

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: P966848

Luminaire Tested: **NAV-SB4C-835-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966848
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-14)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-835-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29021.9 lumens
Efficiency: N/A
Efficacy: 144.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

Input Watts (W): 200.7
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

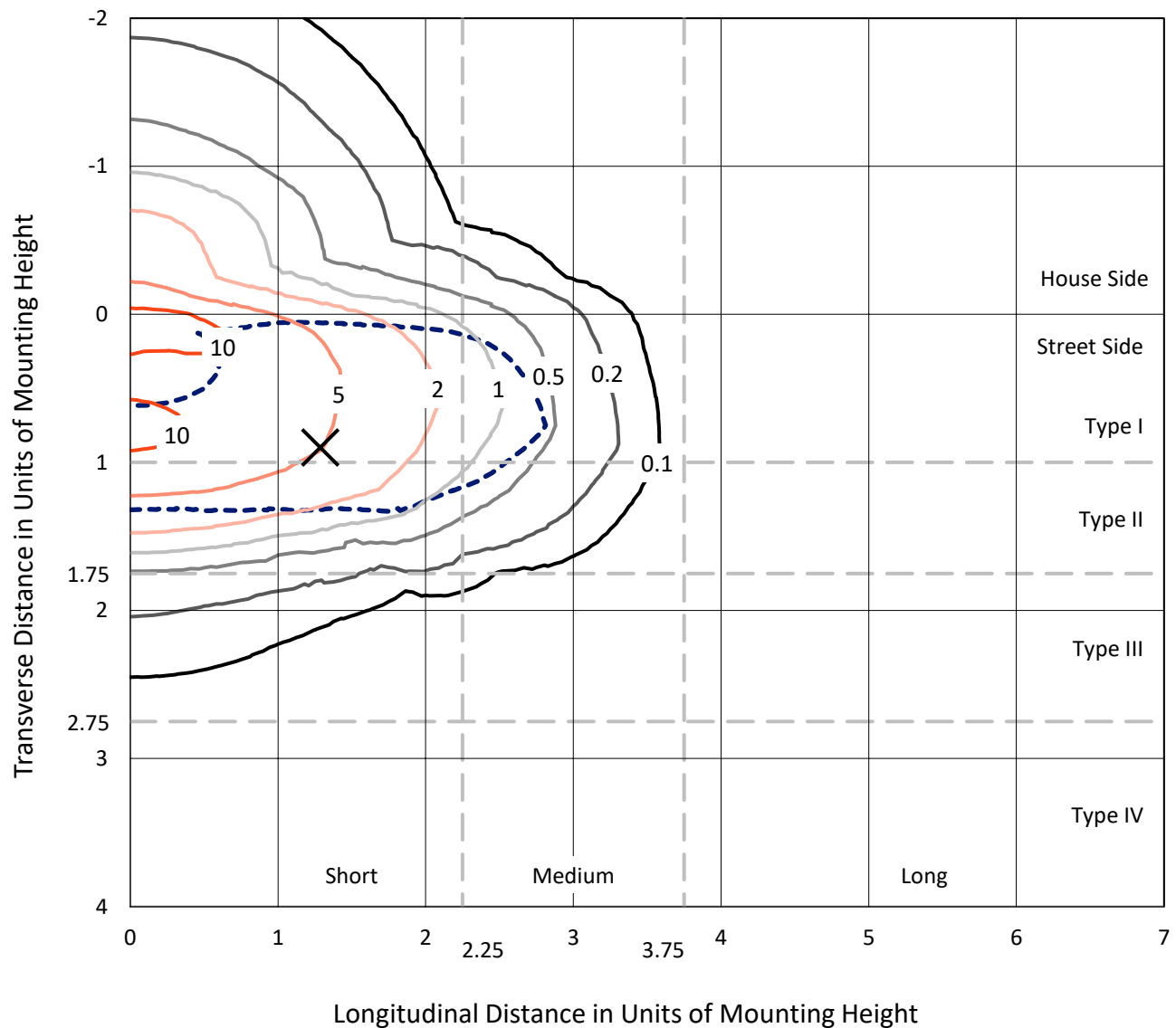


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

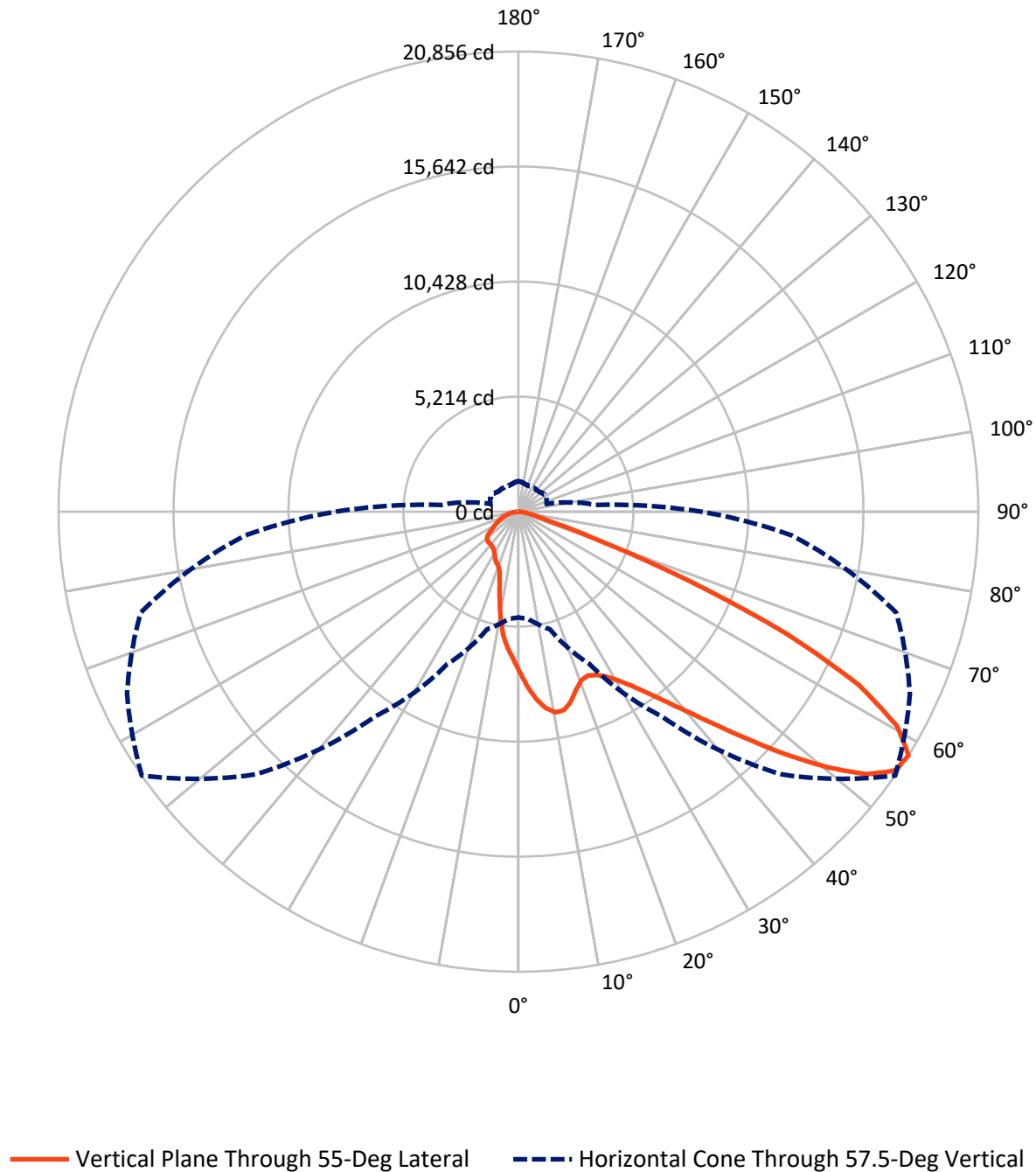


Based on 25 foot mounting height. Maximum calculated value = 14.1 fc

Type II - Short - N/A

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Luminous Intensity Polar Plot



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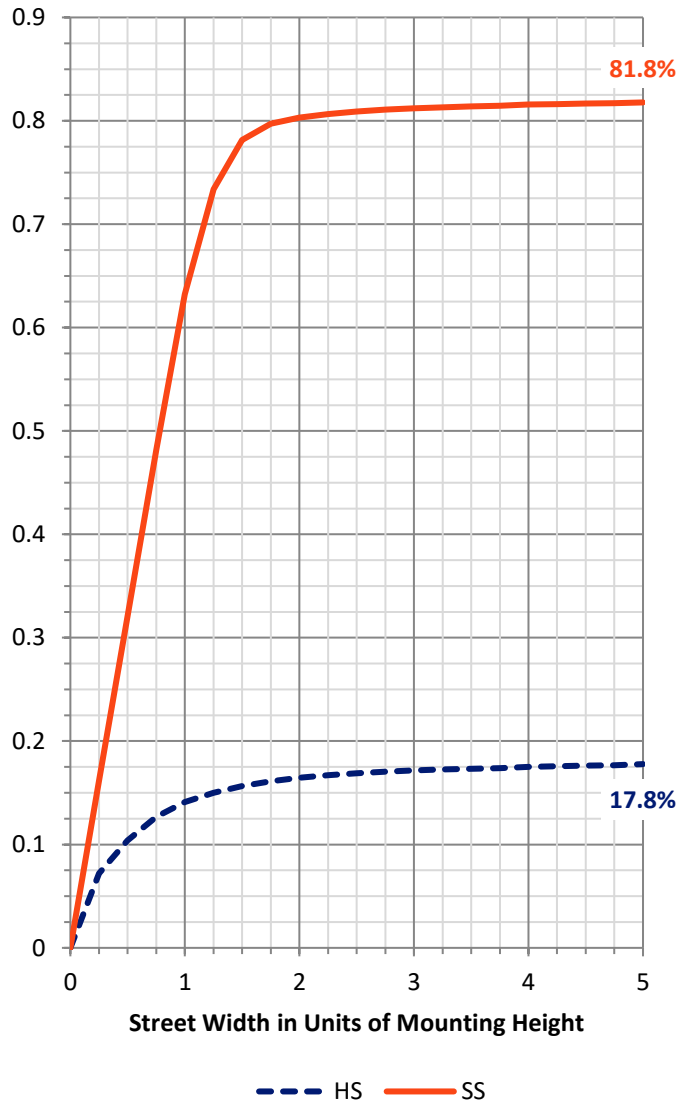
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5251.4	0.0	5251.4
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	23770.5	0.0	23770.5
	% Fixture	81.9	0.0	81.9
Total	Lumens	29021.9	0.0	29021.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	674.8	2.3
10°-20°	1703.2	5.9
20°-30°	2717.8	9.4
30°-40°	4303.0	14.8
40°-50°	6586.2	22.7
50°-60°	7054.4	24.3
60°-70°	4438.0	15.3
70°-80°	1312.4	4.5
80°-90°	232.1	0.8
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°	29021.9	100.0
0°-180°	29021.9	100.0

Coefficient of Utilization



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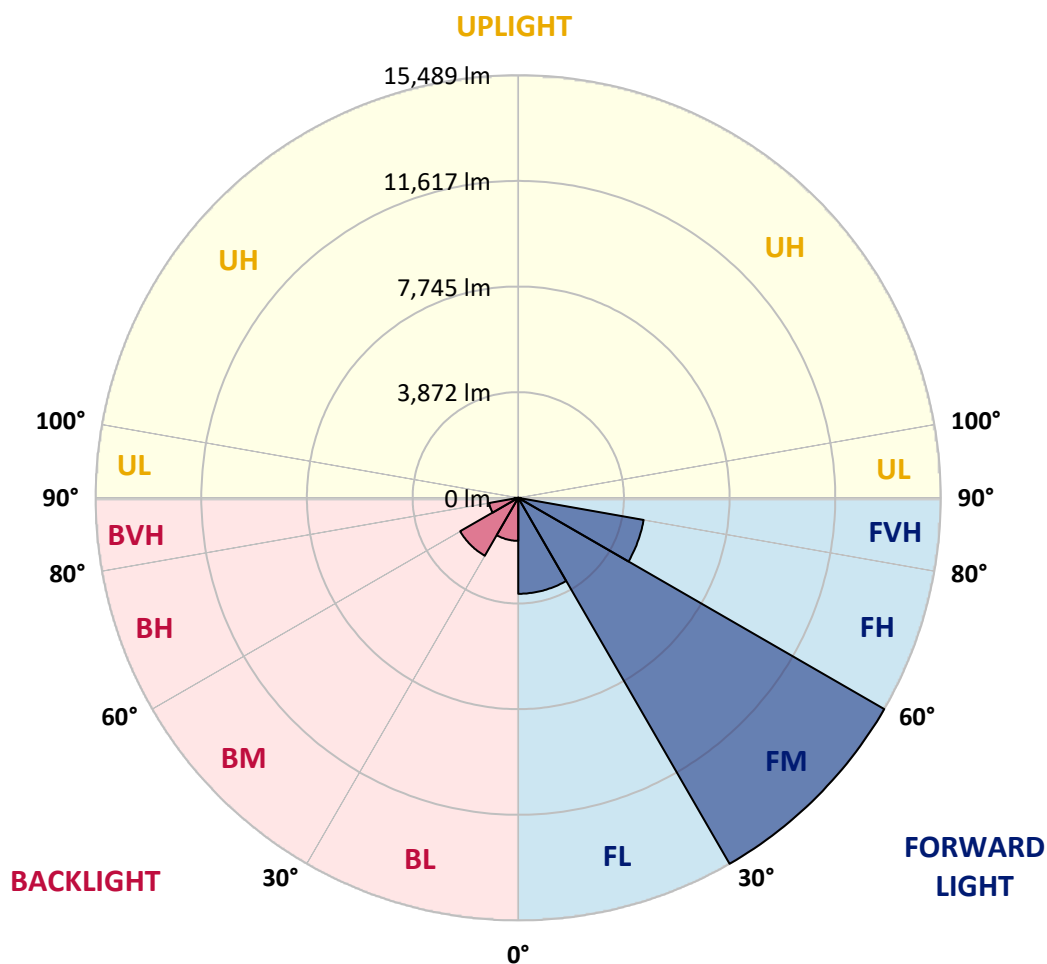
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3517.4	12.1			
FM	(30°-60°)	15489.2	53.4			
FH	(60°-80°)	4665.8	16.1			G2/5000
FVH	(80°-90°)	98.0	0.3			G1/100
BL	(0°-30°)	1578.4	5.4	B3/2500		
BM	(30°-60°)	2454.4	8.5	B2/2500		
BH	(60°-80°)	1084.5	3.7	B3/2500		G3/2500
BVH	(80°-90°)	134.0	0.5			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 Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	7272.0	7272.0	7272.0	7272.0	7272.0	7272.0	7272.0	7272.0	7272.0	7272.0	7272.0
2.5°	8343.2	8337.1	8370.2	8257.6	8181.1	8077.6	7941.1	7767.0	7579.5	7381.4	7296.0
5°	9094.8	9042.2	9076.8	8992.7	8908.8	8752.7	8550.1	8266.6	7920.1	7525.4	7315.4
7.5°	8976.2	8940.3	9028.8	9103.8	9166.8	9147.3	8998.8	8701.7	8254.6	7681.6	7376.9
10°	8020.6	7980.0	8104.6	8364.1	8745.2	9076.8	9256.8	9072.3	8596.7	7852.5	7437.0
12.5°	7177.5	7157.9	7240.4	7450.5	7873.5	8509.7	9223.8	9396.4	8952.2	8055.1	7518.0
15°	6817.4	6793.3	6845.9	6952.4	7222.5	7815.0	8923.8	9618.4	9301.9	8289.2	7647.0
17.5°	6737.8	6710.8	6733.3	6788.9	6962.8	7414.4	8470.7	9728.0	9666.4	8550.1	7755.0
20°	6884.8	6862.4	6865.3	6862.4	6983.8	7342.5	8155.6	9685.9	9984.4	8790.2	7860.0
22.5°	7240.4	7202.9	7204.4	7124.9	7190.9	7468.5	8073.1	9573.4	10268.0	9000.3	7939.5
25°	7819.5	7752.1	7765.5	7563.0	7545.0	7750.5	8202.2	9486.4	10550.1	9168.3	7954.6
27.5°	8611.7	8535.2	8494.7	8193.1	8049.1	8151.1	8464.7	9516.4	10817.1	9313.9	7917.1
30°	9601.9	9508.9	9426.3	8998.8	8737.7	8700.2	8872.7	9714.4	11132.2	9466.9	7852.5
32.5°	10815.6	10707.6	10557.6	9990.5	9622.9	9426.3	9400.9	10066.9	11501.2	9661.9	7819.5
35°	12260.4	12119.4	11906.3	11172.7	10707.6	10305.6	10097.0	10575.5	12006.8	9955.9	7857.0
37.5°	13748.7	13589.7	13394.6	12521.5	11949.9	11357.2	10946.2	11265.7	12680.5	10355.1	7956.0
40°	15121.5	14943.0	14761.4	13984.3	13370.6	12656.5	11985.8	12138.9	13504.2	10832.1	8124.2
42.5°	15931.7	15799.7	15730.6	15310.5	14836.5	14111.8	13279.1	13174.1	14429.8	11381.3	8316.1
45°	15895.6	15841.6	16054.7	16228.7	16116.2	15714.1	14794.4	14318.8	15358.5	11856.8	8493.2
47.5°	15046.5	15082.5	15558.1	16536.2	16966.8	17176.8	16519.7	15442.5	16165.7	12212.4	8572.7
50°	12736.0	12766.1	13867.2	15976.7	17185.9	18369.6	18231.6	16539.3	16791.3	12430.0	8554.6
52.5°	10907.1	10926.7	11399.2	14317.3	16462.7	18969.8	19773.9	17573.0	17248.9	12489.9	8454.2
55°	8215.6	8283.1	8812.7	11232.7	14581.3	18494.2	20713.1	18638.2	17538.5	12496.0	8349.1
57.5°	4799.5	4873.0	5527.1	7624.5	11333.2	16836.3	20855.6	19583.3	17735.0	12447.9	8286.1
60°	2350.9	2382.5	2667.6	4007.3	6988.3	13642.2	19709.4	20040.9	17844.5	12422.5	8283.1
62.5°	1584.3	1579.8	1591.8	1977.4	3443.2	8764.8	17321.0	19239.8	17786.0	12324.9	8253.1
65°	1362.2	1345.7	1300.7	1387.7	1783.8	4008.8	13382.6	16848.3	17340.4	12080.3	8047.6
67.5°	1177.7	1179.3	1180.7	1153.7	1273.8	1849.8	8178.1	13271.6	15741.1	10922.2	7255.5
70°	975.2	988.7	994.7	994.7	1038.2	1213.7	3491.2	9096.3	12416.4	8563.7	5843.6
72.5°	888.2	859.7	862.6	847.7	847.7	924.1	1405.8	5156.5	7822.5	4817.5	3566.2
75°	724.7	742.6	745.7	735.1	700.6	705.1	834.1	2163.5	3347.1	1998.4	1762.9
77.5°	625.7	625.7	631.6	624.1	597.2	528.1	556.6	838.7	1138.8	819.2	880.7
80°	502.6	501.1	526.6	541.6	499.6	390.1	355.6	463.6	505.6	360.1	457.6
82.5°	244.6	259.5	361.6	412.6	379.6	282.1	217.5	288.0	270.1	159.1	205.5
85°	142.6	135.0	162.1	229.5	217.5	156.0	105.1	150.1	141.0	81.0	82.5
87.5°	45.0	42.0	33.0	78.0	63.0	43.5	28.5	43.5	39.1	18.0	18.0
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7272.0	7272.0	7272.0	7272.0	7272.0	7272.0	7272.0	7272.0	7272.0	7272.0
2.5°	7189.5	7012.3	6836.9	6676.3	6578.8	6515.8	6452.8	6382.3	6355.2	6314.7
5°	7117.4	6775.4	6470.8	6208.2	5969.7	5782.1	5593.1	5440.1	5371.1	5417.5
7.5°	7075.4	6580.3	6110.7	5629.1	5165.5	4795.0	4472.4	4245.9	4143.8	4169.3
10°	7037.9	6359.7	5644.2	4883.5	4217.4	3758.3	3428.2	3255.6	3191.1	3204.7
12.5°	7003.4	6112.2	5081.5	4080.8	3372.7	3069.6	2975.1	2976.6	2988.6	2997.6
15°	6997.4	5813.6	4452.9	3378.7	2916.5	2897.1	2999.0	3063.6	3098.1	3108.6
17.5°	6988.3	5456.6	3812.3	2900.0	2805.5	2937.5	3032.1	3074.1	3101.1	3102.6
20°	6952.4	5003.5	3221.2	2672.1	2781.5	2895.5	2954.0	2987.1	3009.6	3017.1
22.5°	6841.4	4499.3	2760.5	2570.0	2685.5	2777.0	2846.0	2883.5	2897.1	2906.1
25°	6641.8	3935.3	2442.5	2472.5	2552.0	2667.6	2723.0	2730.5	2726.0	2739.5
27.5°	6380.7	3330.6	2244.4	2340.5	2442.5	2541.5	2571.5	2567.0	2558.0	2573.1
30°	6065.7	2787.6	2118.4	2192.0	2331.5	2421.5	2448.5	2438.0	2420.0	2436.5
32.5°	5732.6	2343.5	2014.9	2088.4	2239.9	2328.5	2355.4	2345.0	2331.5	2345.0
35°	5422.0	2032.9	1918.9	2019.4	2168.0	2254.9	2289.4	2291.0	2291.0	2307.5
37.5°	5137.0	1851.4	1839.4	1975.9	2118.4	2196.5	2246.0	2249.0	2184.5	2188.9
40°	4873.0	1774.9	1803.4	1947.4	2070.4	2145.4	2148.4	1980.4	1861.9	1858.8
42.5°	4656.9	1759.8	1813.8	1944.4	2035.9	2038.9	1827.4	1696.8	1663.8	1665.3
45°	4454.3	1755.3	1837.8	1944.4	1984.9	1761.4	1618.8	1584.3	1587.3	1599.3
47.5°	4227.8	1737.4	1842.3	1917.4	1837.8	1566.3	1524.3	1509.3	1503.3	1506.3
50°	3980.3	1672.8	1785.3	1863.3	1585.8	1482.3	1429.8	1425.3	1432.7	1437.3
52.5°	3719.2	1567.8	1687.9	1765.9	1470.3	1408.8	1350.2	1360.8	1393.8	1404.2
55°	3548.2	1444.7	1558.8	1570.8	1389.3	1339.8	1290.3	1314.3	1375.8	1395.2
57.5°	3503.1	1314.3	1411.7	1398.3	1285.8	1279.7	1249.8	1270.8	1348.8	1377.3
60°	3489.7	1197.2	1267.7	1257.3	1185.2	1213.7	1206.2	1216.8	1243.7	1252.8
62.5°	3384.7	1104.2	1138.8	1123.7	1095.2	1144.7	1162.8	1140.2	1161.2	1171.8
65°	3117.6	1029.2	1012.7	1002.2	1014.2	1059.2	1095.2	1050.2	1069.7	1099.7
67.5°	2676.5	927.2	882.2	894.2	931.7	955.7	1002.2	951.2	967.7	1018.7
70°	2164.9	798.2	757.7	792.1	828.2	877.7	885.2	850.6	889.7	946.7
72.5°	1531.8	667.6	639.1	709.6	721.6	786.2	769.7	753.2	807.2	826.7
75°	1062.2	538.6	522.1	576.2	619.6	675.2	663.2	682.6	796.6	805.6
77.5°	672.1	418.6	408.1	442.6	502.6	564.2	583.6	805.6	1360.8	1414.8
80°	390.1	312.1	300.0	327.1	379.6	436.5	562.6	988.7	897.2	886.6
82.5°	217.5	214.5	199.6	207.0	253.6	315.1	795.2	696.2	565.6	583.6
85°	102.0	126.1	108.0	103.5	142.6	369.1	531.2	397.6	264.0	258.1
87.5°	27.0	24.0	24.0	27.0	60.0	318.1	211.6	169.5	100.6	97.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)