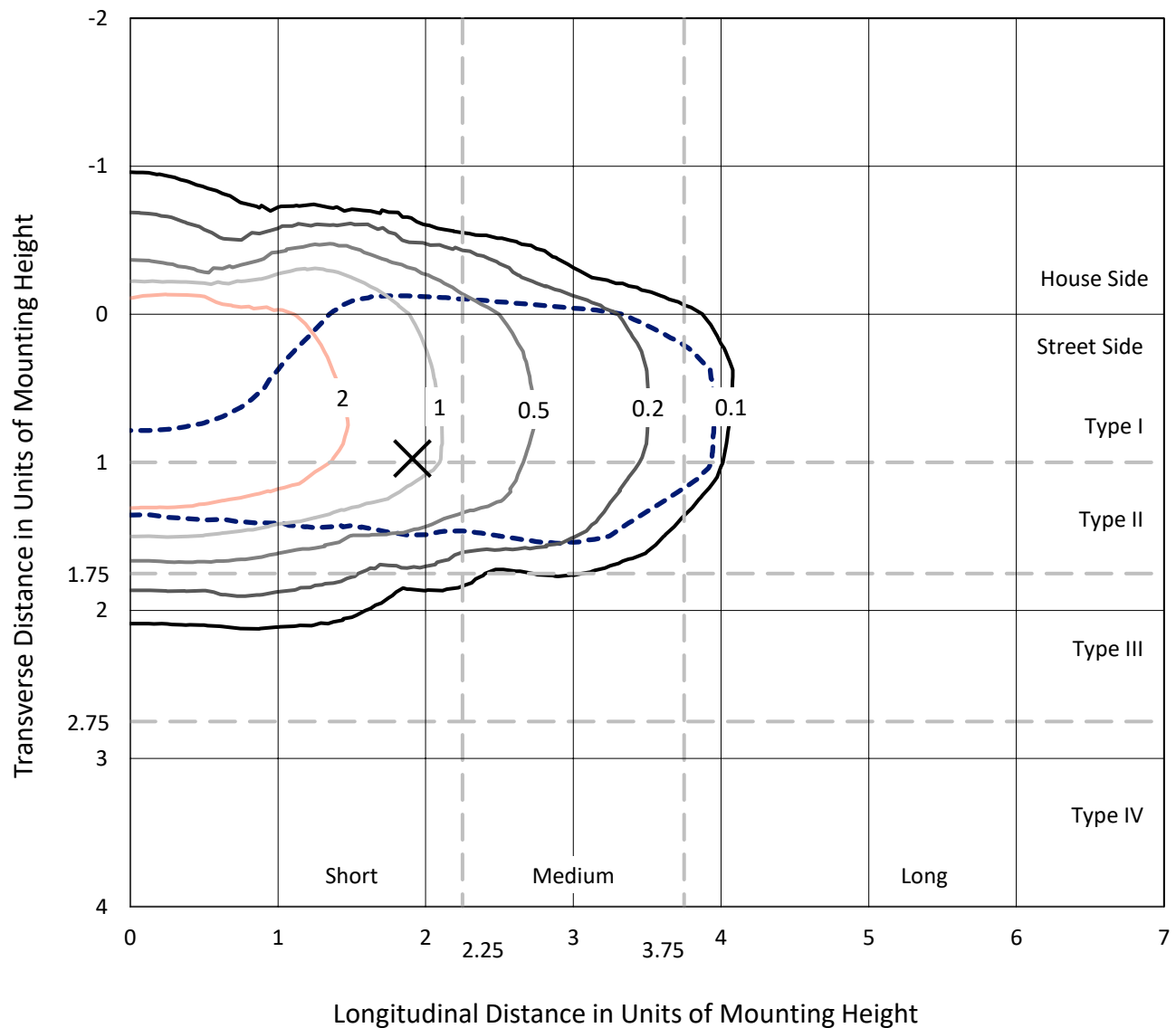


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Iso-Footcandle Lines of Horizontal Illumination

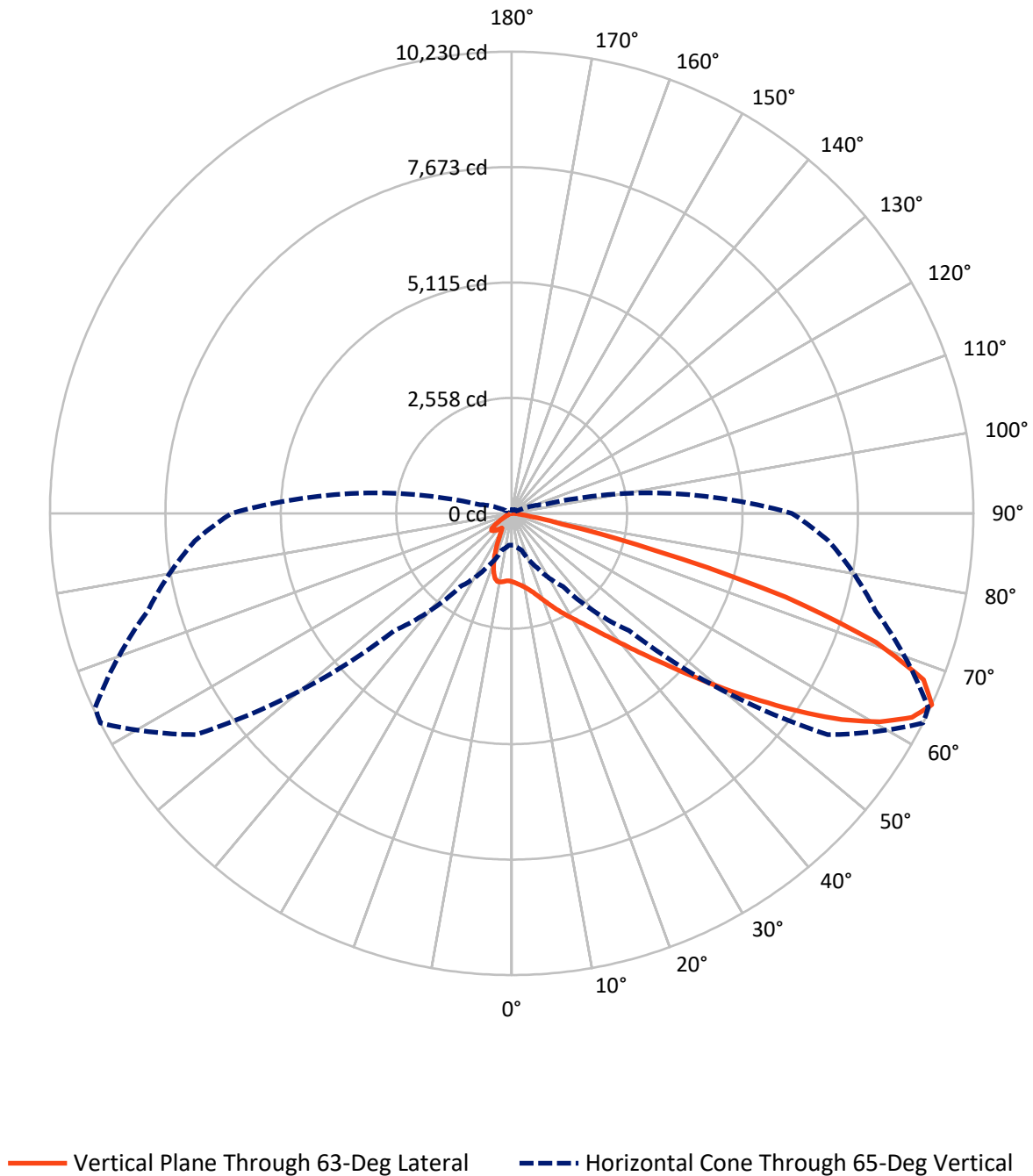
× Max cd
- - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



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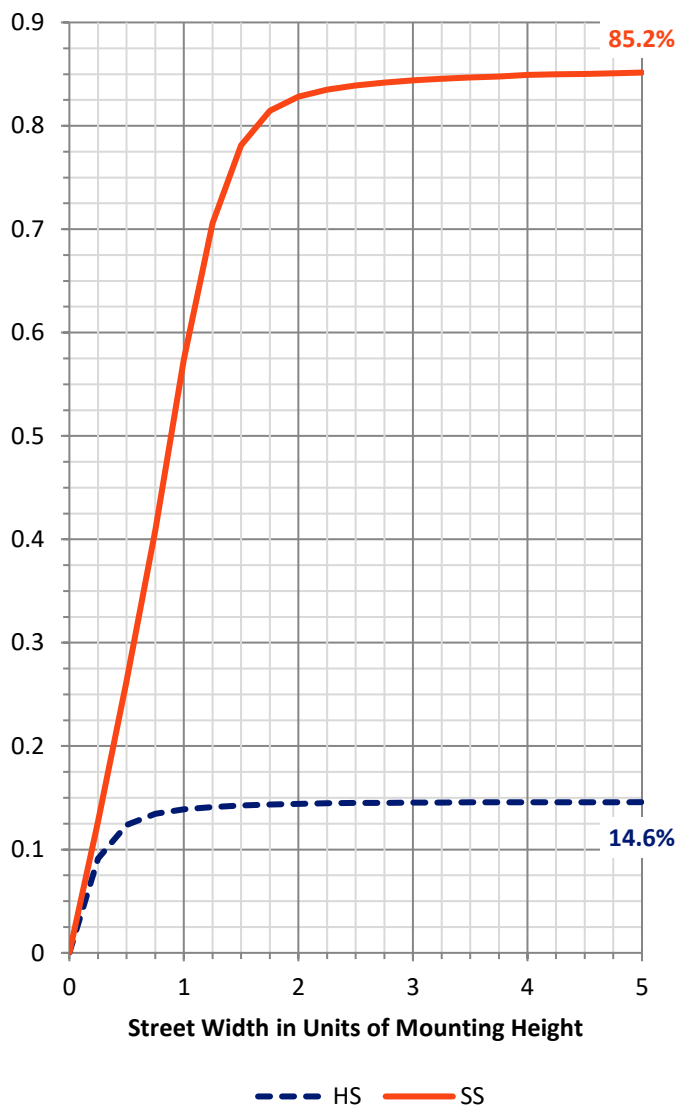
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1804.4	0.0	1804.4
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	10471.0	0.0	10471.0
	% Fixture	85.3	0.0	85.3
Total	Lumens	12275.4	0.0	12275.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.7	1.2
10°-20°	396.1	3.2
20°-30°	689.6	5.6
30°-40°	1243.0	10.1
40°-50°	2465.3	20.1
50°-60°	3358.1	27.4
60°-70°	2680.4	21.8
70°-80°	1212.9	9.9
80°-90°	87.2	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°	12275.4	100.0
0°-180°	12275.4	100.0

Coefficient of Utilization



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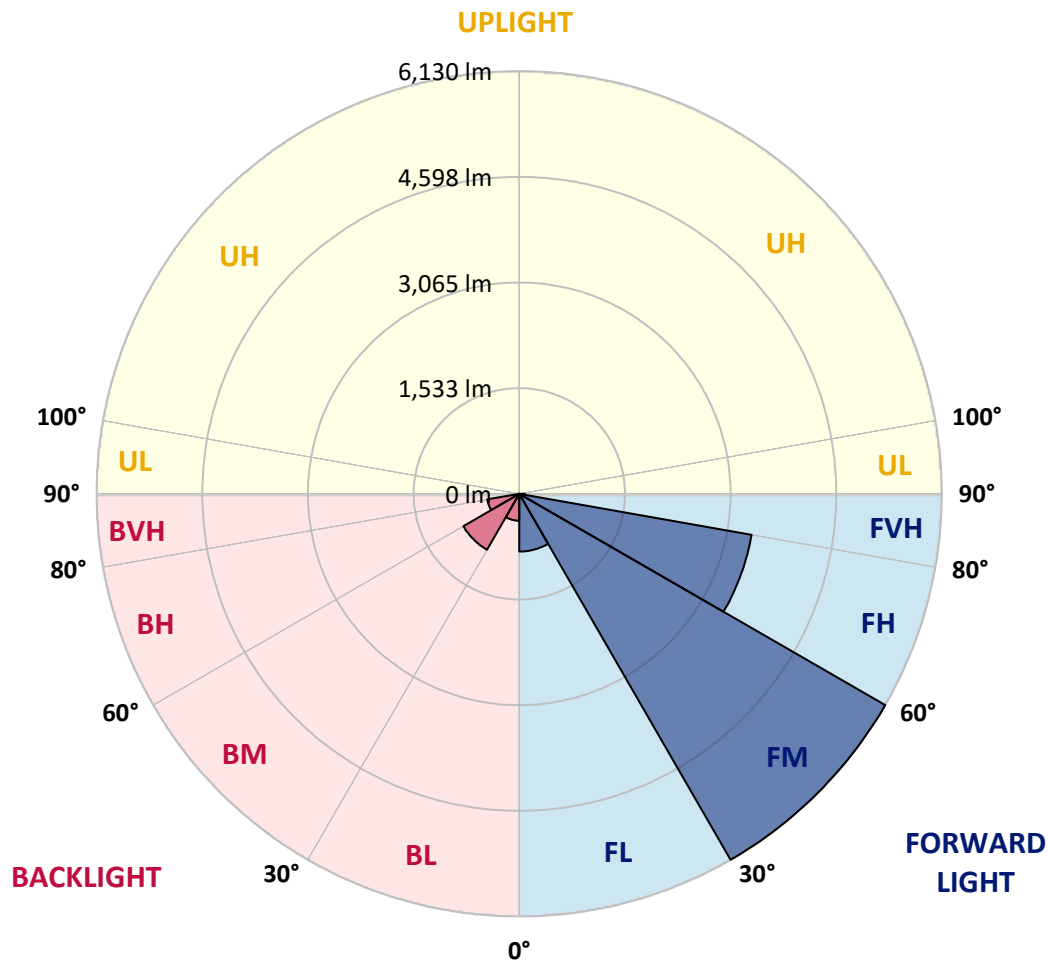
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	837.9	6.8			
FM	(30°-60°)	6130.0	49.9			
FH	(60°-80°)	3422.3	27.9			G2/5000
FVH	(80°-90°)	80.7	0.7			G1/100
BL	(0°-30°)	390.5	3.2	B1/500		
BM	(30°-60°)	936.4	7.6	B1/1000		
BH	(60°-80°)	471.0	3.8	B1/500		G1/500
BVH	(80°-90°)	6.5	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	1515.1	1515.1	1515.1	1515.1	1515.1	1515.1	1515.1	1515.1	1515.1	1515.1	1515.1
2.5°	1550.5	1546.2	1552.2	1549.6	1548.0	1544.6	1542.9	1541.2	1537.8	1535.2	1525.2
5°	1554.7	1552.2	1558.1	1563.1	1568.2	1573.3	1575.8	1579.2	1575.8	1569.1	1558.9
7.5°	1519.3	1517.5	1530.2	1545.4	1568.2	1587.6	1608.7	1620.6	1621.4	1618.9	1607.9
10°	1516.7	1512.5	1525.2	1543.8	1573.3	1607.9	1645.0	1670.4	1673.8	1684.8	1672.9
12.5°	1556.4	1552.2	1569.9	1590.2	1620.6	1656.9	1702.5	1738.0	1743.0	1758.2	1749.8
15°	1623.1	1617.2	1637.4	1663.7	1702.5	1743.8	1792.0	1824.1	1828.3	1846.9	1831.7
17.5°	1700.8	1694.9	1718.5	1746.4	1788.6	1845.2	1901.0	1936.4	1941.5	1953.3	1925.5
20°	1800.4	1792.8	1811.5	1836.8	1881.5	1949.0	2015.8	2066.5	2065.6	2065.6	2020.1
22.5°	1916.1	1904.3	1920.3	1940.6	1982.9	2064.8	2153.4	2213.4	2213.4	2189.8	2114.6
25°	2040.3	2028.5	2046.2	2064.8	2102.0	2194.8	2298.7	2373.0	2376.4	2335.9	2215.9
27.5°	2195.7	2180.5	2194.0	2215.9	2237.9	2332.5	2455.8	2541.9	2543.6	2481.1	2312.2
30°	2494.6	2451.6	2409.4	2385.7	2395.8	2489.5	2621.3	2716.8	2725.2	2639.1	2417.0
32.5°	3041.9	3033.4	2884.8	2690.5	2589.3	2658.4	2806.2	2921.0	2926.2	2815.6	2552.9
35°	3892.2	3882.1	3643.2	3273.2	2943.1	2884.8	3030.9	3166.8	3163.5	3038.5	2729.4
37.5°	4907.3	4898.1	4583.1	4088.2	3553.6	3226.8	3320.5	3463.3	3484.4	3320.5	2957.4
40°	5774.6	5740.0	5540.7	5063.6	4364.3	3794.3	3732.6	3827.2	3849.2	3654.9	3247.1
42.5°	6431.7	6402.0	6300.8	6002.6	5345.6	4633.7	4218.2	4254.6	4279.1	4046.0	3579.8
45°	6772.0	6765.2	6805.8	6777.9	6345.5	5664.0	4912.4	4761.2	4770.6	4479.1	3957.3
47.5°	6820.1	6816.8	7001.7	7263.5	7205.2	6826.0	5803.3	5392.9	5360.0	4968.2	4367.7
50°	6536.3	6529.6	6884.3	7375.0	7779.4	7802.3	6815.0	6104.8	6032.2	5474.0	4795.9
52.5°	5630.2	5628.5	6211.2	7027.8	7981.3	8656.8	7814.9	6886.9	6765.2	6009.4	5248.5
55°	4332.3	4363.5	5031.5	5996.8	7613.1	9068.2	8712.6	7754.9	7568.3	6548.2	5665.7
57.5°	3068.8	3114.5	3774.9	4634.5	6471.3	8824.9	9319.8	8624.8	8423.8	7085.3	6088.8
60°	1648.4	1689.0	2350.2	3376.2	4814.4	7917.9	9639.8	9379.8	9189.7	7595.4	6470.5
62.5°	982.2	995.7	1269.3	2179.7	3256.3	6049.0	9503.9	9954.9	9798.6	8023.5	6802.4
65°	705.2	707.7	845.3	1331.0	1976.9	3675.2	8550.4	10230.1	10182.0	8346.1	7048.1
67.5°	593.7	591.9	649.4	884.2	1347.0	1841.0	6553.2	9840.8	10045.2	8550.4	7187.5
70°	509.2	511.8	579.3	647.7	1012.5	1042.1	3258.1	8568.2	9004.0	8604.5	7179.0
72.5°	379.1	387.7	450.1	590.3	764.2	717.0	1124.8	6353.1	7141.0	8107.1	6806.6
75°	267.7	271.9	316.7	496.5	570.0	521.9	574.2	3284.2	4294.2	6215.5	5571.1
77.5°	206.0	213.6	239.8	347.1	561.6	366.5	351.3	1136.7	1746.4	3754.6	3819.7
80°	111.5	124.9	173.1	250.8	394.4	259.2	173.9	452.6	591.9	1755.7	1472.8
82.5°	57.4	64.2	120.7	180.7	224.7	226.3	86.1	188.3	244.1	542.1	201.8
85°	22.8	27.9	81.1	99.6	115.7	111.5	38.8	76.1	87.8	150.4	61.6
87.5°	5.0	8.4	29.5	22.8	21.9	23.7	9.3	17.7	16.9	17.7	11.0
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°	1515.1	1515.1	1515.1	1515.1	1515.1	1515.1	1515.1	1515.1	1515.1	1515.1	1515.1
2.5°	1524.3	1520.9	1511.7	1501.5	1489.6	1483.0	1478.7	1477.8	1471.9	1467.7	1471.9
5°	1549.6	1546.2	1528.5	1507.4	1484.6	1466.9	1450.0	1434.8	1412.9	1408.7	1406.9
7.5°	1600.3	1591.0	1562.3	1533.6	1490.6	1439.0	1376.5	1304.7	1240.6	1221.1	1211.9
10°	1662.8	1650.1	1613.9	1563.1	1467.7	1327.6	1176.4	1036.2	924.8	893.5	881.6
12.5°	1733.8	1722.7	1674.6	1580.9	1372.3	1118.1	886.7	712.8	604.6	577.6	570.0
15°	1818.1	1802.2	1735.4	1553.9	1201.7	849.5	608.8	505.8	467.0	462.0	456.8
17.5°	1907.7	1881.5	1789.4	1456.7	972.0	603.8	470.4	440.9	423.9	418.9	416.4
20°	1989.6	1955.8	1821.5	1309.8	726.2	470.4	421.4	402.0	386.7	380.9	377.5
22.5°	2071.5	2023.4	1821.5	1109.7	544.7	417.2	386.7	369.0	351.3	343.7	339.5
25°	2156.8	2092.6	1789.4	886.7	438.3	382.5	353.8	334.5	319.2	310.0	306.6
27.5°	2239.6	2151.0	1716.1	675.6	390.1	352.2	323.5	304.8	290.5	283.7	283.7
30°	2318.1	2208.4	1612.9	512.6	359.0	322.6	295.6	279.5	265.2	258.4	259.2
32.5°	2424.5	2280.9	1503.2	420.6	331.9	294.7	270.2	255.0	242.4	237.3	237.3
35°	2572.3	2388.2	1408.7	413.0	309.0	271.9	247.4	233.1	220.4	216.2	216.2
37.5°	2781.7	2561.4	1358.7	463.6	290.5	251.6	228.9	213.6	201.8	198.4	197.6
40°	3040.1	2796.1	1385.8	514.3	277.9	233.9	212.0	196.8	186.7	182.4	181.5
42.5°	3346.7	3085.8	1535.2	553.2	269.4	218.7	195.9	179.1	172.3	170.6	170.6
45°	3698.9	3404.1	1764.1	594.5	255.8	204.4	179.9	167.2	162.2	161.3	160.4
47.5°	4099.2	3753.8	2029.3	646.1	242.4	190.9	167.2	158.8	154.6	152.8	152.8
50°	4496.1	4105.9	2302.0	674.8	231.3	178.1	157.0	150.4	147.0	146.1	146.1
52.5°	4911.6	4468.2	2522.5	647.7	222.1	168.1	148.6	143.6	140.2	139.3	139.3
55°	5307.7	4761.2	2560.4	549.8	203.6	158.0	139.3	136.8	132.6	132.6	131.7
57.5°	5648.8	4908.2	2291.9	403.6	184.9	142.7	130.1	127.5	124.1	123.3	122.5
60°	5962.1	4866.0	1769.3	271.9	164.7	127.5	118.2	116.5	113.2	109.0	108.1
62.5°	6138.6	4680.2	1210.1	177.3	144.4	111.5	104.8	103.8	96.2	87.8	86.1
65°	6205.3	4298.4	755.0	129.3	120.7	95.4	90.4	88.7	77.7	68.4	67.5
67.5°	6147.0	3670.1	380.9	102.2	95.4	79.3	74.3	74.3	66.7	58.2	57.4
70°	5913.9	2751.3	160.4	81.9	73.5	60.8	60.8	64.2	56.6	47.3	46.4
72.5°	5408.1	1851.2	85.3	62.5	54.9	43.0	49.8	52.4	44.8	35.5	35.5
75°	4299.3	1129.0	59.1	46.4	34.6	30.4	38.0	39.7	30.4	23.7	22.8
77.5°	2940.5	648.6	39.7	29.5	21.9	17.7	26.1	24.5	16.1	11.0	11.8
80°	1291.2	270.2	22.8	13.5	8.4	6.8	9.3	6.8	5.0	3.4	3.4
82.5°	151.2	63.3	8.4	5.0	3.4	1.6	0.8	0.0	0.0	0.0	0.0
85°	31.3	7.6	4.2	1.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.9	1.6	0.8	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)