

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: P965655

Luminaire Tested: **NAV-SB4A-740-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965655
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-SB4A-740-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 350mA 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: 14899.4 lumens
Efficiency: N/A
Efficacy: 130.7 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): 114
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

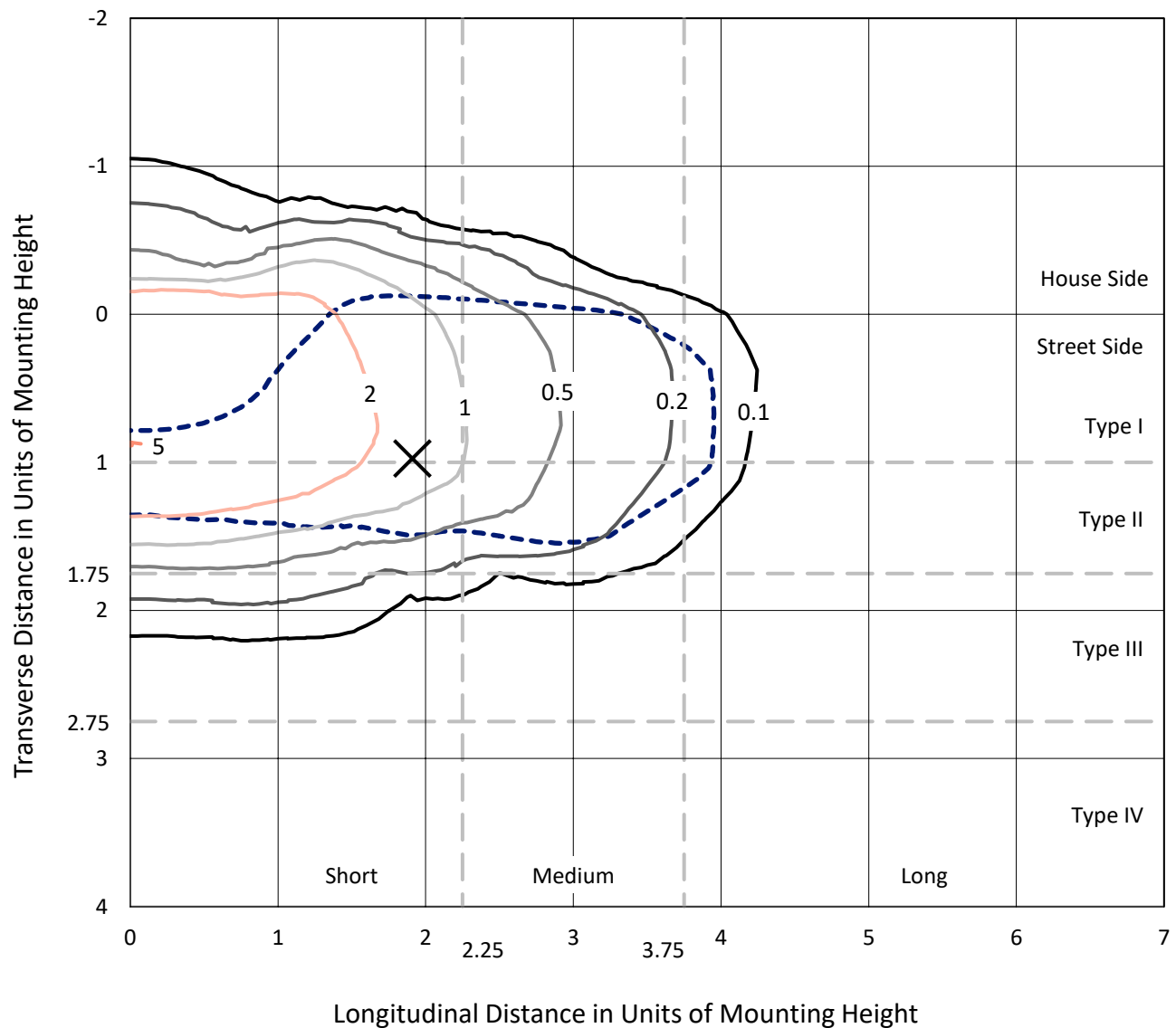


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Iso-Footcandle Lines of Horizontal Illumination

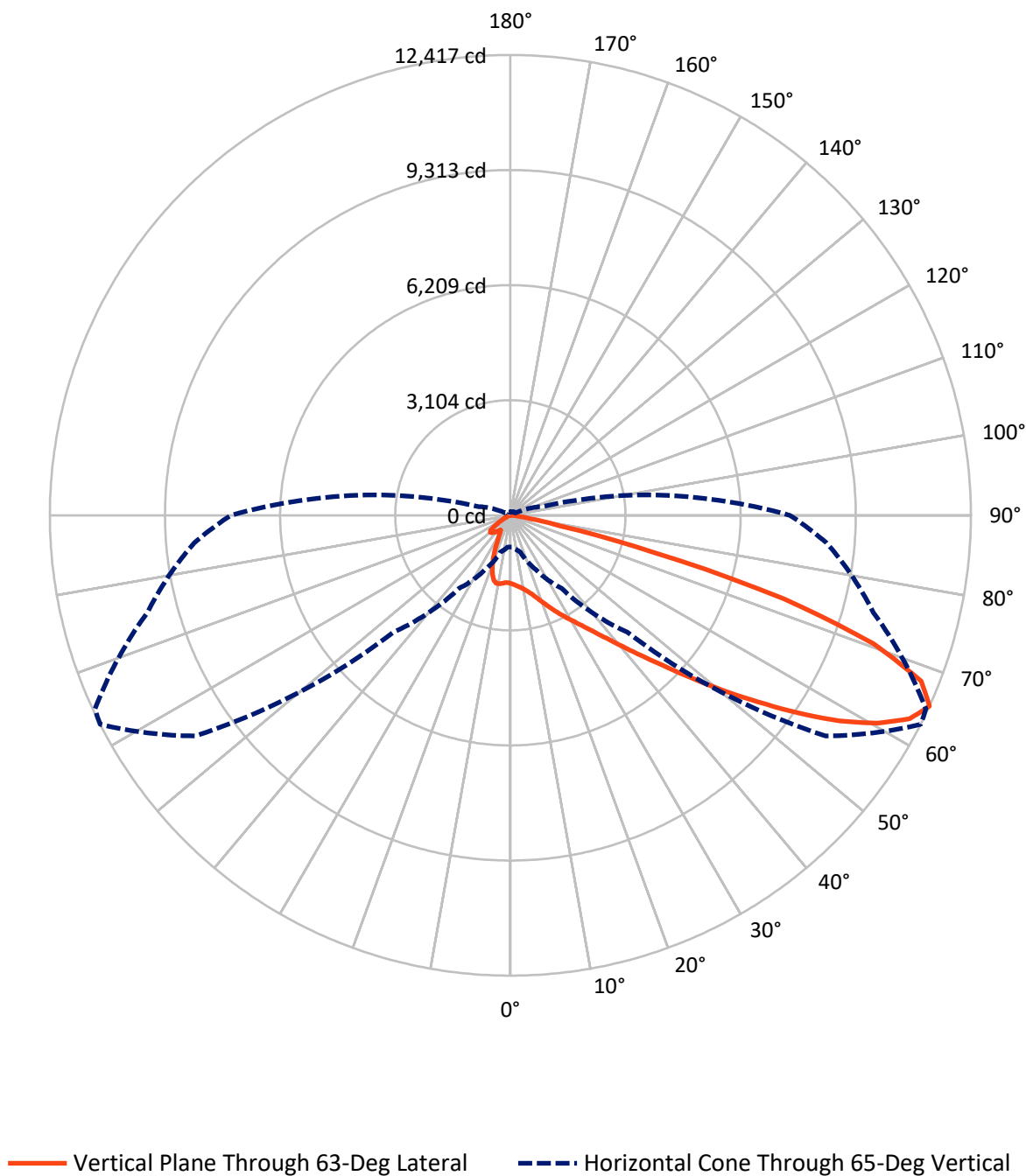
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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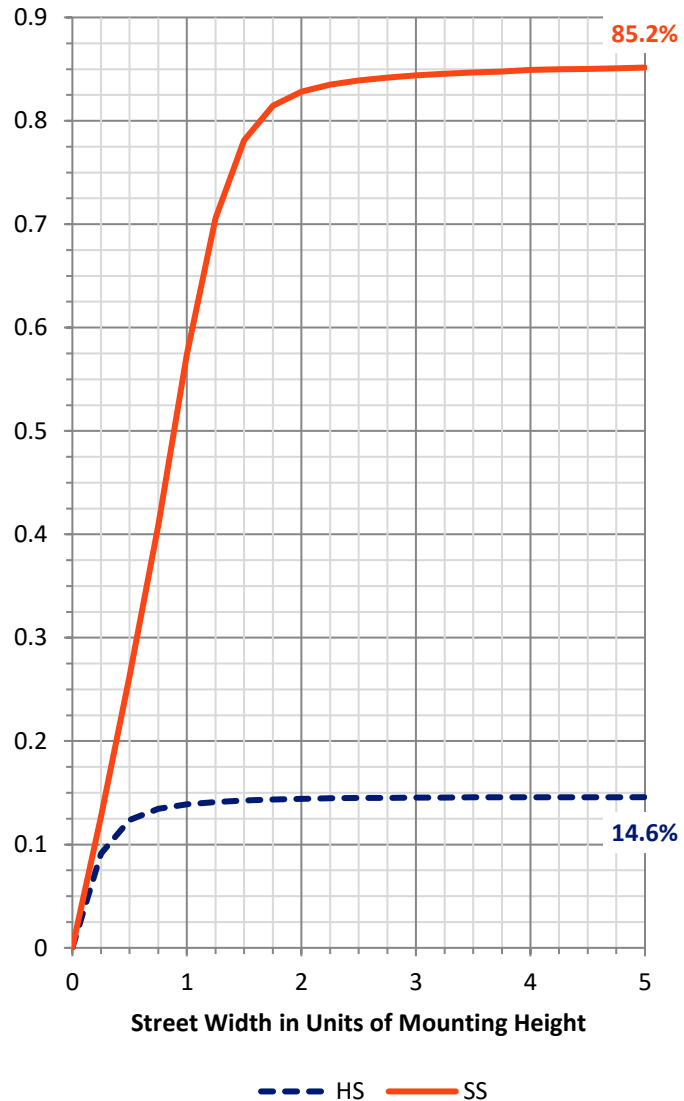
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2190.1	0.0	2190.1
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	12709.3	0.0	12709.3
	% Fixture	85.3	0.0	85.3
Total	Lumens	14899.4	0.0	14899.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.3	1.2
10°-20°	480.7	3.2
20°-30°	837.0	5.6
30°-40°	1508.7	10.1
40°-50°	2992.3	20.1
50°-60°	4076.0	27.4
60°-70°	3253.4	21.8
70°-80°	1472.2	9.9
80°-90°	105.8	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°	14899.4	100.0
0°-180°	14899.4	100.0

Coefficient of Utilization



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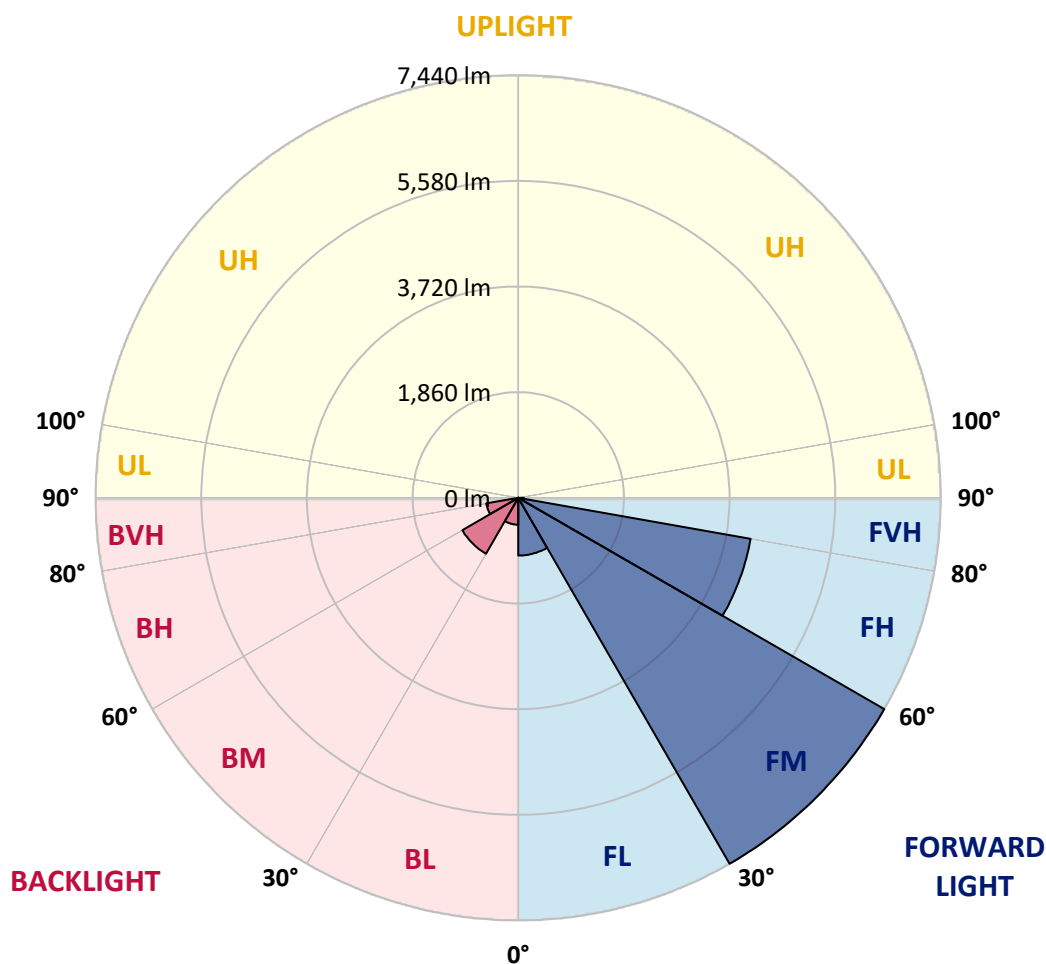
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1017.1	6.8			
FM	(30°-60°)	7440.4	49.9			
FH	(60°-80°)	4153.9	27.9			G2/5000
FVH	(80°-90°)	98.0	0.7			G1/100
BL	(0°-30°)	474.0	3.2	B1/500		
BM	(30°-60°)	1136.5	7.6	B2/2500		
BH	(60°-80°)	571.7	3.8	B2/1000		G2/1000
BVH	(80°-90°)	7.8	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°	1838.8	1838.8	1838.8	1838.8	1838.8	1838.8	1838.8	1838.8	1838.8	1838.8	1838.8
2.5°	1881.9	1876.8	1884.0	1880.9	1878.8	1874.7	1872.7	1870.6	1866.5	1863.4	1851.2
5°	1887.0	1884.0	1891.1	1897.3	1903.4	1909.6	1912.6	1916.7	1912.6	1904.4	1892.2
7.5°	1844.0	1841.9	1857.3	1875.7	1903.4	1927.0	1952.6	1967.0	1968.0	1964.9	1951.6
10°	1840.9	1835.8	1851.2	1873.7	1909.6	1951.6	1996.7	2027.4	2031.5	2044.9	2030.5
12.5°	1889.1	1884.0	1905.5	1930.1	1967.0	2011.0	2066.4	2109.4	2115.6	2134.0	2123.8
15°	1970.0	1962.9	1987.5	2019.2	2066.4	2116.6	2175.0	2214.0	2219.1	2241.7	2223.2
17.5°	2064.4	2057.2	2085.9	2119.7	2171.0	2239.6	2307.3	2350.3	2356.5	2370.8	2337.0
20°	2185.3	2176.1	2198.6	2229.4	2283.7	2365.7	2446.7	2508.2	2507.1	2507.1	2451.8
22.5°	2325.7	2311.4	2330.8	2355.4	2406.7	2506.1	2613.8	2686.5	2686.5	2657.8	2566.6
25°	2476.4	2462.0	2483.6	2506.1	2551.2	2664.0	2790.0	2880.2	2884.4	2835.1	2689.6
27.5°	2665.0	2646.5	2663.0	2689.6	2716.2	2831.0	2980.7	3085.2	3087.3	3011.4	2806.4
30°	3027.8	2975.6	2924.3	2895.6	2907.9	3021.7	3181.6	3297.4	3307.7	3203.1	2933.5
32.5°	3692.0	3681.8	3501.4	3265.6	3142.6	3226.7	3406.1	3545.5	3551.6	3417.4	3098.6
35°	4724.2	4711.9	4421.8	3972.9	3572.1	3501.4	3678.7	3843.7	3839.6	3688.0	3312.8
37.5°	5956.4	5945.1	5562.8	4962.0	4313.2	3916.5	4030.3	4203.5	4229.2	4030.3	3589.6
40°	7009.1	6967.0	6725.1	6146.0	5297.2	4605.3	4530.5	4645.3	4672.0	4436.2	3941.1
42.5°	7806.5	7770.6	7647.6	7285.8	6488.4	5624.3	5119.9	5164.0	5193.7	4910.8	4345.0
45°	8219.6	8211.4	8260.6	8226.8	7702.0	6874.8	5962.5	5779.1	5790.3	5436.7	4803.2
47.5°	8278.0	8273.9	8498.4	8816.1	8745.4	8285.2	7043.9	6545.8	6505.8	6030.2	5301.3
50°	7933.6	7925.4	8355.9	8951.4	9442.4	9470.1	8271.9	7409.8	7321.7	6644.2	5821.1
52.5°	6833.8	6831.7	7539.0	8530.2	9687.4	10507.4	9485.5	8359.0	8211.4	7294.0	6370.5
55°	5258.2	5296.2	6107.1	7278.6	9240.5	11006.6	10575.0	9412.7	9186.2	7948.0	6876.8
57.5°	3724.8	3780.2	4581.8	5625.3	7854.7	10711.4	11312.0	10468.4	10224.5	8599.9	7390.4
60°	2000.8	2050.0	2852.6	4098.0	5843.6	9610.5	11700.5	11384.8	11154.2	9219.0	7853.7
62.5°	1192.1	1208.5	1540.6	2645.5	3952.4	7342.2	11535.5	12082.8	11893.2	9738.6	8256.5
65°	855.9	859.0	1026.0	1615.4	2399.5	4460.8	10378.2	12417.0	12358.5	10130.2	8554.8
67.5°	720.6	718.5	788.2	1073.2	1634.9	2234.5	7954.1	11944.4	12192.5	10378.2	8723.9
70°	618.1	621.2	703.2	786.2	1229.0	1264.8	3954.4	10399.8	10928.7	10443.8	8713.6
72.5°	460.2	470.5	546.3	716.5	927.6	870.2	1365.3	7711.2	8667.5	9840.1	8261.6
75°	324.9	330.0	384.4	602.7	691.9	633.4	697.0	3986.2	5212.1	7544.1	6762.0
77.5°	250.1	259.3	291.1	421.3	681.6	444.8	426.4	1379.6	2119.7	4557.2	4636.1
80°	135.3	151.7	210.1	304.4	478.7	314.7	211.2	549.4	718.5	2131.0	1787.6
82.5°	69.7	77.9	146.6	219.4	272.6	274.7	104.6	228.6	296.2	658.0	245.0
85°	27.7	33.8	98.4	121.0	140.4	135.3	47.2	92.2	106.6	182.4	74.8
87.5°	6.1	10.2	35.9	27.7	26.6	28.7	11.3	21.5	20.5	21.5	13.3
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°	1838.8	1838.8	1838.8	1838.8	1838.8	1838.8	1838.8	1838.8	1838.8	1838.8	1838.8
2.5°	1850.1	1846.0	1834.7	1822.4	1808.1	1799.9	1794.8	1793.7	1786.6	1781.4	1786.6
5°	1880.9	1876.8	1855.2	1829.6	1802.0	1780.4	1759.9	1741.5	1714.8	1709.7	1707.6
7.5°	1942.4	1931.1	1896.2	1861.4	1809.1	1746.6	1670.7	1583.6	1505.7	1482.1	1470.9
10°	2018.2	2002.8	1958.8	1897.3	1781.4	1611.3	1427.8	1257.7	1122.4	1084.4	1070.1
12.5°	2104.3	2091.0	2032.6	1918.8	1665.6	1357.1	1076.2	865.1	733.9	701.1	691.9
15°	2206.8	2187.4	2106.4	1886.0	1458.6	1031.1	739.0	614.0	566.8	560.7	554.5
17.5°	2315.5	2283.7	2172.0	1768.1	1179.8	732.9	570.9	535.0	514.6	508.4	505.3
20°	2414.9	2373.9	2210.9	1589.8	881.5	570.9	511.5	487.9	469.4	462.3	458.2
22.5°	2514.3	2455.9	2210.9	1346.8	661.1	506.4	469.4	447.9	426.4	417.2	412.0
25°	2617.8	2540.0	2172.0	1076.2	532.0	464.3	429.5	405.9	387.4	376.2	372.1
27.5°	2718.3	2610.7	2082.8	820.0	473.6	427.4	392.6	370.0	352.6	344.4	344.4
30°	2813.6	2680.4	1957.7	622.2	435.6	391.5	358.7	339.3	321.8	313.6	314.7
32.5°	2942.8	2768.5	1824.5	510.4	402.8	357.7	328.0	309.5	294.2	288.0	288.0
35°	3122.1	2898.7	1709.7	501.2	375.2	330.0	300.3	282.9	267.5	262.4	262.4
37.5°	3376.4	3108.8	1649.2	562.7	352.6	305.4	277.8	259.3	245.0	240.9	239.8
40°	3690.0	3393.8	1682.0	624.2	337.2	283.9	257.3	238.8	226.5	221.4	220.4
42.5°	4062.1	3745.3	1863.4	671.4	327.0	265.5	237.8	217.3	209.1	207.0	207.0
45°	4489.5	4131.8	2141.2	721.6	310.6	248.0	218.3	203.0	196.8	195.8	194.7
47.5°	4975.3	4556.1	2463.1	784.1	294.2	231.6	203.0	192.7	187.6	185.5	185.5
50°	5457.2	4983.5	2794.1	819.0	280.8	216.3	190.6	182.4	178.4	177.3	177.3
52.5°	5961.5	5423.4	3061.7	786.2	269.6	204.0	180.4	174.2	170.1	169.1	169.1
55°	6442.2	5779.1	3107.8	667.3	247.0	191.7	169.1	166.0	160.9	160.9	159.9
57.5°	6856.3	5957.4	2781.8	489.9	224.5	173.2	157.8	154.8	150.7	149.6	148.6
60°	7236.6	5906.2	2147.4	330.0	199.9	154.8	143.5	141.4	137.4	132.2	131.2
62.5°	7450.8	5680.7	1468.8	215.2	175.3	135.3	127.1	126.1	116.8	106.6	104.6
65°	7531.8	5217.2	916.4	156.8	146.6	115.8	109.7	107.6	94.3	83.0	82.0
67.5°	7461.1	4454.6	462.3	124.0	115.8	96.4	90.2	90.2	81.0	70.7	69.7
70°	7178.2	3339.4	194.7	99.4	89.2	73.8	73.8	77.9	68.7	57.4	56.4
72.5°	6564.2	2246.8	103.5	75.8	66.6	52.3	60.5	63.6	54.3	43.0	43.0
75°	5218.3	1370.4	71.8	56.4	42.0	36.9	46.1	48.2	36.9	28.7	27.7
77.5°	3569.0	787.2	48.2	35.9	26.6	21.5	31.8	29.7	19.5	13.3	14.3
80°	1567.2	328.0	27.7	16.4	10.2	8.2	11.3	8.2	6.1	4.1	4.1
82.5°	183.5	76.9	10.2	6.1	4.1	2.0	1.0	0.0	0.0	0.0	0.0
85°	37.9	9.2	5.1	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	7.2	2.0	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)