

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: P961033

Luminaire Tested: **NAV-SB1D-830-U-T2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961033
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-830-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II OPTICS WITH
HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6846 lumens
Efficiency: N/A
Efficacy: 86.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

Input Watts (W): 79.6
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

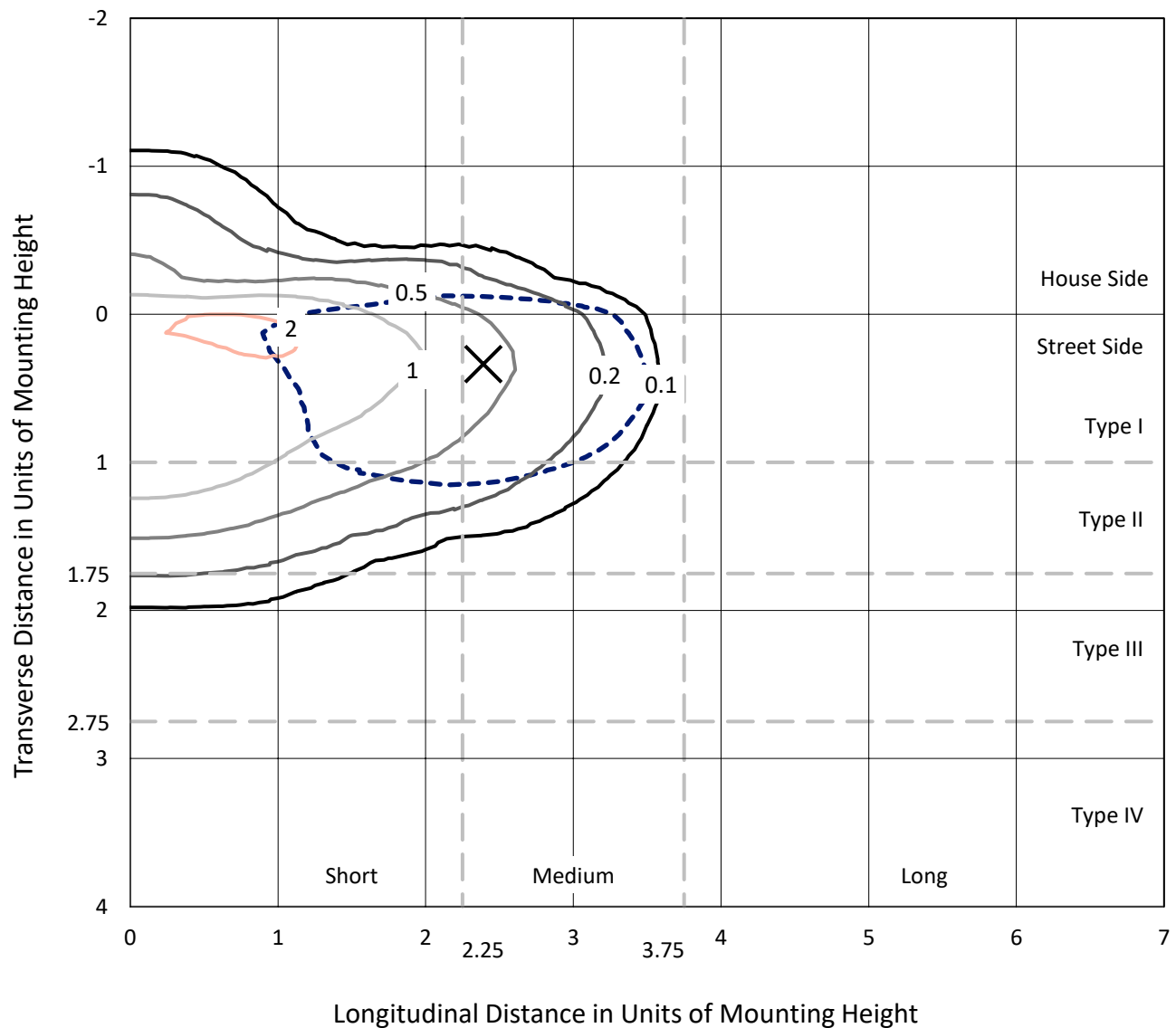


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Iso-Footcandle Lines of Horizontal Illumination

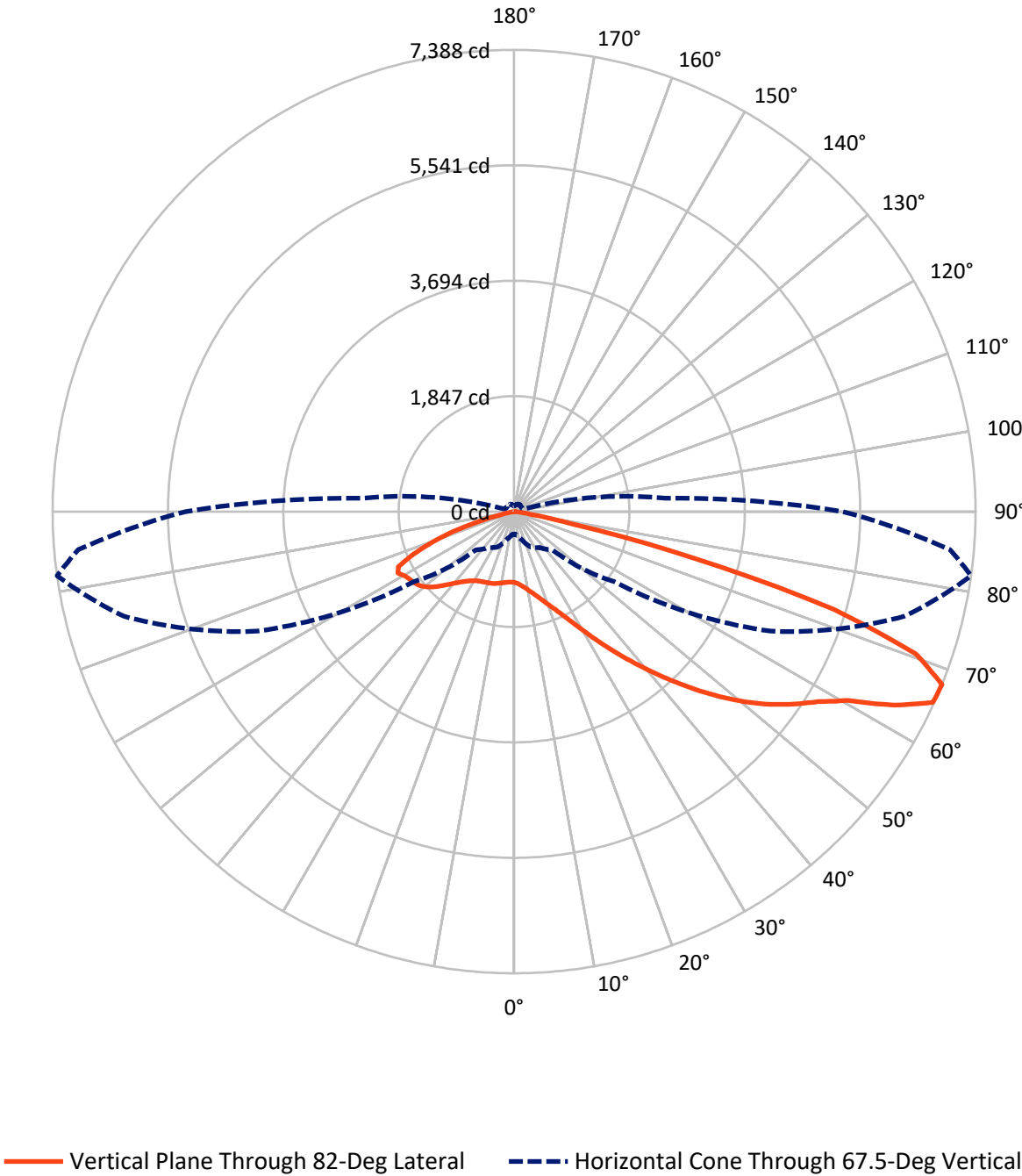
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.4 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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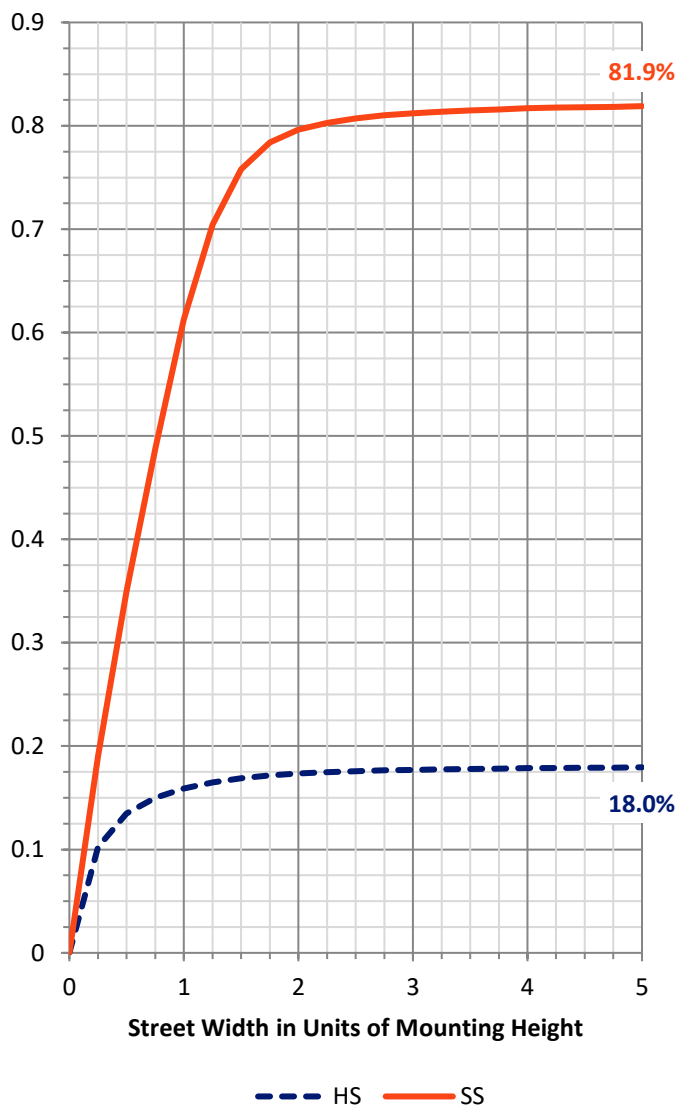
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1240.1	0.0	1240.1
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	5605.9	0.0	5605.9
	% Fixture	81.9	0.0	81.9
Total	Lumens	6846.0	0.0	6846.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.0	1.5
10°-20°	262.6	3.8
20°-30°	420.6	6.1
30°-40°	743.7	10.9
40°-50°	1303.0	19.0
50°-60°	1737.8	25.4
60°-70°	1617.8	23.6
70°-80°	620.9	9.1
80°-90°	38.6	0.6
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°	6846.0	100.0
0°-180°	6846.0	100.0

Coefficient of Utilization



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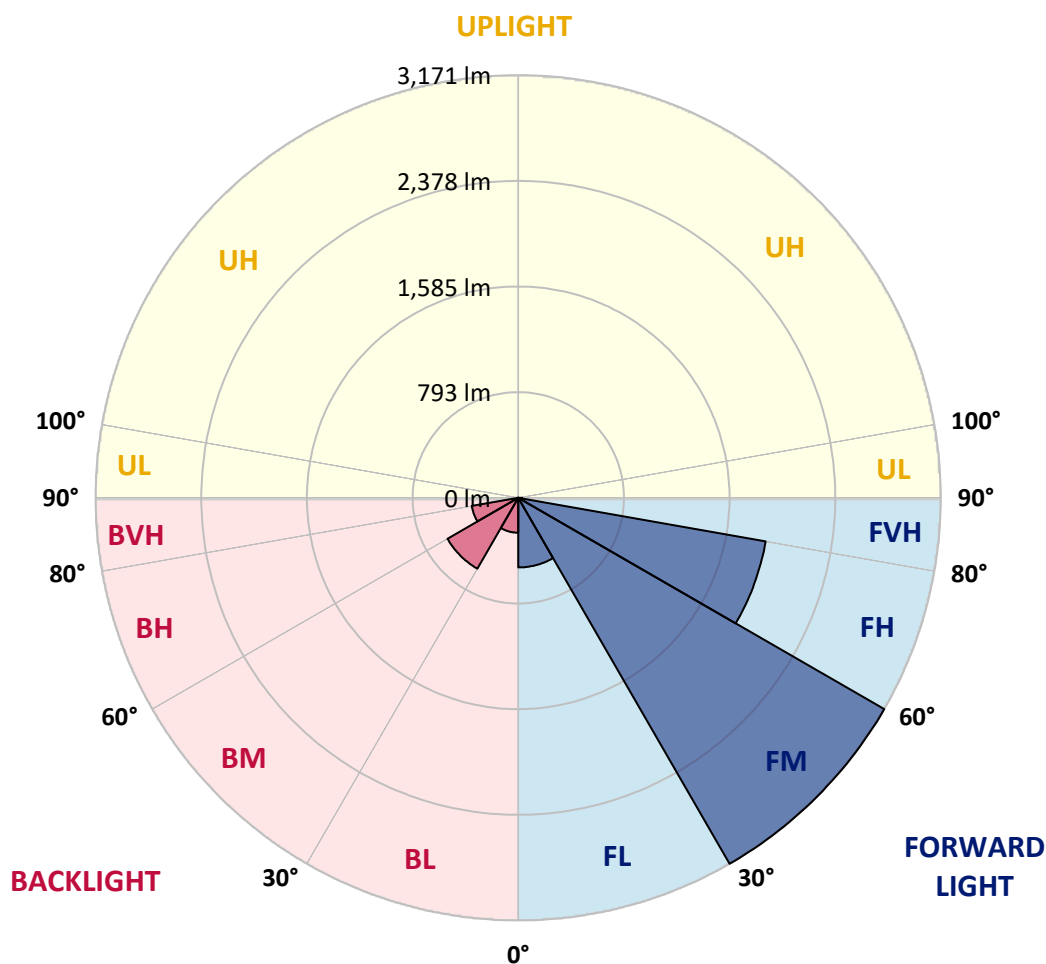
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	522.3	7.6			
FM	(30°-60°)	3170.8	46.3			
FH	(60°-80°)	1884.8	27.5			G2/5000
FVH	(80°-90°)	28.0	0.4			G1/100
BL	(0°-30°)	261.9	3.8	B1/500		
BM	(30°-60°)	613.7	9.0	B1/1000		
BH	(60°-80°)	353.9	5.2	B1/500		G1/500
BVH	(80°-90°)	10.5	0.2			G1/100
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 Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	1134.2	1134.2	1134.2	1134.2	1134.2	1134.2	1134.2	1134.2	1134.2	1134.2	1134.2
2.5°	1198.7	1205.6	1201.7	1199.7	1196.3	1191.4	1187.4	1175.1	1162.2	1153.8	1150.9
5°	1222.8	1229.8	1229.3	1231.2	1233.7	1235.2	1234.2	1220.4	1202.1	1187.9	1179.5
7.5°	1202.1	1210.0	1216.5	1226.3	1243.5	1261.8	1270.7	1267.7	1249.0	1229.3	1218.9
10°	1143.5	1151.9	1167.2	1190.3	1226.8	1266.3	1299.3	1314.6	1302.7	1281.0	1266.7
12.5°	1036.1	1044.5	1074.5	1124.7	1185.9	1254.4	1317.5	1358.4	1361.4	1339.7	1323.0
15°	915.3	923.7	955.7	1018.8	1111.9	1221.9	1327.4	1404.8	1430.9	1412.1	1391.9
17.5°	840.4	847.8	872.0	922.7	1019.8	1156.8	1323.9	1454.1	1513.7	1498.9	1474.8
20°	817.7	824.1	835.5	870.9	951.8	1089.3	1301.2	1500.4	1602.9	1594.5	1567.4
22.5°	841.8	847.8	851.3	867.0	917.8	1044.9	1272.6	1547.6	1706.4	1707.3	1674.3
25°	897.6	903.4	899.5	909.4	931.5	1031.1	1261.8	1603.4	1836.5	1847.4	1809.9
27.5°	989.2	989.7	980.4	979.9	983.3	1051.9	1273.2	1663.1	2000.7	2020.9	1974.6
30°	1173.1	1165.7	1129.8	1090.8	1073.1	1114.0	1304.7	1733.5	2194.3	2230.3	2172.2
32.5°	1456.5	1445.7	1379.6	1286.5	1192.8	1214.0	1361.4	1813.8	2405.4	2470.4	2399.4
35°	1764.0	1761.2	1692.1	1553.6	1390.0	1356.5	1453.6	1919.3	2635.5	2739.0	2654.7
37.5°	2049.9	2048.5	2009.0	1845.9	1646.8	1555.0	1601.5	2057.4	2882.0	3031.7	2932.2
40°	2311.2	2315.6	2276.2	2130.3	1929.7	1809.9	1802.5	2227.8	3156.0	3350.7	3232.4
42.5°	2536.9	2541.9	2501.9	2394.0	2209.2	2091.8	2049.5	2436.8	3423.6	3693.3	3553.3
45°	2690.2	2720.8	2714.8	2628.6	2496.0	2374.3	2346.1	2699.0	3728.7	4056.5	3892.3
47.5°	2733.6	2761.7	2806.0	2817.8	2737.1	2617.2	2650.8	3015.0	4037.3	4420.3	4233.5
50°	2626.7	2652.7	2745.0	2867.6	2923.8	2886.9	2947.0	3353.6	4353.3	4783.1	4568.1
52.5°	2415.6	2442.3	2558.6	2752.8	2982.0	3098.4	3244.2	3687.3	4659.3	5126.5	4885.0
55°	2110.6	2138.7	2288.0	2507.9	2871.1	3185.6	3492.2	4020.6	4939.8	5435.6	5170.9
57.5°	1695.6	1716.3	1871.5	2179.0	2592.1	3098.8	3675.0	4384.2	5203.9	5739.3	5454.3
60°	1105.1	1123.3	1303.7	1646.8	2129.7	2809.0	3711.5	4789.9	5554.9	6134.0	5836.3
62.5°	734.9	747.2	854.1	1106.1	1499.9	2252.5	3498.0	5113.7	6069.4	6821.2	6491.4
65°	504.2	516.6	623.5	799.0	969.0	1490.0	2884.5	5070.9	6535.8	7366.8	6976.9
67.5°	359.8	370.1	460.8	626.5	701.4	865.5	1955.3	4522.8	6468.8	7387.5	7003.0
70°	257.8	263.7	338.7	488.0	557.5	520.0	1087.3	3459.2	5663.8	6821.7	6469.7
72.5°	180.4	182.3	235.1	371.7	449.1	379.6	517.5	2306.2	4283.8	5354.3	5015.6
75°	122.3	124.7	158.3	272.5	360.3	289.9	274.1	1236.7	2514.7	2963.8	2656.7
77.5°	74.9	76.0	102.0	186.3	269.6	220.8	176.5	524.0	972.9	955.2	814.3
80°	42.4	42.4	65.1	115.8	183.9	142.5	123.7	222.8	308.0	270.6	238.5
82.5°	23.7	24.2	47.4	72.0	121.8	84.3	68.1	103.0	133.0	117.8	102.5
85°	9.8	10.9	29.1	34.0	58.1	41.9	27.6	43.4	49.3	43.9	32.1
87.5°	1.0	1.4	8.9	6.5	6.9	8.4	3.9	8.4	6.9	6.9	4.9
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°	1134.2	1134.2	1134.2	1134.2	1134.2	1134.2	1134.2	1134.2	1134.2	1134.2	1134.2
2.5°	1141.5	1134.2	1115.4	1093.8	1065.2	1051.3	1032.6	1019.8	1008.9	1009.9	1000.1
5°	1163.7	1145.0	1103.1	1050.8	985.7	939.4	890.2	856.2	828.5	822.7	809.3
7.5°	1194.3	1164.7	1091.2	997.1	887.2	803.9	729.5	681.6	647.7	636.8	626.0
10°	1233.7	1190.8	1075.9	929.6	771.4	665.4	585.6	548.1	524.9	517.0	511.2
12.5°	1279.5	1220.9	1055.8	847.3	652.1	550.1	499.3	480.5	473.1	470.7	469.2
15°	1337.2	1258.4	1025.2	749.7	551.0	479.6	457.9	455.4	456.4	455.4	454.9
17.5°	1405.7	1299.3	975.4	649.1	483.1	443.6	435.7	437.7	440.1	439.6	438.7
20°	1480.6	1339.7	911.8	560.0	436.8	418.0	413.6	415.5	417.5	416.5	416.0
22.5°	1565.9	1383.0	841.3	490.5	405.7	394.3	389.4	389.9	389.9	387.9	386.9
25°	1668.0	1430.9	767.4	441.2	382.0	373.1	367.2	365.2	362.2	356.4	355.4
27.5°	1789.6	1481.6	696.5	406.6	363.3	354.9	348.0	343.1	335.7	325.8	324.8
30°	1926.7	1543.2	636.3	385.0	348.5	340.1	332.2	324.8	314.0	301.7	300.6
32.5°	2087.9	1609.2	592.4	370.6	335.2	326.3	316.9	308.0	296.2	283.9	284.4
35°	2280.1	1689.1	566.8	360.8	324.8	313.0	302.7	292.7	283.9	273.1	272.0
37.5°	2488.6	1774.0	558.9	355.9	318.0	299.7	287.8	281.0	279.9	273.6	273.1
40°	2716.9	1874.5	564.9	352.9	310.5	286.9	274.1	272.5	275.0	263.7	264.1
42.5°	2958.4	1993.7	574.7	349.4	300.2	274.1	261.7	261.7	259.7	244.0	244.0
45°	3219.5	2131.3	584.6	341.1	287.8	261.3	251.8	248.5	240.1	224.8	224.3
47.5°	3482.7	2271.3	591.9	325.8	273.1	250.4	242.0	234.1	221.8	208.0	207.5
50°	3732.6	2397.0	584.0	303.1	256.4	240.1	231.1	220.3	207.0	197.6	196.2
52.5°	3956.0	2505.8	550.5	276.5	238.5	229.2	221.3	210.0	199.2	189.3	188.3
55°	4150.1	2594.1	491.4	251.3	222.8	219.9	212.0	197.6	182.9	174.5	173.5
57.5°	4336.5	2661.1	417.5	230.6	208.5	209.5	197.6	184.8	171.1	162.2	161.1
60°	4584.4	2750.8	342.6	211.5	193.2	196.2	183.4	173.9	156.7	145.4	143.9
62.5°	4980.7	2890.3	272.0	187.8	175.5	176.5	171.1	159.7	139.0	125.7	124.7
65°	5295.2	2839.0	214.4	162.2	155.3	156.7	156.7	144.4	122.3	106.9	105.5
67.5°	5259.7	2431.0	171.1	137.0	136.0	137.0	140.4	130.1	108.4	96.1	94.1
70°	4845.2	1933.7	137.0	113.9	118.3	115.8	125.7	118.8	97.6	85.3	83.7
72.5°	3953.5	1392.9	104.4	94.1	90.7	94.6	113.4	106.9	81.3	67.5	66.0
75°	2310.1	743.3	77.9	74.4	65.6	78.8	100.6	91.2	62.1	49.8	48.3
77.5°	752.1	259.2	57.2	54.7	48.8	63.6	85.8	76.9	50.7	39.5	37.9
80°	201.6	78.4	38.9	36.0	31.6	47.4	68.1	61.1	36.5	25.6	25.1
82.5°	80.9	33.0	22.7	20.2	17.2	32.5	53.7	49.3	27.1	16.3	16.3
85°	26.1	10.9	8.4	6.5	7.9	20.2	32.1	33.5	19.3	8.4	6.5
87.5°	3.5	1.4	1.4	1.9	1.4	3.5	9.8	9.3	5.4	1.0	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)