

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: P963609

Luminaire Tested: **NAV-SB3A-760-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963609
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-SB3A-760-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 5700K, 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: 11154 lumens
Efficiency: N/A
Efficacy: 131.7 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): 84.7
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

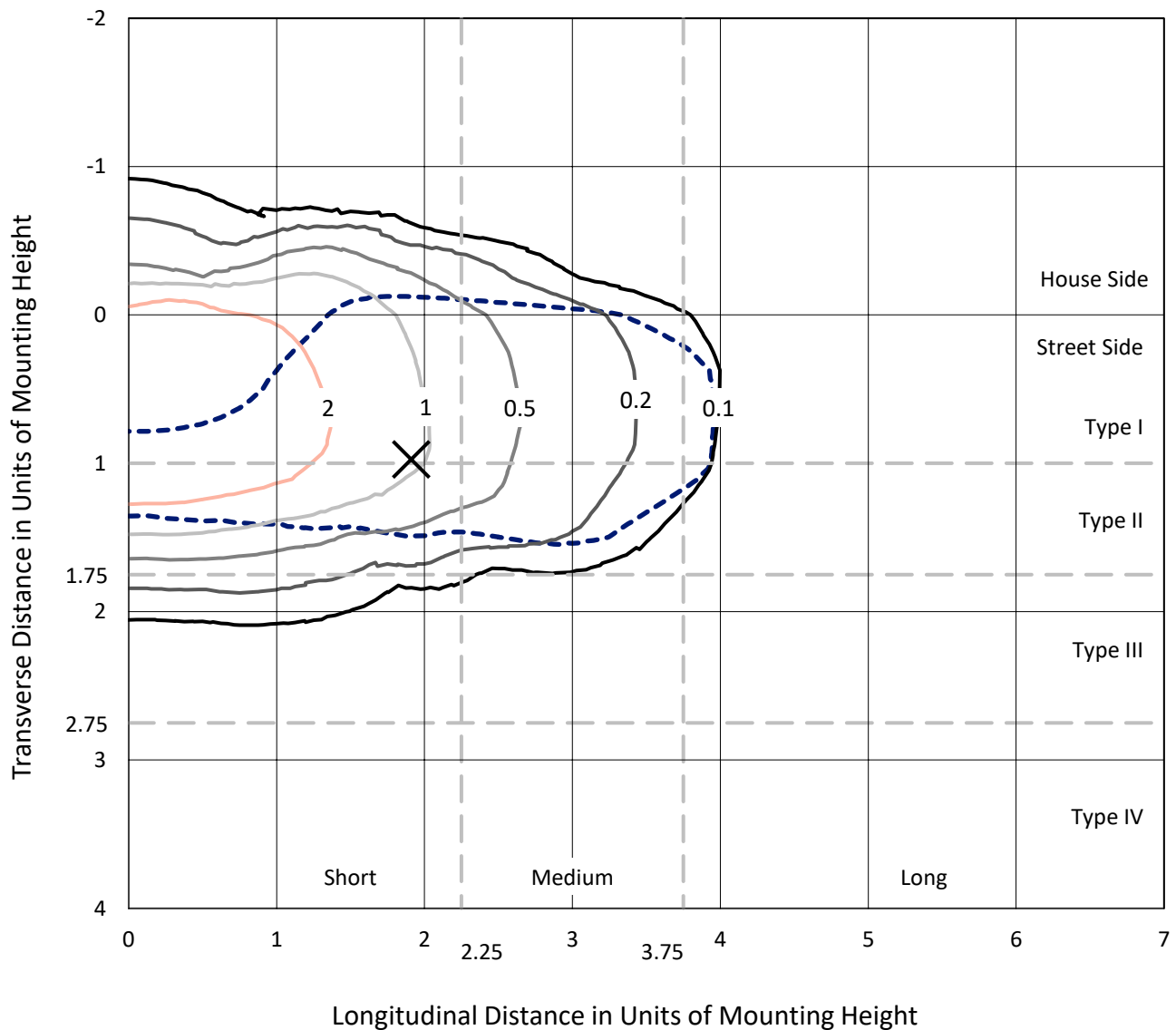


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Iso-Footcandle Lines of Horizontal Illumination

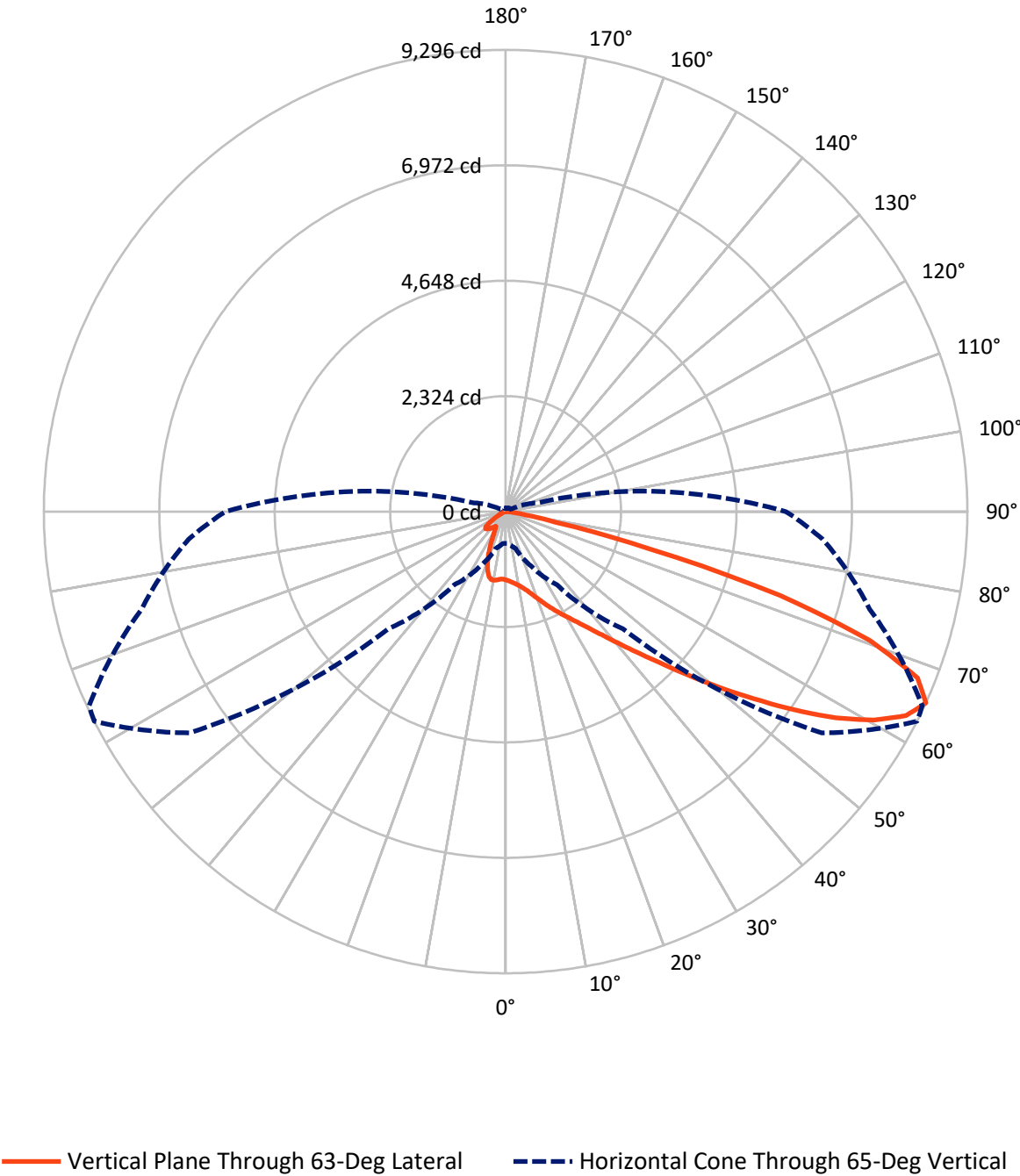
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.8 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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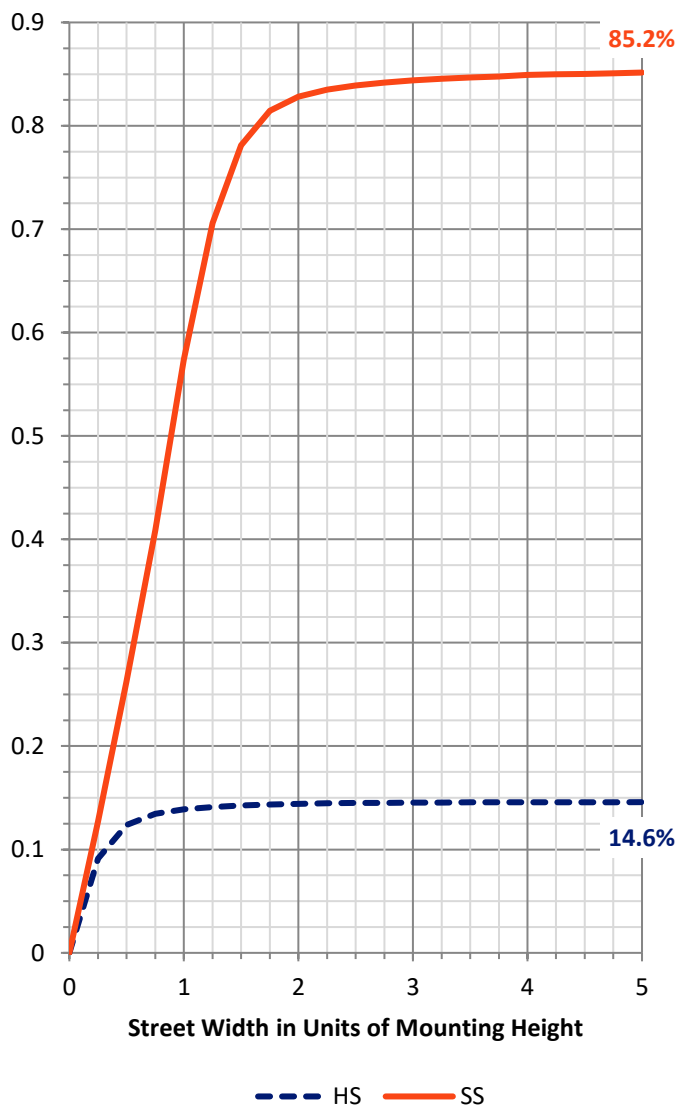
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1639.6	0.0	1639.6
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	9514.5	0.0	9514.5
	% Fixture	85.3	0.0	85.3
Total	Lumens	11154.0	0.0	11154.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.7	1.2
10°-20°	359.9	3.2
20°-30°	626.6	5.6
30°-40°	1129.5	10.1
40°-50°	2240.1	20.1
50°-60°	3051.3	27.4
60°-70°	2435.6	21.8
70°-80°	1102.2	9.9
80°-90°	79.2	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°	11154.0	100.0
0°-180°	11154.0	100.0

Coefficient of Utilization



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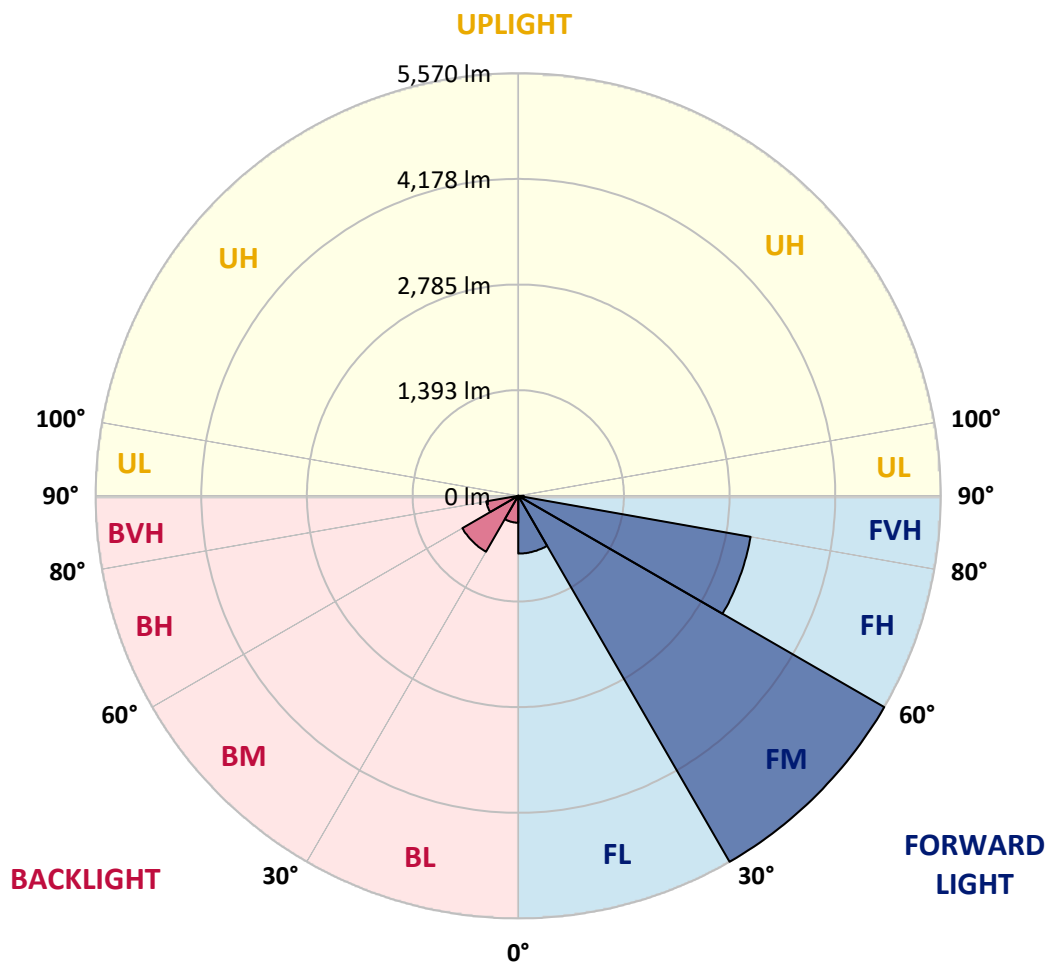
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	761.4	6.8			
FM	(30°-60°)	5570.0	49.9			
FH	(60°-80°)	3109.7	27.9			G2/5000
FVH	(80°-90°)	73.3	0.7			G1/100
BL	(0°-30°)	354.8	3.2	B1/500		
BM	(30°-60°)	850.8	7.6	B1/1000		
BH	(60°-80°)	428.0	3.8	B1/500		G1/500
BVH	(80°-90°)	5.9	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°	1376.6	1376.6	1376.6	1376.6	1376.6	1376.6	1376.6	1376.6	1376.6	1376.6	1376.6
2.5°	1408.9	1405.0	1410.4	1408.0	1406.5	1403.4	1401.9	1400.5	1397.4	1395.0	1385.8
5°	1412.7	1410.4	1415.7	1420.3	1425.0	1429.6	1431.8	1434.9	1431.8	1425.8	1416.6
7.5°	1380.5	1378.9	1390.4	1404.2	1425.0	1442.6	1461.8	1472.5	1473.3	1471.0	1461.0
10°	1378.1	1374.3	1385.8	1402.7	1429.6	1461.0	1494.8	1517.8	1520.9	1530.8	1520.1
12.5°	1414.2	1410.4	1426.5	1444.9	1472.5	1505.5	1546.9	1579.2	1583.8	1597.7	1590.0
15°	1474.9	1469.4	1487.9	1511.7	1546.9	1584.5	1628.3	1657.4	1661.3	1678.2	1664.4
17.5°	1545.4	1540.1	1561.6	1586.9	1625.2	1676.7	1727.3	1759.5	1764.1	1774.9	1749.6
20°	1636.0	1629.0	1645.9	1669.0	1709.7	1771.0	1831.7	1877.7	1877.0	1877.0	1835.5
22.5°	1741.1	1730.4	1745.0	1763.4	1801.7	1876.2	1956.7	2011.3	2011.3	1989.7	1921.5
25°	1853.9	1843.2	1859.2	1876.2	1909.9	1994.3	2088.7	2156.3	2159.3	2122.5	2013.5
27.5°	1995.1	1981.3	1993.5	2013.5	2033.5	2119.4	2231.4	2309.7	2311.3	2254.5	2101.0
30°	2266.8	2227.6	2189.2	2167.8	2177.0	2262.2	2381.9	2468.5	2476.2	2398.0	2196.2
32.5°	2764.0	2756.3	2621.2	2444.7	2352.7	2415.6	2549.9	2654.2	2658.8	2558.3	2319.7
35°	3536.7	3527.5	3310.3	2974.2	2674.2	2621.2	2754.0	2877.6	2874.5	2760.9	2480.1
37.5°	4459.1	4450.7	4164.4	3714.7	3229.0	2932.0	3017.2	3146.9	3166.1	3017.2	2687.2
40°	5247.1	5215.6	5034.6	4601.0	3965.6	3447.7	3391.6	3477.6	3497.6	3321.1	2950.5
42.5°	5844.1	5817.3	5725.1	5454.3	4857.3	4210.4	3832.9	3865.9	3888.1	3676.4	3252.7
45°	6153.4	6147.2	6184.0	6158.7	5765.8	5146.6	4463.7	4326.3	4334.7	4070.0	3595.8
47.5°	6197.0	6194.1	6362.1	6600.0	6547.0	6202.5	5273.2	4900.3	4870.4	4514.3	3968.7
50°	5939.3	5933.1	6255.4	6701.2	7068.8	7089.5	6192.5	5547.2	5481.2	4973.9	4357.8
52.5°	5115.9	5114.3	5643.9	6385.9	7252.2	7866.1	7101.0	6257.7	6147.2	5460.5	4769.0
55°	3936.5	3964.9	4571.8	5448.9	6917.6	8239.8	7916.7	7046.6	6876.9	5950.0	5148.2
57.5°	2788.5	2830.0	3430.1	4211.2	5880.2	8018.8	8468.4	7836.9	7654.3	6438.0	5532.5
60°	1497.8	1534.7	2135.5	3067.8	4374.6	7194.7	8759.2	8522.9	8350.3	6901.5	5879.4
62.5°	892.5	904.7	1153.3	1980.5	2958.9	5496.5	8635.7	9045.5	8903.6	7290.5	6181.0
65°	640.7	643.1	768.1	1209.3	1796.3	3339.4	7769.4	9295.6	9251.9	7583.7	6404.3
67.5°	539.5	537.9	590.1	803.4	1224.0	1672.8	5954.6	8941.9	9127.6	7769.4	6530.9
70°	462.7	465.0	526.4	588.6	920.0	946.9	2960.4	7785.5	8181.4	7818.5	6523.2
72.5°	344.5	352.2	409.0	536.4	694.4	651.5	1022.1	5772.8	6488.7	7366.6	6184.8
75°	243.2	247.1	287.7	451.2	517.9	474.3	521.8	2984.2	3902.0	5647.6	5062.2
77.5°	187.3	194.1	217.9	315.4	510.2	333.0	319.2	1032.9	1586.9	3411.6	3470.8
80°	101.3	113.6	157.3	227.9	358.3	235.5	158.1	411.3	537.9	1595.3	1338.2
82.5°	52.2	58.3	109.8	164.2	204.1	205.6	78.3	171.1	221.8	492.6	183.4
85°	20.7	25.3	73.7	90.5	105.2	101.3	35.3	69.1	79.8	136.6	56.1
87.5°	4.6	7.7	26.9	20.7	20.0	21.5	8.4	16.1	15.4	16.1	9.9
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°	1376.6	1376.6	1376.6	1376.6	1376.6	1376.6	1376.6	1376.6	1376.6	1376.6	1376.6
2.5°	1385.1	1382.0	1373.5	1364.4	1353.6	1347.5	1343.7	1342.9	1337.5	1333.6	1337.5
5°	1408.0	1405.0	1388.9	1369.7	1349.0	1332.9	1317.5	1303.7	1283.8	1279.9	1278.4
7.5°	1454.2	1445.7	1419.6	1393.5	1354.3	1307.6	1250.8	1185.5	1127.2	1109.6	1101.2
10°	1511.0	1499.4	1466.4	1420.3	1333.6	1206.2	1068.9	941.6	840.3	811.9	801.1
12.5°	1575.3	1565.4	1521.6	1436.4	1246.9	1016.0	805.8	647.6	549.4	524.9	517.9
15°	1652.1	1637.5	1576.9	1411.9	1091.9	771.9	553.3	459.6	424.4	419.7	415.1
17.5°	1733.5	1709.7	1626.0	1323.7	883.2	548.7	427.4	400.6	385.2	380.6	378.3
20°	1807.9	1777.1	1655.2	1190.1	659.9	427.4	382.9	365.2	351.5	346.0	343.0
22.5°	1882.3	1838.5	1655.2	1008.3	495.0	379.0	351.5	335.4	319.2	312.3	308.4
25°	1959.8	1901.5	1626.0	805.8	398.2	347.6	321.5	303.9	290.1	281.6	278.6
27.5°	2035.0	1954.5	1559.2	613.9	354.5	320.0	293.9	277.1	263.9	257.8	257.8
30°	2106.4	2006.6	1465.6	465.8	326.2	293.2	268.5	254.0	241.0	234.8	235.5
32.5°	2203.0	2072.7	1365.9	382.1	301.6	267.8	245.6	231.8	220.3	215.7	215.7
35°	2337.3	2170.0	1279.9	375.3	280.8	247.1	224.8	211.8	200.3	196.4	196.4
37.5°	2527.6	2327.4	1234.6	421.3	263.9	228.7	208.0	194.1	183.4	180.3	179.6
40°	2762.5	2540.7	1259.2	467.3	252.5	212.6	192.6	178.8	169.5	165.7	165.0
42.5°	3041.0	2803.9	1395.0	502.7	244.8	198.7	178.0	162.7	156.5	155.0	155.0
45°	3361.0	3093.1	1603.0	540.2	232.5	185.7	163.5	151.9	147.3	146.6	145.8
47.5°	3724.7	3410.9	1844.0	587.0	220.3	173.4	151.9	144.2	140.4	138.9	138.9
50°	4085.3	3730.8	2091.8	613.2	210.2	162.0	142.7	136.6	133.6	132.7	132.7
52.5°	4462.8	4060.0	2292.1	588.6	201.8	152.7	135.1	130.5	127.4	126.6	126.6
55°	4822.7	4326.3	2326.5	499.6	184.9	143.5	126.6	124.3	120.4	120.4	119.7
57.5°	5132.8	4459.8	2082.6	366.7	168.1	129.7	118.2	115.8	112.7	112.0	111.3
60°	5417.4	4421.4	1607.6	247.1	149.6	115.8	107.4	105.9	102.8	99.0	98.2
62.5°	5577.8	4252.6	1099.6	161.1	131.2	101.3	95.1	94.4	87.4	79.8	78.3
65°	5638.4	3905.8	686.0	117.4	109.8	86.7	82.1	80.6	70.6	62.1	61.4
67.5°	5585.5	3334.9	346.0	92.9	86.7	72.2	67.5	67.5	60.6	53.0	52.2
70°	5373.8	2500.0	145.8	74.4	66.7	55.2	55.2	58.3	51.5	42.9	42.2
72.5°	4914.1	1682.0	77.5	56.8	49.9	39.2	45.3	47.6	40.7	32.2	32.2
75°	3906.6	1025.9	53.7	42.2	31.5	27.7	34.5	36.1	27.7	21.5	20.7
77.5°	2671.9	589.3	36.1	26.9	20.0	16.1	23.8	22.2	14.6	9.9	10.8
80°	1173.3	245.6	20.7	12.3	7.7	6.1	8.4	6.1	4.6	3.1	3.1
82.5°	137.4	57.5	7.7	4.6	3.1	1.5	0.7	0.0	0.0	0.0	0.0
85°	28.4	6.9	3.8	1.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.3	1.5	0.7	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)