

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: P882730

Luminaire Tested: **NAV-SB2D-727-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882730
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-727-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14231 lumens
Efficiency: N/A
Efficacy: 96.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

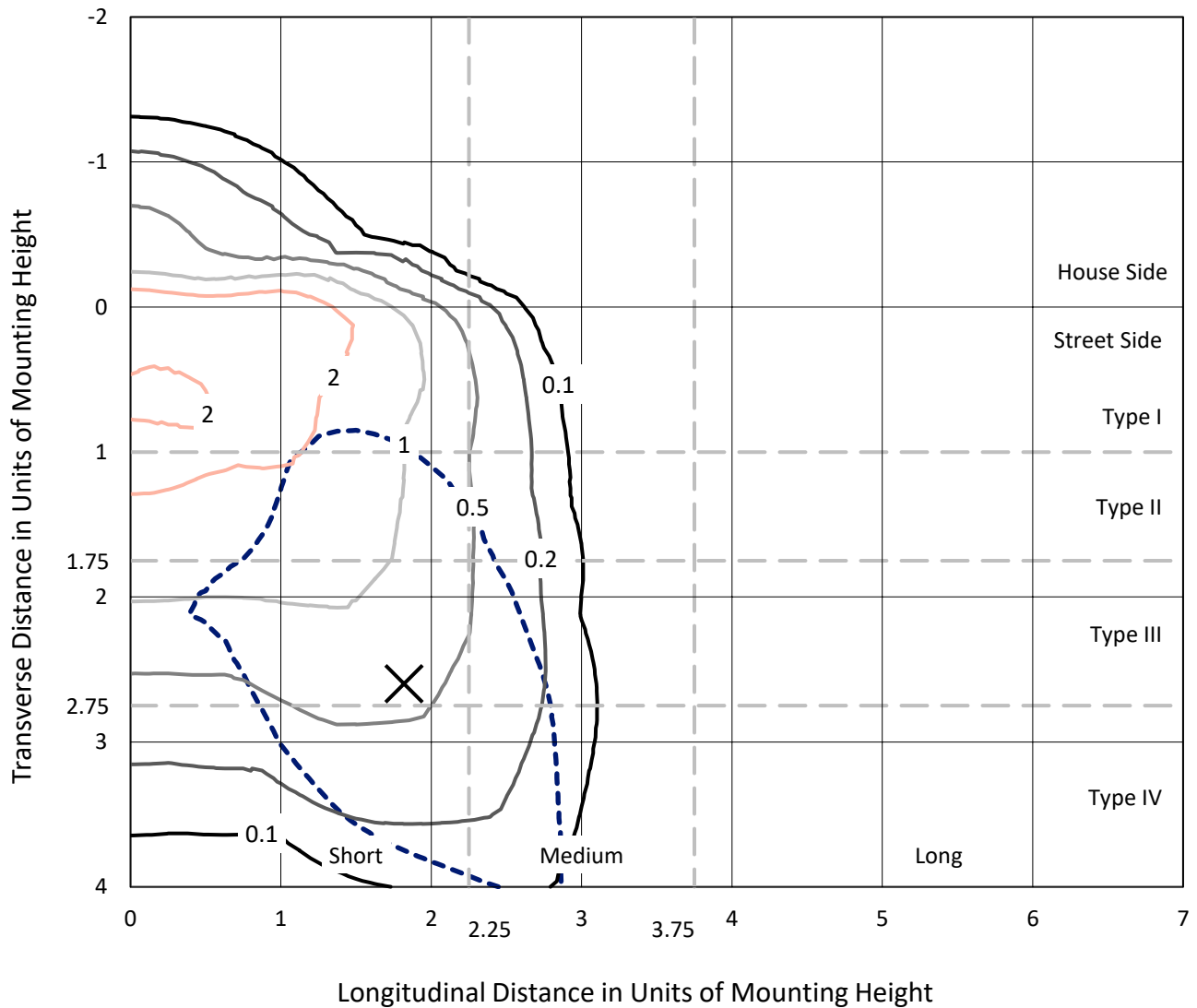
Input Watts (W): 147.6
Input Voltage (V): 120.0
Input Current (Ain): 1.234
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

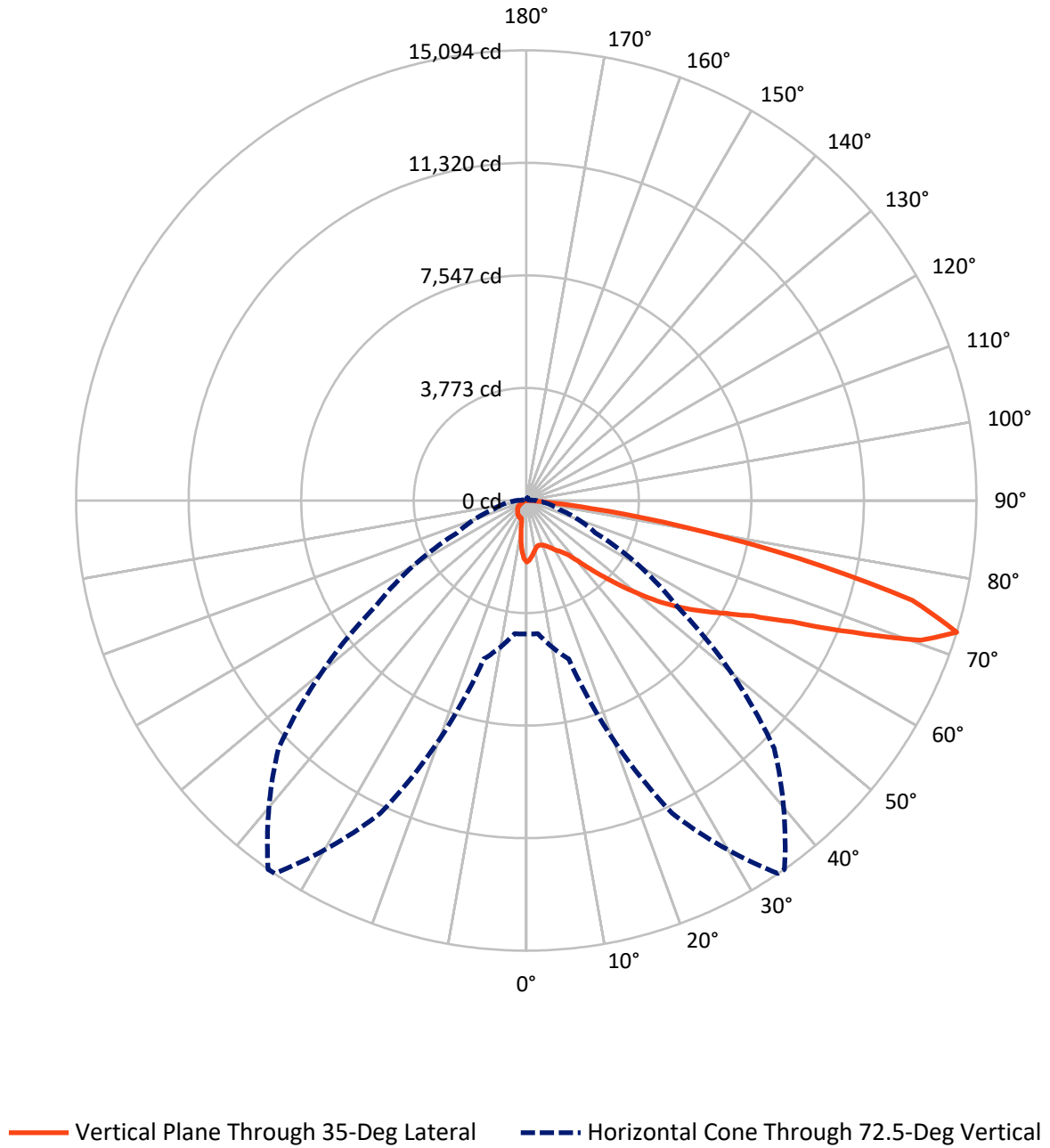
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.3 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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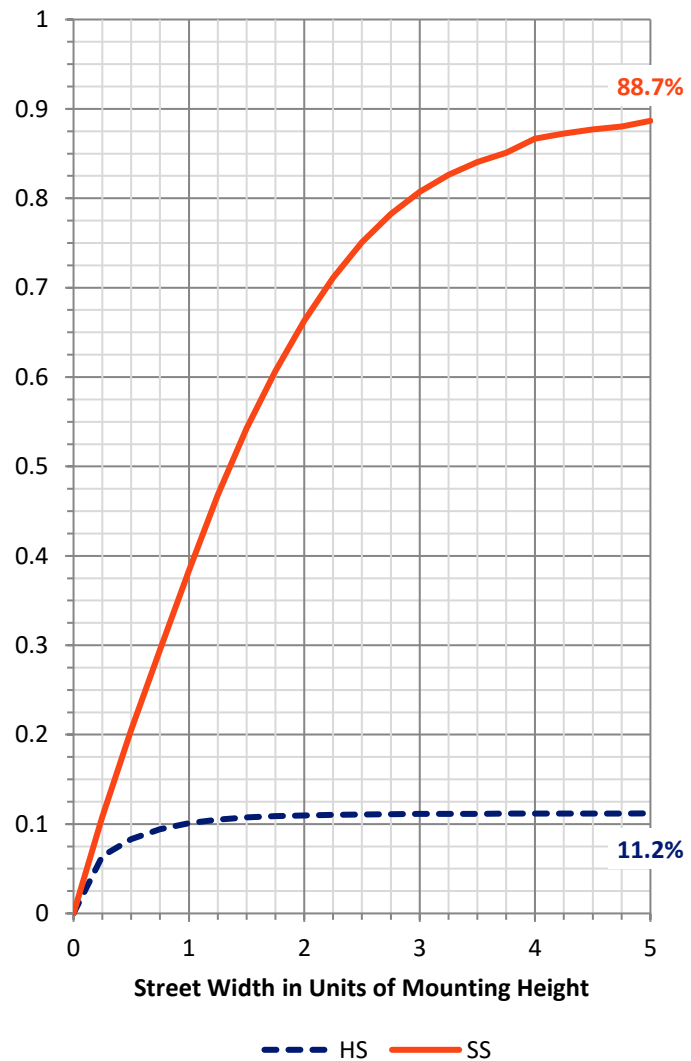
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1601.6	0.0	1601.6
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	12629.4	0.0	12629.4
	% Fixture	88.7	0.0	88.7
Total	Lumens	14231.0	0.0	14231.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.5	1.2
10°-20°	396.5	2.8
20°-30°	644.1	4.5
30°-40°	1074.7	7.6
40°-50°	2033.3	14.3
50°-60°	3230.9	22.7
60°-70°	3996.8	28.1
70°-80°	2484.5	17.5
80°-90°	200.8	1.4
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°	14231.0	100.0
0°-180°	14231.0	100.0

Coefficient of Utilization



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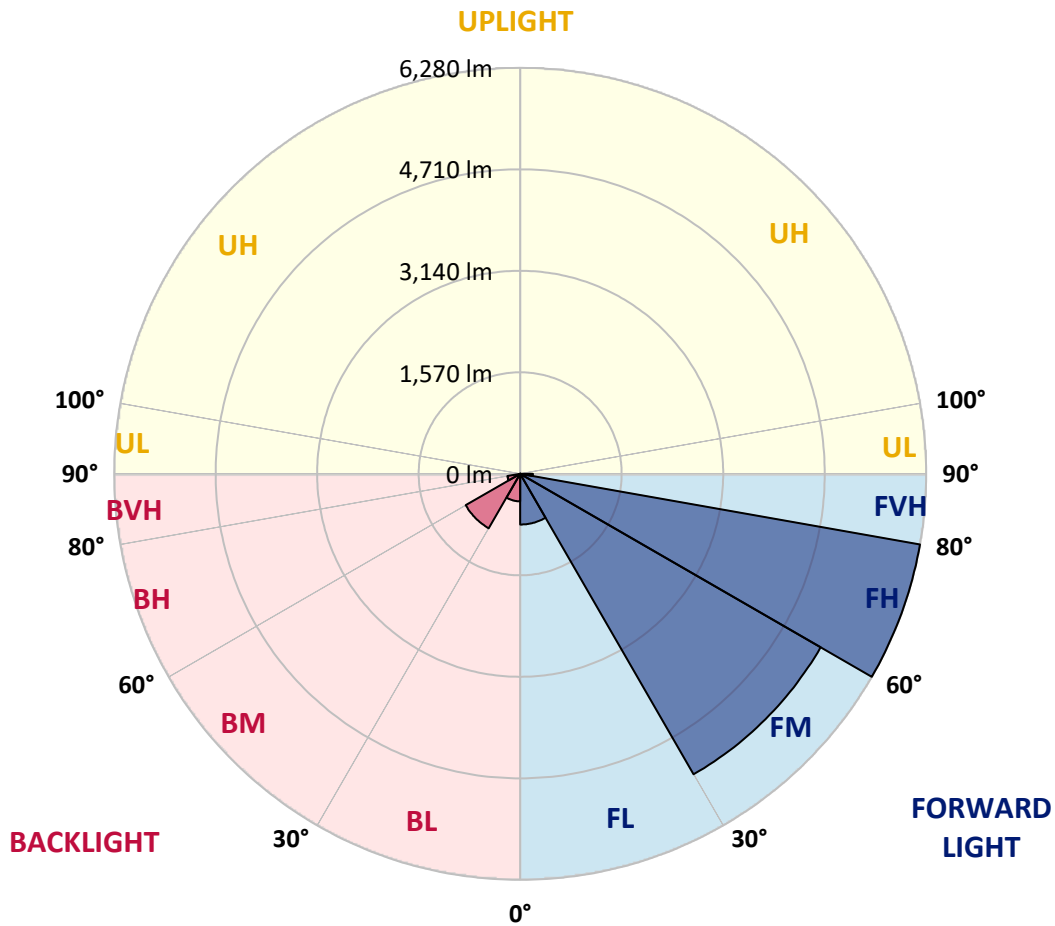
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	784.5	5.5			
FM (30°-60°)	5366.5	37.7			
FH (60°-80°)	6280.3	44.1			G3/7500
FVH (80°-90°)	198.1	1.4			G2/225
BL (0°-30°)	425.6	3.0	B1/500		
BM (30°-60°)	972.3	6.8	B1/1000		
BH (60°-80°)	201.0	1.4	B1/500		G1/500
BVH (80°-90°)	2.7	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	2062.5	2062.5	2062.5	2062.5	2062.5	2062.5	2062.5	2062.5	2062.5	2062.5	2062.5
2.5°	1970.8	1987.5	1990.6	1995.8	1995.8	2002.1	2012.5	2027.1	2051.1	2063.6	2071.9
5°	1816.5	1829.0	1844.6	1857.1	1881.1	1884.2	1924.9	1964.5	2019.8	2061.5	2090.7
7.5°	1661.1	1675.7	1696.5	1726.8	1758.1	1767.5	1829.0	1895.7	1983.3	2061.5	2110.5
10°	1551.6	1552.6	1571.4	1601.7	1651.7	1663.2	1738.3	1833.1	1942.6	2049.0	2129.3
12.5°	1490.1	1497.4	1505.7	1528.7	1576.6	1583.9	1664.2	1775.8	1902.0	2041.7	2151.2
15°	1490.1	1495.3	1500.5	1512.0	1550.6	1556.8	1627.7	1739.3	1881.1	2044.8	2186.6
17.5°	1505.7	1514.1	1509.9	1523.5	1564.1	1568.3	1630.9	1728.9	1880.1	2064.6	2240.9
20°	1543.3	1549.5	1541.2	1549.5	1590.2	1598.5	1663.2	1748.7	1897.8	2099.0	2308.6
22.5°	1602.7	1605.8	1586.0	1592.3	1634.0	1644.4	1719.5	1805.0	1940.5	2154.3	2399.4
25°	1677.8	1684.0	1653.8	1661.1	1700.7	1713.2	1799.8	1889.5	2008.3	2230.4	2515.1
27.5°	1764.3	1767.5	1741.4	1740.3	1791.4	1809.2	1896.8	1993.7	2099.0	2326.4	2661.1
30°	1863.4	1872.8	1847.7	1843.6	1908.2	1922.8	2009.4	2122.0	2232.5	2470.3	2868.6
32.5°	1941.6	1948.9	1934.3	1944.7	2010.4	2021.9	2146.0	2303.4	2442.1	2674.6	3151.2
35°	2054.2	2058.4	2025.0	2043.8	2118.9	2148.1	2332.6	2557.9	2705.9	2931.2	3520.3
37.5°	2461.9	2461.9	2320.1	2227.3	2299.3	2325.3	2588.1	2878.0	3031.3	3275.3	3985.4
40°	3026.0	3016.7	2809.2	2619.4	2610.0	2661.1	2952.0	3281.5	3451.5	3688.2	4508.8
42.5°	3627.7	3613.1	3330.5	3142.8	3111.6	3129.3	3372.2	3778.9	3952.0	4191.8	5071.9
45°	4161.6	4157.4	3898.8	3646.5	3590.2	3646.5	3896.7	4360.8	4484.8	4737.2	5633.9
47.5°	4608.9	4608.9	4420.2	4255.4	4226.2	4259.6	4606.8	5006.2	4994.7	5318.0	6181.4
50°	5124.0	5119.9	4940.5	4869.6	4899.9	4946.8	5424.4	5686.1	5522.4	5888.4	6670.4
52.5°	5484.8	5509.9	5448.3	5436.9	5591.2	5672.5	6254.4	6351.4	5994.7	6429.6	7036.4
55°	5770.5	5799.7	5870.7	5950.9	6248.1	6354.5	7058.3	6982.2	6389.9	6898.8	7247.1
57.5°	6175.1	6133.4	6242.9	6401.4	6882.1	7010.4	7837.3	7577.6	6708.0	7279.4	7270.0
60°	6666.3	6672.5	6691.3	6891.5	7515.1	7679.8	8604.7	8140.7	6912.4	7513.0	7015.6
62.5°	7256.5	7265.8	7304.4	7612.0	8364.9	8520.3	9422.2	8601.6	7006.2	7447.3	6358.7
65°	7215.8	7255.4	7686.1	8738.2	9656.9	9810.1	10376.4	8924.9	6864.4	6846.7	5177.2
67.5°	6573.5	6638.1	7358.6	10083.3	11604.7	11775.7	11529.6	8988.5	6252.3	5324.3	3377.5
70°	5730.9	5753.9	6620.4	11292.9	13860.2	14033.3	12561.9	8288.8	4744.5	2969.7	1513.0
72.5°	4475.5	4480.7	5497.4	11573.4	15084.3	15093.7	11751.7	6153.2	2551.6	1140.8	525.5
75°	3197.1	3165.8	3681.9	9385.7	13271.0	13377.4	8810.2	2886.3	975.0	539.1	261.7
77.5°	1714.3	1748.7	2083.4	5566.2	9167.8	9349.2	4807.1	832.1	496.3	367.0	173.1
80°	529.7	558.9	854.0	2548.5	5192.9	5302.4	1782.1	370.2	346.2	261.7	113.7
82.5°	166.8	173.1	398.3	1070.9	2155.4	2205.4	516.2	209.6	236.7	173.1	66.7
85°	48.0	49.0	177.3	399.4	532.8	543.3	144.9	81.3	135.6	107.4	34.4
87.5°	5.2	16.7	66.7	66.7	46.9	45.9	15.6	17.7	38.6	13.6	6.3
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°	2062.5	2062.5	2062.5	2062.5	2062.5	2062.5	2062.5	2062.5	2062.5	2062.5	2062.5
2.5°	2066.7	2067.8	2054.2	2031.3	2006.2	1985.4	1959.3	1938.5	1923.9	1919.7	1927.0
5°	2081.3	2074.0	2035.4	1965.6	1882.2	1810.2	1729.9	1666.3	1624.6	1606.9	1613.1
7.5°	2103.2	2082.4	1997.9	1860.3	1700.7	1558.9	1415.0	1303.4	1232.5	1197.1	1202.3
10°	2122.0	2080.3	1935.3	1708.0	1464.0	1249.2	1055.3	920.7	845.7	810.2	811.3
12.5°	2139.7	2079.2	1854.0	1527.6	1197.1	934.3	753.9	687.2	666.3	659.0	656.9
15°	2173.1	2082.4	1751.8	1321.2	931.2	705.9	640.2	639.2	643.4	641.3	640.2
17.5°	2219.0	2085.5	1636.1	1102.2	718.5	622.5	619.4	628.8	635.0	631.9	630.9
20°	2278.4	2098.0	1513.0	885.3	617.3	601.7	609.0	617.3	622.5	617.3	616.3
22.5°	2361.8	2119.9	1378.5	711.2	585.0	589.2	595.4	604.8	610.0	602.7	601.7
25°	2464.0	2154.3	1246.1	618.3	569.3	574.6	583.9	594.4	600.6	593.3	592.3
27.5°	2596.4	2209.6	1124.1	597.5	553.7	556.8	570.4	586.0	594.4	585.0	585.0
30°	2788.3	2300.3	1018.8	606.9	544.3	537.0	555.8	577.7	587.1	578.7	577.7
32.5°	3042.7	2428.6	954.1	621.5	540.1	514.1	531.8	560.0	575.6	570.4	570.4
35°	3376.4	2623.5	929.1	638.2	537.0	490.1	502.6	532.8	560.0	565.2	565.2
37.5°	3781.0	2894.7	936.4	645.5	527.6	470.3	476.5	502.6	538.1	554.7	558.9
40°	4240.8	3210.6	978.1	638.2	517.2	453.6	454.6	474.4	505.7	530.8	539.1
42.5°	4715.3	3579.7	1055.3	611.0	507.8	439.0	435.9	449.4	470.3	488.0	495.3
45°	5166.8	3959.3	1131.4	573.5	496.3	424.4	417.1	422.3	426.5	433.8	438.0
47.5°	5561.0	4226.2	1109.5	539.1	480.7	407.7	395.2	393.1	380.6	379.6	378.5
50°	5833.1	4284.6	985.4	504.7	457.8	388.9	369.1	356.6	334.7	324.3	325.3
52.5°	5919.7	4054.2	805.0	470.3	420.2	363.9	335.8	316.0	288.8	279.5	278.4
55°	5805.0	3602.7	643.4	428.6	368.1	330.6	299.3	273.2	251.3	239.8	239.8
57.5°	5524.5	3028.1	508.9	379.6	312.8	293.0	261.7	235.7	216.9	205.4	203.3
60°	5059.4	2404.6	402.5	321.2	266.9	252.3	220.0	203.3	186.7	173.1	170.0
62.5°	4353.5	1716.4	316.0	254.4	223.1	206.5	187.7	175.2	155.4	136.6	133.5
65°	3397.3	1050.0	244.0	186.7	179.4	171.0	159.5	148.1	124.1	105.3	102.2
67.5°	2142.8	497.4	174.1	140.8	141.8	137.6	132.4	123.0	105.3	88.6	86.5
70°	943.7	240.9	114.7	107.4	105.3	105.3	109.5	106.4	89.7	74.0	70.9
72.5°	321.2	129.3	85.5	81.3	76.1	75.1	91.8	88.6	71.9	57.4	54.2
75°	167.9	86.5	62.6	58.4	45.9	55.3	73.0	68.8	51.1	37.5	34.4
77.5°	109.5	61.5	42.8	37.5	26.1	36.5	54.2	48.0	30.2	18.8	16.7
80°	68.8	40.7	25.0	17.7	12.5	19.8	29.2	20.9	11.5	4.2	3.1
82.5°	36.5	20.9	9.4	6.3	5.2	6.3	7.3	5.2	2.1	0.0	0.0
85°	14.6	7.3	3.1	2.1	1.0	0.0	2.1	1.0	0.0	0.0	0.0
87.5°	5.2	1.0	0.0	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)