

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: P961006

Luminaire Tested: **NAV-SB1D-827-U-T2U**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961006
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-16)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-827-U-T2U
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9194.3 lumens
Efficiency: N/A
Efficacy: 115.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

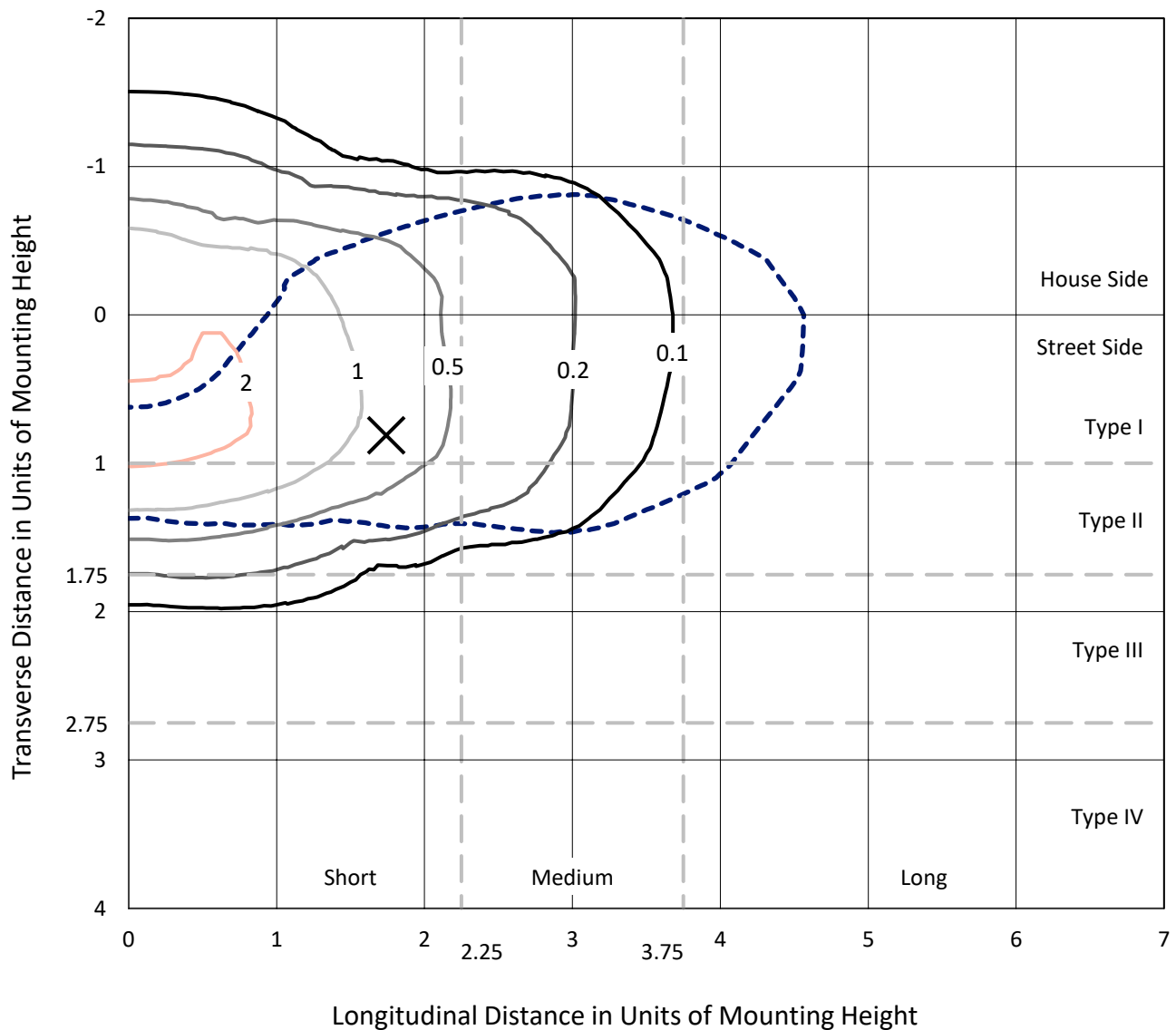
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

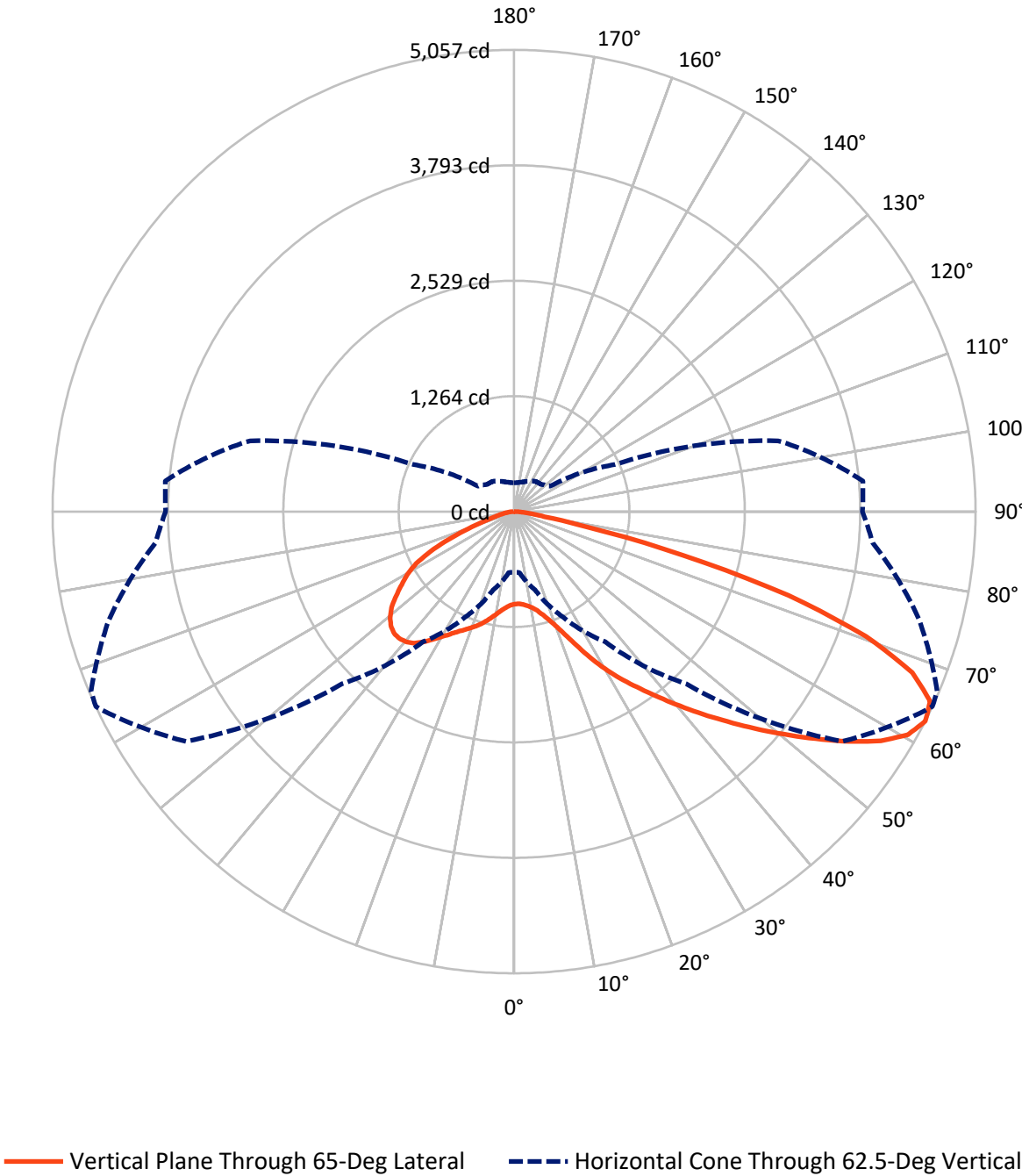
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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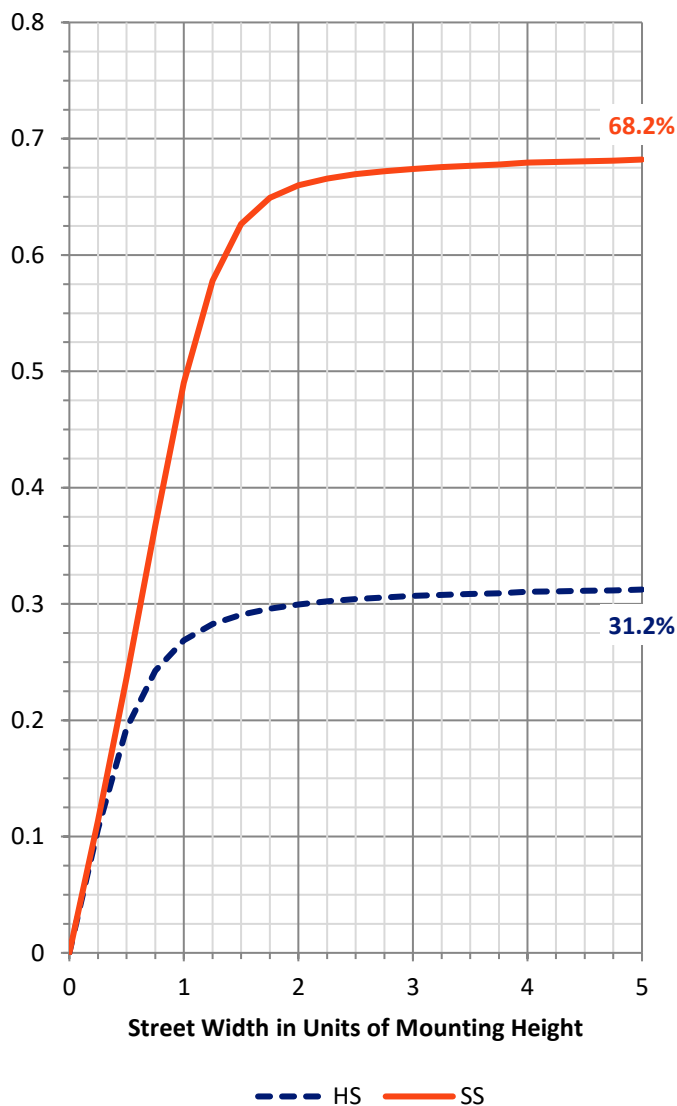
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2901.3	0.0	2901.3
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	6293.0	0.0	6293.0
	% Fixture	68.4	0.0	68.4
Total	Lumens	9194.3	0.0	9194.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.0	1.1
10°-20°	342.5	3.7
20°-30°	694.5	7.6
30°-40°	1201.9	13.1
40°-50°	1818.8	19.8
50°-60°	2132.5	23.2
60°-70°	1787.8	19.4
70°-80°	987.0	10.7
80°-90°	128.2	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°	9194.3	100.0
0°-180°	9194.3	100.0

Coefficient of Utilization



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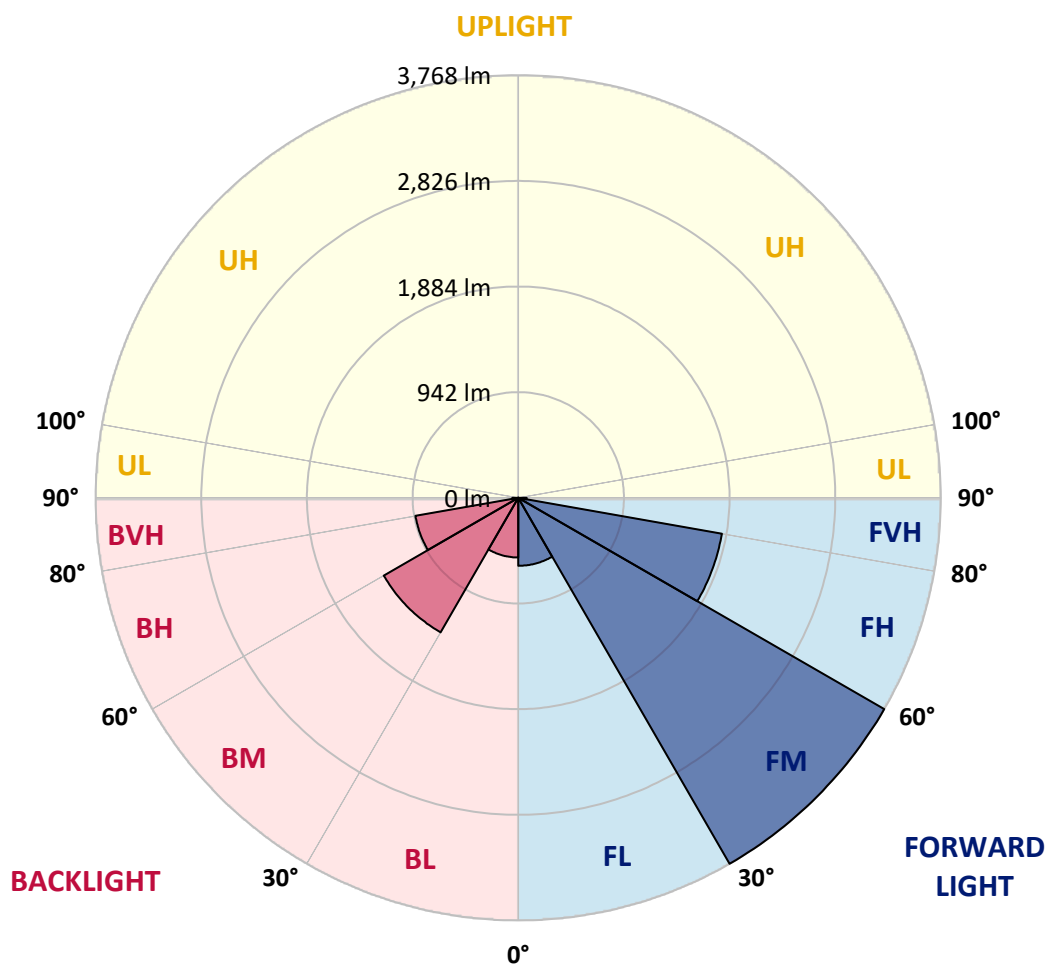
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	606.0	6.6			
FM	(30°-60°)	3768.1	41.0			
FH	(60°-80°)	1844.1	20.1			G2/5000
FVH	(80°-90°)	74.7	0.8			G1/100
BL	(0°-30°)	532.1	5.8	B2/1000		
BM	(30°-60°)	1385.0	15.1	B2/2500		
BH	(60°-80°)	930.7	10.1	B2/1000		G2/1000
BVH	(80°-90°)	53.5	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	1013.2	1013.2	1013.2	1013.2	1013.2	1013.2	1013.2	1013.2	1013.2	1013.2	1013.2
2.5°	1006.4	1003.6	1006.0	1006.0	1007.0	1006.4	1009.8	1010.8	1012.2	1015.1	1015.1
5°	996.5	996.0	1000.3	1004.1	1007.9	1011.3	1015.6	1021.7	1022.7	1026.0	1030.3
7.5°	993.1	990.3	996.9	1001.7	1010.8	1018.8	1030.3	1040.8	1045.1	1046.5	1054.6
10°	1018.8	1014.1	1020.3	1023.2	1030.8	1038.9	1052.3	1069.0	1073.8	1079.4	1088.6
12.5°	1062.8	1057.5	1066.6	1070.9	1078.0	1085.2	1094.3	1110.5	1112.8	1123.4	1131.9
15°	1122.9	1116.6	1122.4	1127.6	1139.6	1146.3	1155.3	1171.1	1171.1	1179.2	1185.4
17.5°	1204.5	1196.4	1200.6	1202.5	1210.2	1220.2	1235.4	1249.3	1256.4	1253.6	1245.0
20°	1326.0	1316.1	1316.1	1306.6	1303.7	1311.8	1331.8	1350.8	1358.5	1343.8	1322.8
22.5°	1508.8	1494.4	1486.4	1454.0	1441.0	1442.0	1462.1	1485.4	1491.6	1465.3	1418.2
25°	1741.1	1718.6	1707.6	1660.0	1630.9	1605.7	1621.3	1651.4	1660.0	1627.6	1551.2
27.5°	1973.4	1974.8	1964.3	1907.1	1858.9	1812.6	1804.5	1836.0	1845.1	1808.3	1713.9
30°	2299.2	2265.4	2245.3	2176.6	2107.9	2043.0	2009.6	2022.5	2024.9	1981.0	1871.3
32.5°	2580.1	2571.5	2528.6	2468.5	2380.3	2278.7	2222.8	2202.3	2198.5	2136.0	2005.8
35°	2900.2	2895.4	2850.1	2778.6	2683.1	2542.0	2441.3	2382.6	2377.9	2290.2	2138.9
37.5°	3225.6	3225.6	3181.2	3103.0	3004.2	2827.7	2674.6	2581.6	2566.3	2451.8	2274.4
40°	3485.0	3469.3	3477.4	3444.5	3331.5	3144.0	2933.7	2798.7	2778.1	2640.7	2418.4
42.5°	3632.4	3627.2	3675.9	3712.6	3666.3	3516.5	3218.8	3033.8	3005.2	2848.7	2584.4
45°	3665.3	3659.7	3746.5	3881.0	3945.8	3884.2	3528.9	3281.3	3246.5	3066.2	2762.4
47.5°	3589.4	3578.1	3705.4	3917.7	4125.6	4234.0	3864.8	3549.9	3499.4	3278.1	2945.0
50°	3361.5	3350.5	3543.2	3825.1	4186.2	4471.5	4229.2	3834.6	3757.4	3505.1	3129.6
52.5°	2865.9	2871.1	3173.1	3560.4	4106.6	4619.4	4543.0	4134.7	4041.7	3737.4	3302.9
55°	2232.4	2243.8	2615.0	3041.4	3787.9	4596.9	4757.2	4443.8	4351.2	3955.8	3481.7
57.5°	1598.5	1649.0	1996.8	2418.9	3176.0	4241.6	4804.0	4737.7	4648.0	4194.3	3656.8
60°	1036.1	1045.1	1402.9	1828.4	2418.4	3610.0	4709.1	4960.4	4890.3	4437.6	3803.2
62.5°	664.0	670.2	888.2	1278.9	1740.7	2670.7	4389.5	5057.2	5035.8	4598.4	3943.9
65°	488.0	483.2	596.8	845.2	1172.5	1647.1	3768.8	5010.5	5052.9	4699.0	4060.3
67.5°	407.3	400.7	456.5	585.3	863.9	935.4	2788.6	4706.6	4862.2	4687.5	4145.7
70°	371.2	365.4	399.2	434.6	674.0	626.3	1405.8	4091.8	4331.2	4557.4	4131.9
72.5°	314.4	304.3	350.7	385.9	524.2	480.3	581.0	3143.1	3435.0	4140.0	3937.2
75°	243.7	237.1	276.6	339.6	394.0	374.9	367.3	1908.5	2227.1	3201.7	3444.5
77.5°	193.2	184.1	220.4	264.8	354.4	282.9	267.6	821.8	1137.6	2044.0	2577.3
80°	145.4	137.4	167.4	209.4	272.3	213.2	173.1	335.4	428.9	1035.6	1296.0
82.5°	103.5	96.4	116.8	153.6	183.2	191.3	106.4	188.0	211.4	399.2	289.6
85°	66.3	62.0	78.2	96.4	116.4	123.1	64.9	98.3	107.8	164.6	120.6
87.5°	36.3	29.6	42.0	44.8	53.9	49.1	31.0	35.8	38.6	59.7	51.0
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°	1013.2	1013.2	1013.2	1013.2	1013.2	1013.2	1013.2	1013.2	1013.2	1013.2	1013.2
2.5°	1017.0	1018.4	1023.2	1024.6	1028.0	1032.3	1035.1	1038.0	1038.0	1040.8	1040.8
5°	1030.8	1034.1	1044.2	1049.4	1058.0	1066.6	1071.8	1078.0	1081.9	1083.7	1084.8
7.5°	1057.5	1062.8	1077.1	1086.2	1101.0	1112.8	1120.9	1129.6	1131.5	1136.7	1134.8
10°	1093.8	1100.0	1116.2	1133.3	1151.0	1165.8	1173.4	1179.7	1182.0	1183.0	1180.6
12.5°	1135.3	1144.3	1165.3	1186.3	1204.9	1217.8	1219.8	1218.3	1211.7	1205.9	1205.9
15°	1186.3	1194.4	1217.8	1240.7	1258.8	1261.2	1249.3	1241.7	1233.6	1232.2	1232.2
17.5°	1247.4	1251.6	1273.2	1295.6	1297.0	1288.8	1271.2	1264.0	1256.4	1251.2	1251.6
20°	1318.5	1317.0	1332.3	1341.8	1331.8	1307.0	1280.3	1268.3	1260.8	1254.5	1255.0
22.5°	1403.3	1392.4	1390.5	1388.1	1361.4	1309.4	1273.2	1257.9	1246.0	1237.4	1240.2
25°	1526.9	1484.9	1455.8	1439.6	1379.5	1296.5	1250.2	1216.4	1193.9	1179.2	1184.9
27.5°	1681.4	1610.9	1537.4	1497.8	1379.5	1270.3	1194.9	1140.0	1103.3	1088.0	1095.7
30°	1828.8	1754.9	1646.7	1567.9	1376.2	1227.3	1105.7	1029.4	986.5	971.2	980.2
32.5°	1954.8	1874.2	1762.6	1644.7	1368.1	1157.7	995.1	910.6	869.1	851.0	860.1
35°	2071.6	1985.8	1878.9	1729.2	1346.6	1055.6	873.4	809.0	762.7	733.6	743.2
37.5°	2191.3	2089.3	1989.1	1805.4	1308.0	936.3	779.9	725.1	670.7	631.6	642.1
40°	2321.6	2199.4	2107.0	1850.8	1244.6	822.9	707.5	657.3	599.6	558.1	566.2
42.5°	2473.7	2331.6	2238.1	1874.2	1157.7	742.2	660.2	611.0	556.7	522.9	529.5
45°	2632.6	2477.1	2357.8	1873.7	1060.9	704.6	644.9	596.2	536.2	500.8	506.6
47.5°	2799.1	2629.2	2461.3	1843.2	976.9	709.8	636.3	564.3	498.0	463.6	468.4
50°	2966.0	2795.8	2561.6	1786.0	941.2	698.3	604.3	519.5	441.3	410.2	412.2
52.5°	3131.6	2972.7	2647.9	1704.4	904.9	655.9	563.3	461.2	417.9	396.4	396.4
55°	3298.0	3147.8	2741.9	1585.6	814.3	606.3	494.7	439.3	399.2	379.7	377.8
57.5°	3465.0	3350.0	2831.0	1466.8	700.3	545.2	456.9	412.6	380.7	364.0	361.1
60°	3638.6	3581.4	2923.1	1357.6	587.6	467.0	429.3	391.1	358.7	340.1	338.7
62.5°	3817.5	3836.1	2995.2	1216.9	484.2	419.3	404.5	365.4	333.9	316.2	315.8
65°	3997.8	4081.8	3042.4	1021.7	392.6	374.0	377.8	337.2	305.2	290.0	289.6
67.5°	4133.7	4258.8	3029.0	773.3	322.0	331.1	344.4	307.7	277.6	265.7	266.2
70°	4149.0	4237.8	2897.4	529.5	269.5	289.0	307.2	278.6	247.5	239.0	239.4
72.5°	3945.8	3951.6	2530.5	345.8	228.0	253.8	268.0	249.0	218.9	210.3	209.9
75°	3413.0	3268.0	1857.9	228.0	190.8	218.0	231.3	218.0	188.9	190.8	184.1
77.5°	2585.9	2314.4	1128.1	162.2	159.3	183.2	201.3	191.8	167.0	187.5	165.0
80°	1332.3	1252.1	503.3	121.2	126.0	146.5	165.5	153.1	132.1	126.0	115.0
82.5°	305.2	354.9	198.4	86.8	91.1	105.4	126.4	115.0	94.9	80.2	79.2
85°	106.8	116.8	87.7	54.4	53.4	65.8	85.9	76.8	64.4	51.6	54.4
87.5°	33.8	44.4	32.9	21.9	22.9	29.6	39.6	36.3	30.0	19.6	20.5
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)