

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: P967890

Luminaire Tested: **NAV-SB5A-830-U-T3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967890
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-830-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16367.2 lumens
Efficiency: N/A
Efficacy: 115.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G3

Input Watts (W): 141.7
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

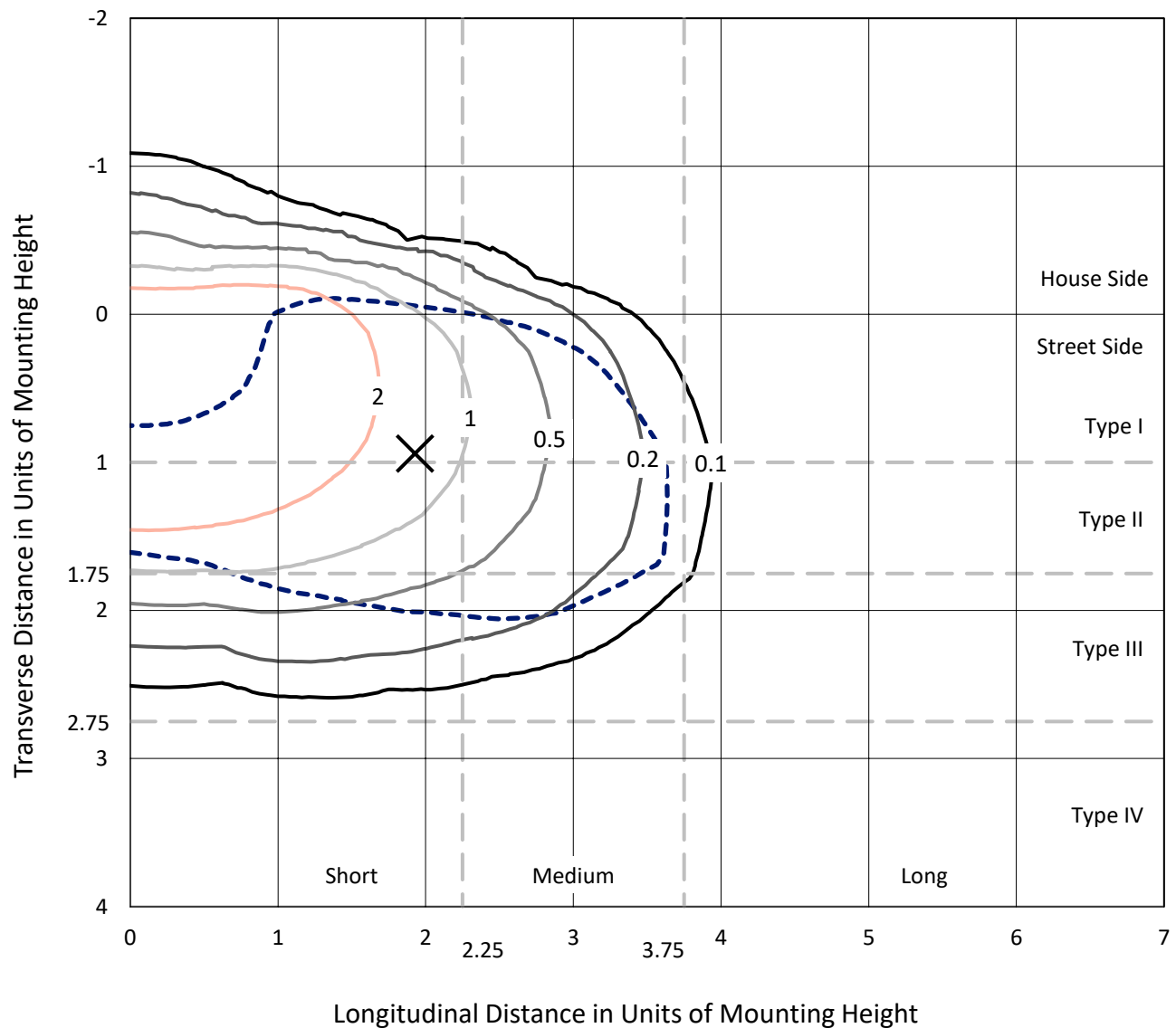


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

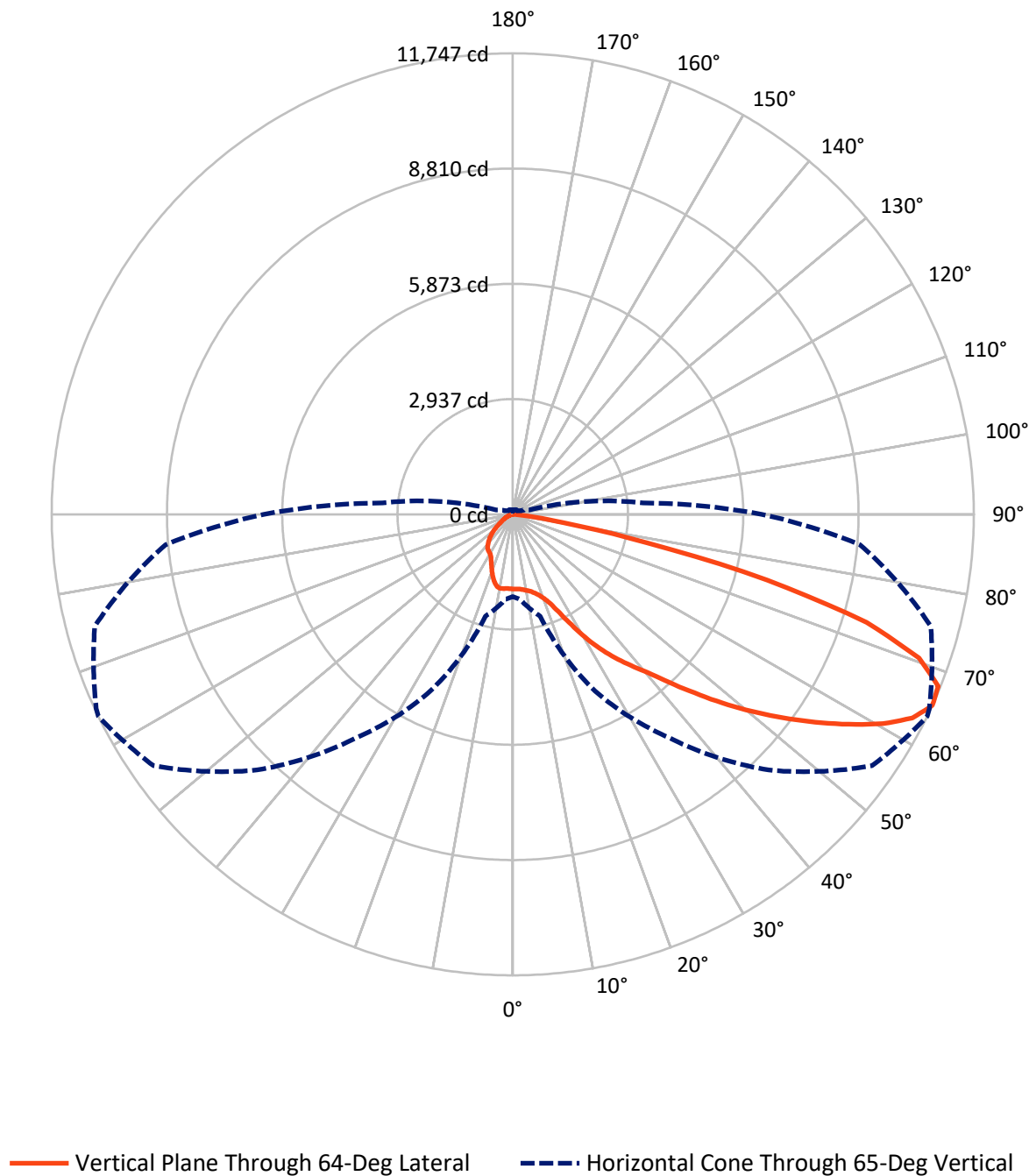


Based on 25 foot mounting height. Maximum calculated value = 4.8 fc
Type III - Short - N/A

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Luminous Intensity Polar Plot



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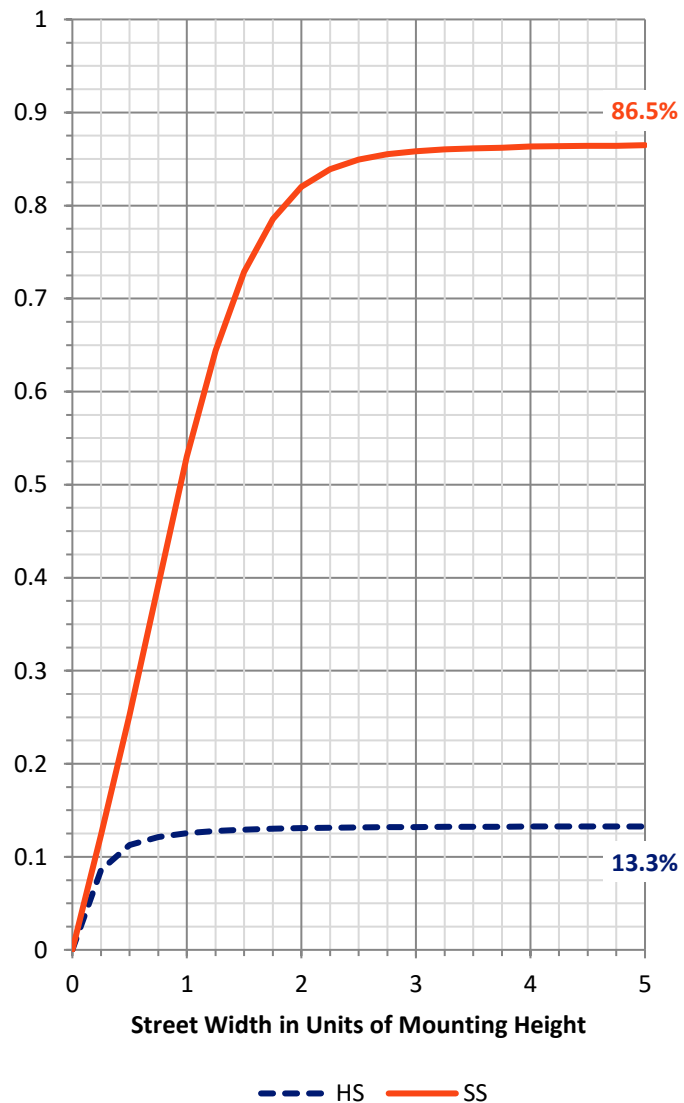
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2188.8	0.0	2188.8
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	14178.4	0.0	14178.4
	% Fixture	86.6	0.0	86.6
Total	Lumens	16367.2	0.0	16367.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	175.6	1.1
10°-20°	476.4	2.9
20°-30°	902.7	5.5
30°-40°	1826.6	11.2
40°-50°	3111.6	19.0
50°-60°	4231.5	25.9
60°-70°	3973.6	24.3
70°-80°	1592.0	9.7
80°-90°	77.1	0.5
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°	16367.2	100.0
0°-180°	16367.2	100.0

Coefficient of Utilization



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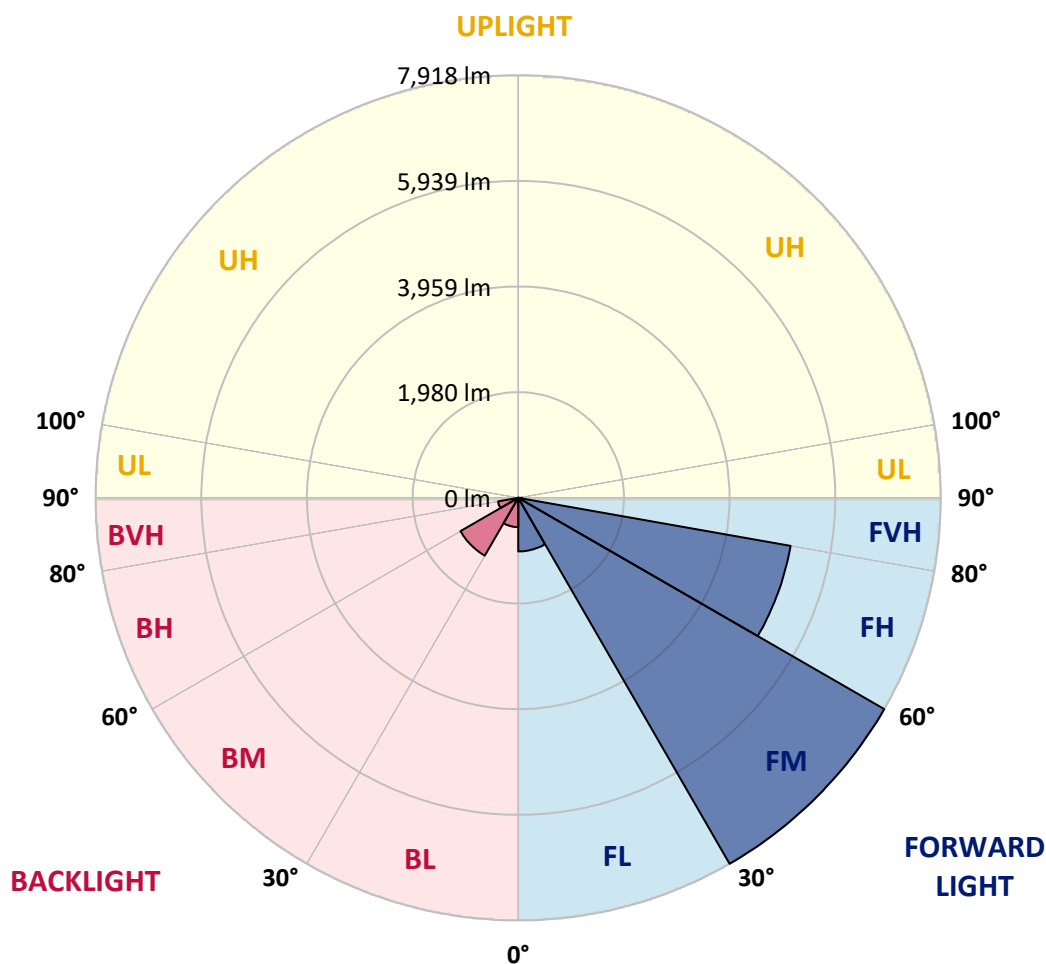
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1005.1	6.1			
FM	(30°-60°)	7918.4	48.4			
FH	(60°-80°)	5181.5	31.7			G3/7500
FVH	(80°-90°)	73.4	0.4			G1/100
BL	(0°-30°)	549.5	3.4	B2/1000		
BM	(30°-60°)	1251.3	7.6	B2/2500		
BH	(60°-80°)	384.2	2.3	B1/500		G1/500
BVH	(80°-90°)	3.8	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1903.6	1903.6	1903.6	1903.6	1903.6	1903.6	1903.6	1903.6	1903.6	1903.6	1903.6
2.5°	1897.1	1910.3	1907.0	1903.6	1902.6	1904.8	1905.9	1904.8	1904.8	1904.8	1905.9
5°	1860.9	1871.9	1871.9	1879.5	1890.5	1903.6	1913.6	1915.7	1918.0	1921.3	1920.1
7.5°	1791.8	1800.5	1807.1	1832.4	1859.8	1894.9	1924.5	1939.9	1942.1	1954.2	1958.6
10°	1744.6	1755.5	1766.5	1792.8	1832.4	1885.0	1935.5	1972.8	1978.2	2006.8	2020.0
12.5°	1742.4	1753.4	1767.6	1796.1	1842.2	1898.2	1959.6	2013.4	2023.2	2065.0	2092.4
15°	1765.5	1778.6	1791.8	1826.9	1876.3	1944.3	2010.1	2077.1	2086.9	2146.1	2175.8
17.5°	1812.6	1830.1	1840.1	1875.1	1927.8	2003.6	2090.2	2167.1	2175.8	2245.0	2282.3
20°	1905.9	1926.7	1930.0	1958.6	2010.1	2091.3	2194.4	2289.8	2300.8	2379.8	2421.6
22.5°	2099.0	2128.6	2102.3	2116.5	2162.6	2243.8	2355.8	2476.4	2491.8	2581.8	2619.1
25°	2439.1	2480.8	2412.7	2388.7	2408.4	2492.9	2633.3	2785.8	2803.4	2875.8	2894.5
27.5°	3107.3	3053.6	2950.5	2849.5	2790.3	2838.5	2996.5	3185.2	3207.1	3277.4	3255.4
30°	3841.4	3794.1	3654.8	3431.0	3290.6	3282.9	3428.8	3639.5	3664.7	3731.6	3664.7
32.5°	4576.5	4531.5	4380.1	4104.7	3861.1	3740.4	3841.4	4075.1	4088.2	4131.1	4032.2
35°	5299.6	5253.5	5102.0	4820.1	4520.6	4246.3	4226.5	4489.8	4494.2	4539.2	4392.1
37.5°	6027.0	5988.7	5827.3	5550.8	5255.7	4877.2	4693.9	4882.6	4888.1	4932.0	4779.5
40°	6546.1	6562.5	6451.7	6237.7	5984.3	5570.6	5218.4	5300.7	5267.8	5341.3	5250.2
42.5°	6991.5	7024.4	6927.9	6820.4	6673.3	6309.0	5867.9	5853.7	5801.0	5840.4	5746.2
45°	7376.6	7404.0	7317.4	7292.2	7288.9	7033.1	6577.8	6492.2	6418.8	6411.1	6298.0
47.5°	7518.2	7570.9	7608.2	7692.6	7857.1	7749.6	7311.8	7179.1	7096.8	7036.4	6857.7
50°	7571.9	7627.8	7755.2	8000.9	8390.4	8436.5	8042.7	7893.4	7792.5	7682.7	7419.4
52.5°	7499.5	7599.4	7770.5	8184.1	8749.2	8987.3	8743.8	8613.2	8498.0	8319.1	7928.5
55°	7072.7	7172.5	7522.6	8182.0	8928.1	9373.5	9406.4	9348.3	9218.8	8936.9	8339.9
57.5°	6173.0	6321.1	6875.2	7903.3	8924.8	9706.0	10056.0	10097.7	9952.9	9549.1	8663.6
60°	4926.6	5127.3	5803.2	7285.5	8649.4	9885.9	10625.5	10833.9	10680.3	10152.5	8925.9
62.5°	3437.5	3670.2	4309.9	6317.8	8019.6	9756.5	11041.3	11426.4	11310.2	10692.4	9026.9
65°	2096.7	2171.4	2687.1	4971.5	6948.7	9214.4	11169.7	11746.8	11708.5	11022.6	8877.6
67.5°	1396.8	1459.3	1607.4	3409.0	5394.0	8131.5	10862.4	11690.8	11701.8	10968.9	8331.2
70°	841.5	895.3	991.9	1982.7	3495.8	6436.3	9911.1	10977.6	11041.3	10250.2	7295.4
72.5°	346.8	382.9	470.7	898.6	1810.5	4084.9	7892.3	9425.1	9573.2	8618.6	5599.1
75°	196.4	215.0	276.5	451.0	785.6	1903.6	4780.6	6690.9	6909.2	5940.4	3368.5
77.5°	130.6	139.3	178.9	291.8	442.2	649.5	2043.0	3485.8	3902.8	3244.4	1458.2
80°	87.7	95.4	122.9	195.3	287.5	278.7	650.7	1291.4	1588.7	1114.8	355.5
82.5°	59.2	60.4	87.7	128.3	182.1	135.0	192.0	401.6	504.7	322.6	135.0
85°	34.0	32.9	64.8	74.6	81.2	56.0	58.1	120.7	158.0	136.0	76.8
87.5°	4.4	6.6	25.2	19.8	11.0	12.1	12.1	20.8	30.7	32.9	16.5
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°	1903.6	1903.6	1903.6	1903.6	1903.6	1903.6	1903.6	1903.6	1903.6	1903.6	1903.6
2.5°	1905.9	1904.8	1901.5	1898.2	1890.5	1886.1	1888.4	1886.1	1885.0	1886.1	1890.5
5°	1920.1	1916.9	1908.0	1897.1	1881.7	1863.0	1851.0	1833.4	1817.0	1807.1	1809.3
7.5°	1958.6	1955.3	1943.2	1912.4	1863.0	1785.1	1713.9	1651.3	1604.1	1576.7	1577.8
10°	2020.0	2014.5	1995.9	1927.8	1798.4	1628.3	1486.8	1369.3	1292.5	1256.3	1253.1
12.5°	2092.4	2085.8	2052.9	1913.6	1675.5	1409.9	1214.6	1084.0	1012.7	980.9	977.6
15°	2178.0	2169.2	2104.4	1845.5	1496.6	1168.5	989.7	892.1	845.9	817.4	818.6
17.5°	2284.4	2269.0	2142.9	1743.5	1302.4	984.2	851.5	778.0	737.3	709.9	707.7
20°	2422.7	2397.5	2173.6	1621.7	1123.5	867.9	758.2	696.7	666.0	641.9	637.4
22.5°	2615.8	2579.5	2210.9	1490.0	997.3	787.8	689.0	644.1	618.8	591.4	587.0
25°	2854.9	2812.2	2256.9	1368.3	910.7	718.6	638.6	601.3	571.6	539.9	536.6
27.5°	3189.6	3112.8	2311.9	1268.3	836.1	659.4	592.4	550.8	516.8	490.5	484.9
30°	3562.7	3436.5	2360.2	1208.1	768.0	604.5	532.2	490.5	458.7	440.0	436.6
32.5°	3916.0	3744.8	2391.9	1181.7	706.6	542.0	466.3	421.4	397.2	391.8	395.0
35°	4249.5	4023.5	2388.7	1156.5	651.8	479.5	401.6	355.5	336.8	340.1	340.1
37.5°	4633.5	4320.9	2365.6	1116.9	606.8	422.4	345.6	305.0	288.5	289.7	294.1
40°	5080.1	4664.3	2351.4	1042.3	557.4	369.7	299.5	266.6	254.5	250.2	249.1
42.5°	5556.3	4996.8	2353.5	957.9	495.9	322.6	267.7	240.3	229.3	226.0	224.9
45°	6034.7	5313.8	2356.8	870.1	431.2	286.4	244.7	221.6	215.0	210.6	210.6
47.5°	6484.6	5583.8	2295.4	775.7	367.6	258.9	226.0	210.6	205.2	199.7	199.7
50°	6903.7	5763.7	2147.3	666.0	317.1	237.0	211.8	200.8	195.3	189.8	189.8
52.5°	7229.5	5792.2	1902.6	553.0	282.0	220.6	203.0	193.1	186.5	181.0	180.0
55°	7374.4	5613.4	1554.7	447.6	254.5	206.2	194.2	184.3	176.6	171.2	170.0
57.5°	7337.2	5237.0	1212.5	359.9	228.3	192.0	183.3	176.6	167.9	159.1	158.0
60°	7153.9	4733.4	914.0	299.5	204.1	176.6	171.2	165.6	153.6	140.4	138.3
62.5°	6836.7	4100.3	651.8	247.9	177.7	159.1	156.9	152.5	135.0	110.8	108.6
65°	6351.8	3331.1	438.9	206.2	152.5	139.3	140.4	132.7	109.7	82.3	80.1
67.5°	5643.0	2435.8	280.8	169.0	127.3	116.3	117.4	113.1	93.3	70.2	66.9
70°	4740.0	1612.9	183.3	128.3	102.1	90.0	96.6	97.7	79.0	57.1	54.8
72.5°	3474.9	952.4	128.3	95.4	74.6	62.5	79.0	81.2	63.7	42.7	40.6
75°	1980.5	452.0	96.6	69.1	46.1	43.9	61.4	61.4	43.9	28.5	26.3
77.5°	831.7	188.7	68.1	45.0	26.3	25.2	41.7	38.4	21.9	13.1	13.1
80°	240.3	84.5	36.2	21.9	11.0	9.8	16.5	12.1	5.5	2.2	2.2
82.5°	94.4	37.3	14.2	8.8	4.4	4.4	2.2	0.0	0.0	0.0	0.0
85°	56.0	15.4	6.6	3.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	14.2	3.3	2.2	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)