

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: P967855

Luminaire Tested: **NAV-SB5A-827-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967855
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-827-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20571.7 lumens
Efficiency: N/A
Efficacy: 145.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - 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



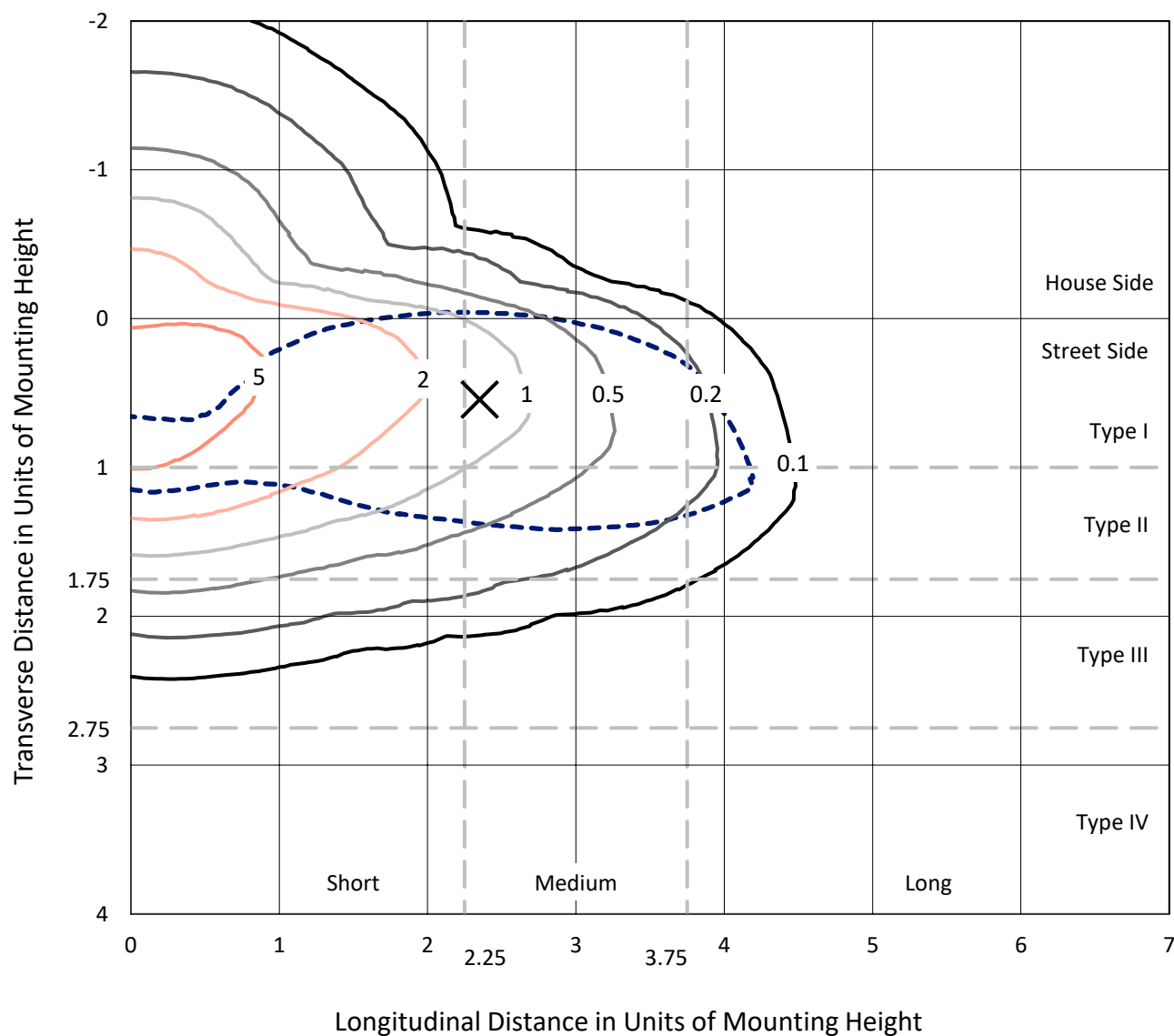
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

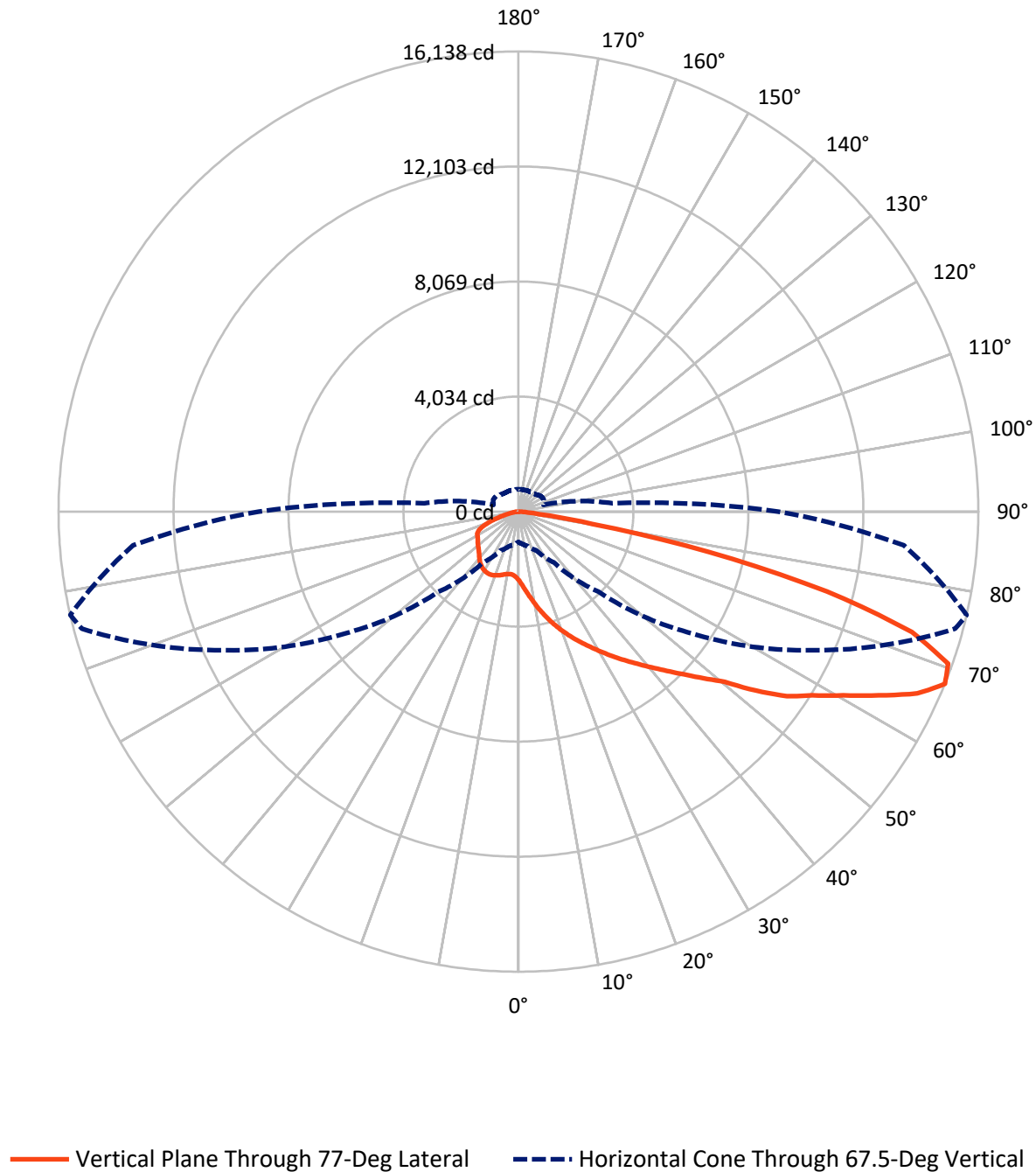
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.5 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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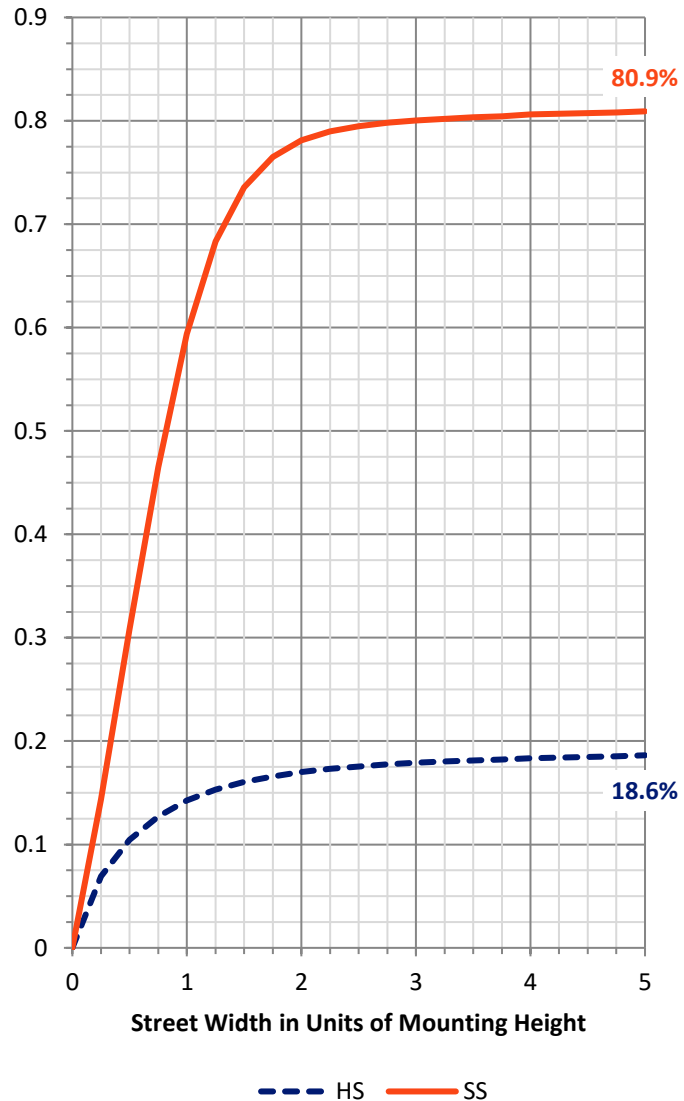
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3891.3	0.0	3891.3
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	16680.4	0.0	16680.4
	% Fixture	81.1	0.0	81.1
Total	Lumens	20571.7	0.0	20571.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	258.7	1.3
10°-20°	929.5	4.5
20°-30°	1754.9	8.5
30°-40°	2827.2	13.7
40°-50°	3867.0	18.8
50°-60°	4362.0	21.2
60°-70°	4071.4	19.8
70°-80°	2231.8	10.8
80°-90°	269.2	1.3
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°	20571.7	100.0
0°-180°	20571.7	100.0

Coefficient of Utilization



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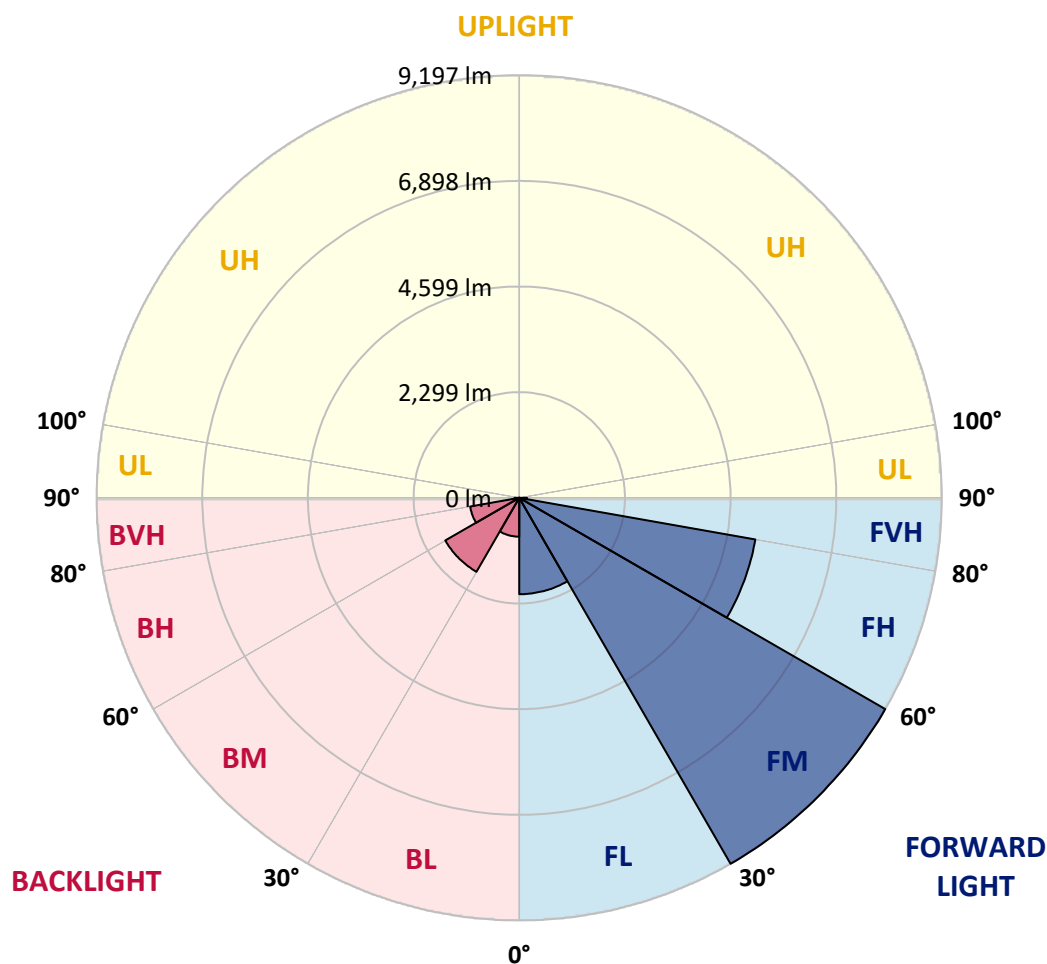
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2097.0	10.2			
FM	(30°-60°)	9197.4	44.7			
FH	(60°-80°)	5217.6	25.4			G3/7500
FVH	(80°-90°)	168.4	0.8			G2/225
BL	(0°-30°)	846.1	4.1	B2/1000		
BM	(30°-60°)	1858.8	9.0	B2/2500		
BH	(60°-80°)	1085.6	5.3	B3/2500		G3/2500
BVH	(80°-90°)	100.8	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 Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2413.7	2413.7	2413.7	2413.7	2413.7	2413.7	2413.7	2413.7	2413.7	2413.7	2413.7
2.5°	3022.2	3043.4	3016.9	3016.9	2927.7	2881.0	2791.8	2723.7	2601.7	2580.4	2499.8
5°	3572.2	3598.8	3561.7	3545.7	3440.5	3344.0	3194.2	3046.6	2828.9	2806.7	2616.5
7.5°	3998.1	4032.0	3999.1	3982.1	3888.6	3780.4	3605.1	3399.1	3092.2	3048.8	2773.6
10°	4345.3	4350.6	4340.0	4346.4	4273.1	4183.9	4004.5	3764.4	3381.1	3321.6	2963.8
12.5°	4541.8	4566.2	4587.4	4625.6	4612.9	4557.7	4396.3	4109.5	3686.9	3610.5	3170.8
15°	4634.1	4676.7	4724.4	4812.6	4883.7	4897.4	4774.3	4480.2	3998.1	3905.7	3380.0
17.5°	4667.0	4707.4	4782.9	4910.3	5063.2	5166.2	5111.0	4840.2	4306.0	4199.8	3599.8
20°	4833.8	4845.5	4891.1	5012.1	5177.8	5348.8	5390.3	5186.3	4610.8	4490.8	3827.1
22.5°	5190.6	5167.2	5179.9	5235.2	5354.1	5519.7	5614.2	5492.2	4924.0	4786.0	4056.4
25°	5780.0	5712.0	5644.1	5580.3	5640.8	5734.3	5841.6	5798.0	5252.2	5076.9	4288.0
27.5°	6524.3	6441.5	6291.8	6082.6	6009.3	6042.3	6090.0	6081.5	5555.9	5378.6	4526.9
30°	7257.0	7160.4	6982.0	6679.4	6486.1	6399.1	6362.9	6338.5	5886.2	5697.2	4768.0
32.5°	7842.2	7765.7	7590.4	7251.8	6971.4	6822.7	6702.8	6615.7	6231.3	6042.3	5022.8
35°	8354.0	8282.8	8082.1	7712.6	7407.9	7249.6	7092.5	6906.7	6590.1	6399.1	5296.8
37.5°	8821.3	8750.1	8475.0	8090.6	7783.7	7674.4	7534.2	7218.8	6950.1	6769.6	5586.7
40°	9116.5	9100.5	8843.5	8408.2	8089.6	8035.4	7988.6	7580.9	7349.5	7181.7	5905.2
42.5°	9191.8	9226.8	9023.0	8665.1	8361.4	8317.9	8427.2	7990.8	7797.6	7637.2	6266.3
45°	9010.3	9111.1	8977.4	8734.1	8554.6	8531.3	8815.9	8438.9	8293.5	8146.9	6701.7
47.5°	8550.4	8721.4	8666.2	8632.2	8606.7	8707.6	9157.9	8914.6	8855.2	8727.8	7198.7
50°	7622.3	7946.2	8042.9	8257.4	8503.7	8844.6	9468.9	9433.9	9511.5	9383.0	7803.9
52.5°	6017.8	6463.8	7024.5	7561.8	8187.3	8798.9	9810.9	10179.4	10506.5	10436.3	8766.0
55°	4967.6	5168.3	5599.4	6584.9	7573.5	8606.7	9964.9	10781.5	11494.0	11431.4	9495.5
57.5°	4160.6	4340.0	4605.4	5428.4	6645.4	8170.3	10060.5	11148.9	12170.4	12164.1	10215.5
60°	3295.1	3485.2	3757.0	4340.0	5561.1	7416.3	10039.3	11567.3	13033.8	13086.9	11093.7
62.5°	2318.1	2527.3	2828.9	3372.6	4453.6	6439.4	9606.0	11869.9	14050.1	14194.5	12150.2
65°	1523.9	1661.8	1889.1	2358.5	3318.4	5183.1	8778.7	11909.3	15137.4	15381.7	13142.1
67.5°	1068.3	1121.4	1255.2	1510.0	2187.6	3974.7	7461.0	11502.6	15862.7	16137.7	13572.2
70°	833.6	860.2	928.1	1030.0	1374.1	2672.8	5717.2	10444.9	15707.7	15994.4	13123.0
72.5°	720.0	745.5	770.9	783.7	921.8	1650.1	3872.8	8733.1	14247.6	14441.8	11410.2
75°	653.0	659.5	680.7	676.4	702.9	1070.4	2235.3	6362.9	11241.3	11174.4	8423.0
77.5°	549.0	557.5	592.6	587.2	624.4	731.6	1160.7	4106.4	7287.9	6833.4	4688.3
80°	465.1	469.3	507.6	501.2	542.6	529.9	592.6	2093.0	3091.2	2618.7	1351.8
82.5°	161.4	199.7	387.6	399.2	414.1	320.7	341.9	853.7	944.0	723.1	283.5
85°	78.6	83.8	197.5	280.3	279.3	161.4	166.8	304.7	297.4	233.6	94.5
87.5°	12.7	15.9	23.4	109.4	87.1	42.4	57.3	59.4	61.6	53.1	21.2
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°	2413.7	2413.7	2413.7	2413.7	2413.7	2413.7	2413.7	2413.7	2413.7	2413.7	2413.7
2.5°	2440.2	2387.1	2275.7	2172.7	2091.9	2014.4	1970.9	1933.8	1912.4	1908.2	1908.2
5°	2506.1	2396.8	2193.9	2022.9	1911.4	1828.6	1785.0	1757.5	1743.6	1735.1	1734.1
7.5°	2600.6	2440.2	2151.4	1957.1	1840.3	1780.8	1758.5	1754.3	1753.2	1754.3	1757.5
10°	2731.2	2511.4	2147.2	1941.1	1843.5	1810.6	1809.4	1810.6	1814.8	1815.9	1816.9
12.5°	2872.5	2584.6	2164.2	1955.0	1883.8	1865.8	1862.5	1861.5	1864.7	1866.8	1867.9
15°	3026.4	2681.3	2192.8	1984.7	1928.4	1909.3	1906.1	1899.7	1898.7	1897.6	1896.6
17.5°	3184.7	2776.8	2224.7	2016.6	1957.1	1930.6	1918.9	1904.0	1892.4	1889.1	1892.4
20°	3345.0	2871.4	2247.0	2032.5	1959.2	1922.1	1898.7	1873.2	1853.0	1841.3	1845.6
22.5°	3516.0	2970.1	2260.8	2028.3	1940.1	1889.1	1846.6	1816.9	1786.2	1766.0	1767.0
25°	3682.7	3056.1	2259.7	2005.9	1902.9	1838.1	1784.0	1745.8	1703.2	1682.0	1682.0
27.5°	3843.0	3133.6	2233.2	1966.7	1849.8	1777.7	1712.9	1667.2	1625.8	1605.6	1604.5
30°	4008.7	3198.4	2191.8	1909.3	1787.2	1707.5	1636.4	1597.1	1559.9	1540.8	1539.8
32.5°	4173.3	3258.0	2133.3	1838.1	1714.9	1638.6	1568.5	1532.4	1510.0	1510.0	1511.1
35°	4347.4	3299.4	2055.8	1755.3	1638.6	1565.3	1510.0	1488.8	1486.7	1473.9	1470.8
37.5°	4531.1	3325.9	1961.3	1670.3	1563.1	1494.1	1477.1	1451.6	1430.4	1402.8	1398.5
40°	4724.4	3352.5	1847.7	1582.2	1483.5	1445.2	1437.8	1403.8	1343.3	1275.3	1265.8
42.5°	4959.1	3370.5	1729.8	1494.1	1399.6	1386.8	1397.5	1339.1	1242.4	1191.5	1192.5
45°	5231.0	3400.2	1621.6	1407.0	1313.5	1313.5	1358.1	1281.8	1202.1	1170.2	1175.6
47.5°	5583.5	3469.2	1520.7	1311.5	1233.9	1255.2	1271.1	1212.7	1168.1	1128.8	1127.7
50°	6093.2	3634.9	1416.6	1214.8	1173.4	1215.9	1193.6	1159.6	1107.6	1075.7	1072.6
52.5°	6726.0	3732.6	1324.2	1127.7	1121.4	1163.9	1132.0	1100.1	1060.9	1018.3	1009.8
55°	7157.3	3750.7	1246.7	1064.1	1086.3	1082.1	1070.4	1041.7	1020.5	964.2	965.2
57.5°	7639.3	3786.8	1183.0	1025.8	1064.1	1017.3	1013.0	988.6	961.0	922.8	910.1
60°	8216.0	3843.0	1127.7	1011.0	1044.9	974.9	953.6	944.0	916.5	897.3	902.6
62.5°	8844.6	3894.0	1071.4	1013.0	1022.6	933.4	901.6	898.4	881.4	875.0	875.0
65°	9273.6	3754.9	1001.4	1011.0	987.6	890.9	850.5	849.5	835.7	833.6	832.5
67.5°	9123.8	3314.2	906.8	981.2	951.5	848.5	803.9	799.6	781.6	782.6	782.6
70°	8374.1	2685.6	776.2	907.9	906.8	810.3	755.0	741.2	716.8	721.0	725.3
72.5°	6968.3	1990.0	601.1	785.8	835.7	775.2	698.7	676.4	645.6	649.8	648.8
75°	5032.3	1352.9	437.5	597.9	727.4	733.8	643.5	605.3	568.2	574.5	576.6
77.5°	2575.1	766.7	321.7	412.0	571.3	666.9	593.6	542.6	534.1	593.6	585.1
80°	840.0	384.4	223.0	288.8	374.8	545.8	520.3	462.0	459.8	473.7	406.7
82.5°	250.6	162.5	143.4	190.0	207.0	418.4	449.2	349.3	300.5	316.4	327.1
85°	86.0	78.6	81.8	94.5	98.7	245.3	314.4	231.4	218.7	241.1	237.9
87.5°	20.2	27.6	23.4	21.2	21.2	59.4	122.1	96.7	133.8	89.2	86.0
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)