

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: P966262

Luminaire Tested: **NAV-SB4B-827-U-SL2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966262
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-10)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-827-U-SL2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19993.6 lumens
Efficiency: N/A
Efficacy: 136.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

Input Watts (W): 147
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

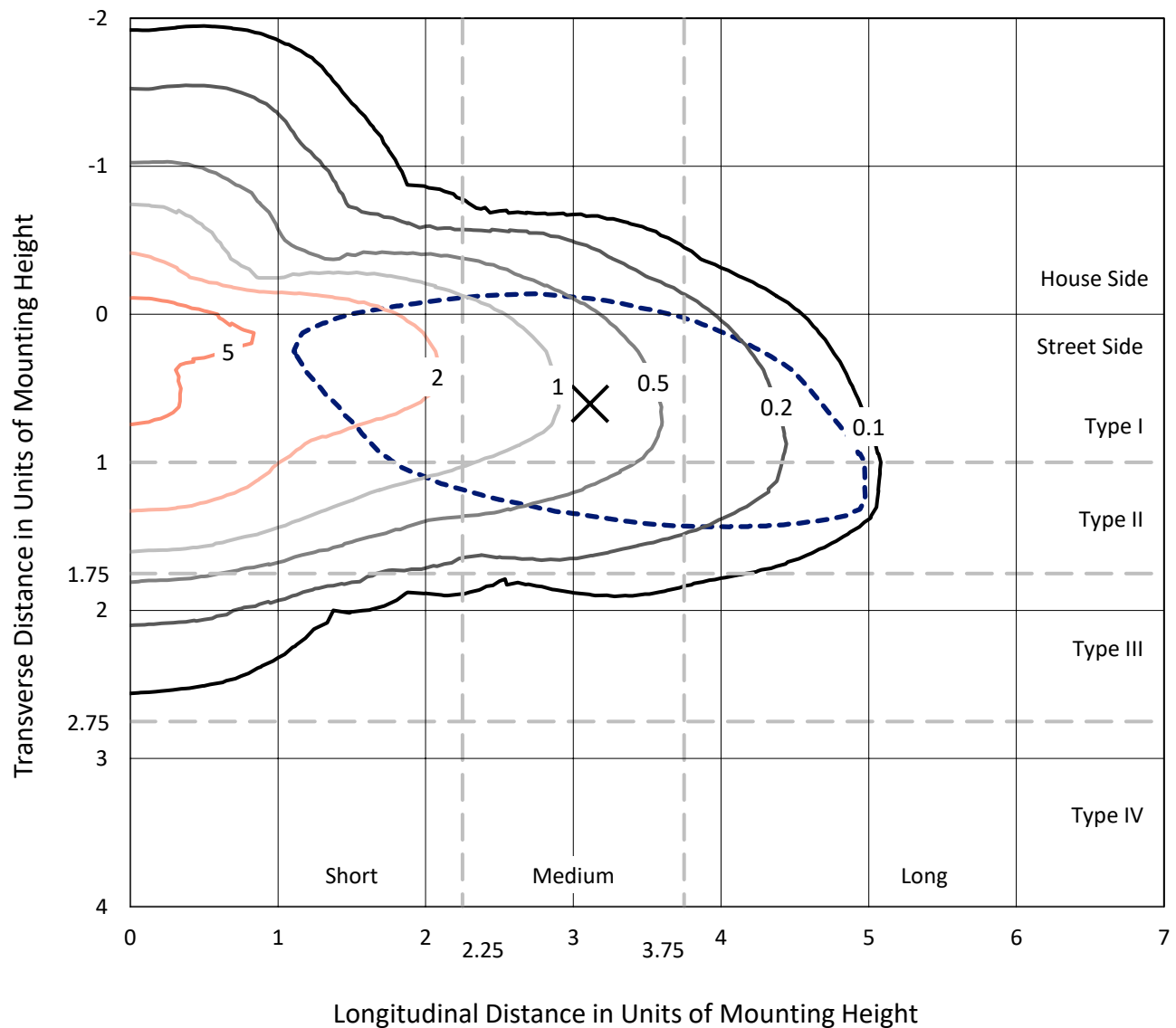


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Iso-Footcandle Lines of Horizontal Illumination

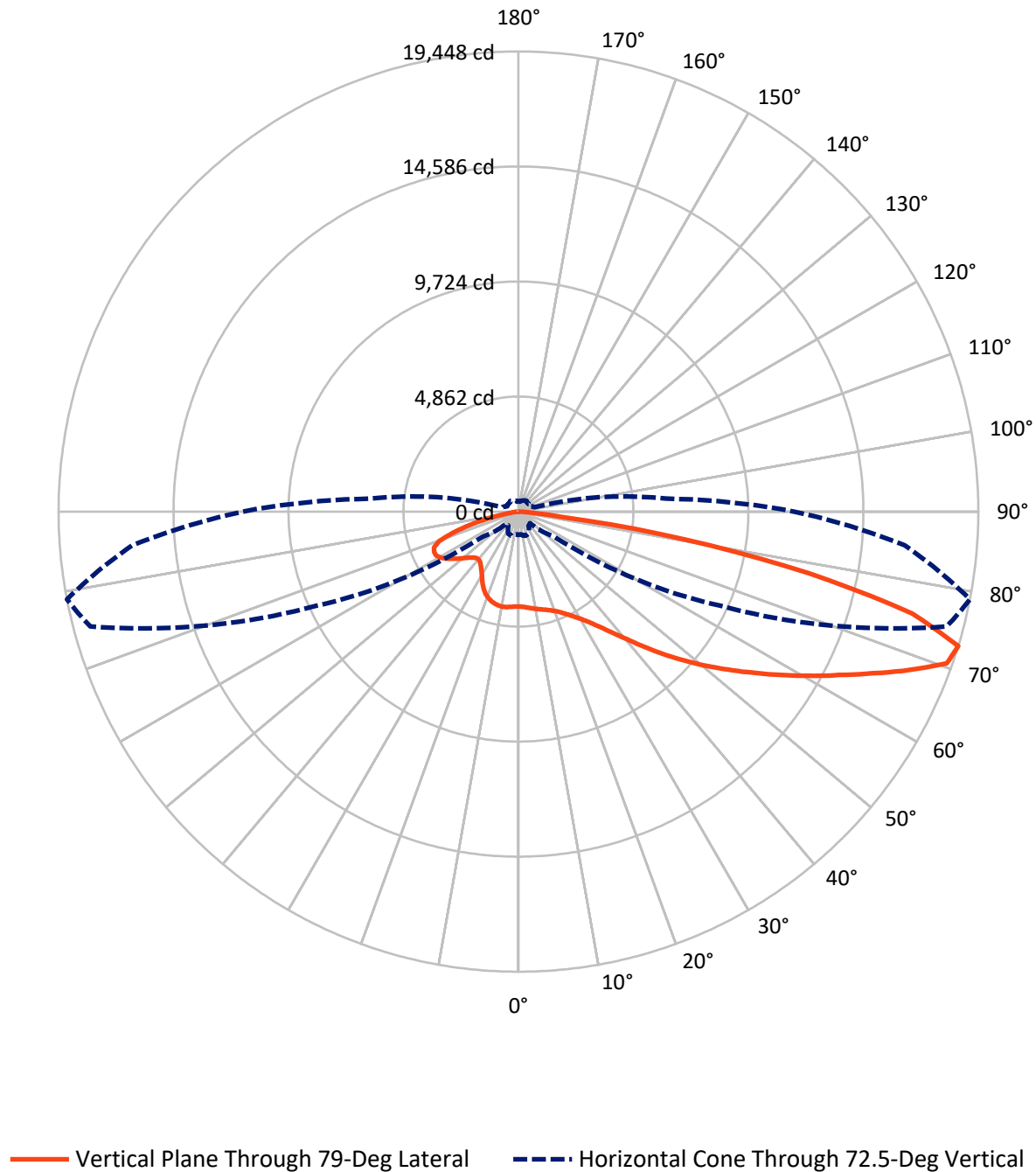
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.4 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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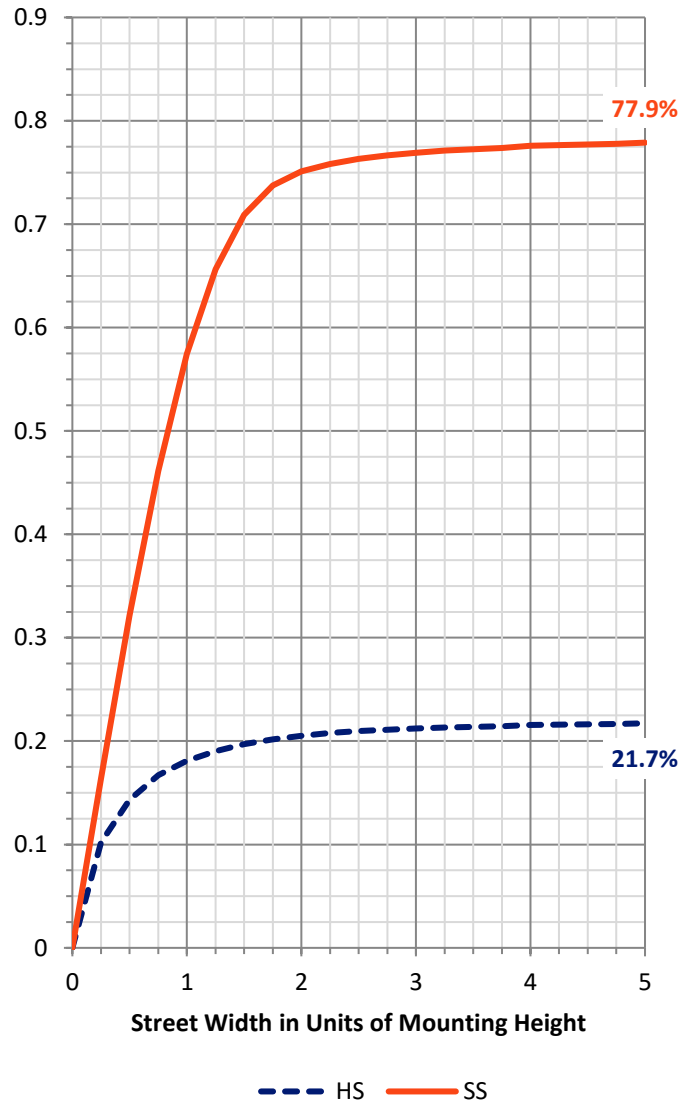
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4399.7	0.0	4399.7
	% Fixture	22.0	0.0	22.0
Street Side	Lumens	15593.9	0.0	15593.9
	% Fixture	78.0	0.0	78.0
Total	Lumens	19993.6	0.0	19993.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	364.3	1.8
10°-20°	952.5	4.8
20°-30°	1536.9	7.7
30°-40°	2306.7	11.5
40°-50°	3272.2	16.4
50°-60°	4132.4	20.7
60°-70°	4197.0	21.0
70°-80°	2860.4	14.3
80°-90°	371.1	1.9
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°	19993.6	100.0
0°-180°	19993.6	100.0

Coefficient of Utilization



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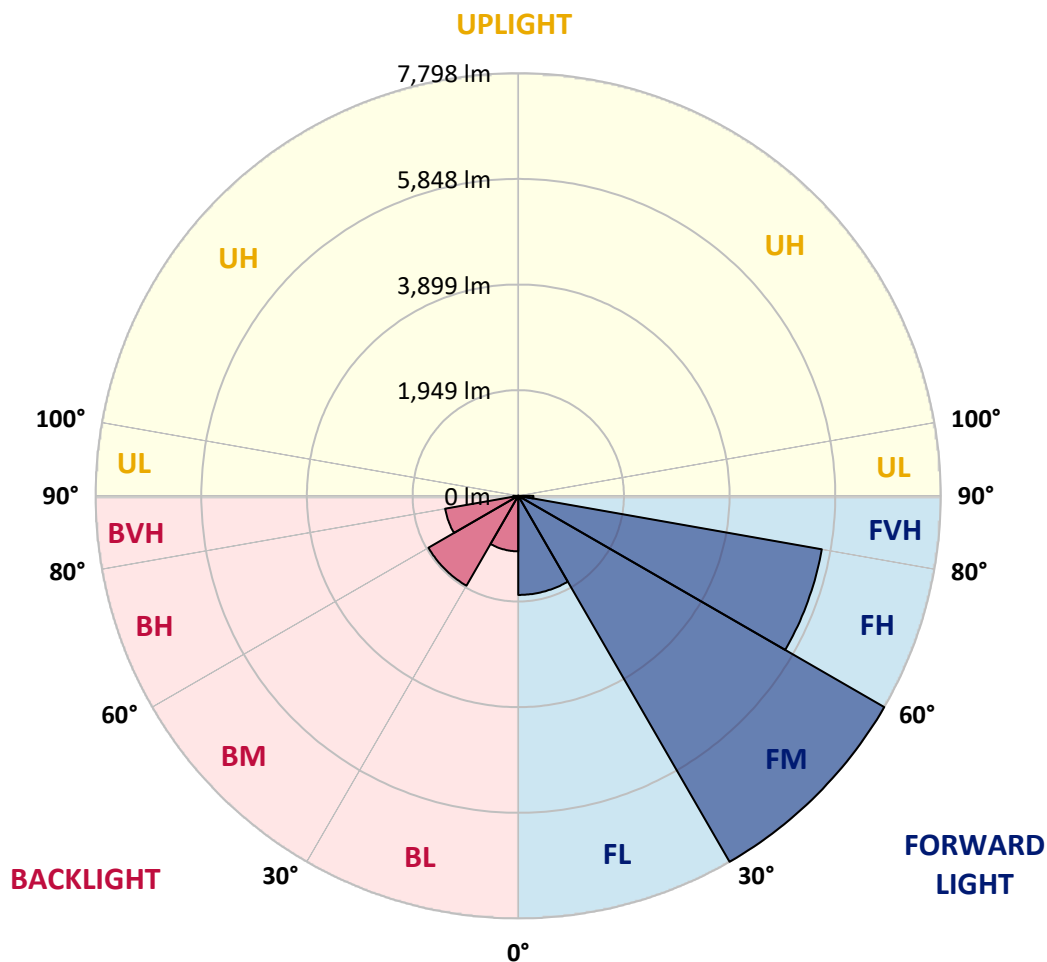
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1828.9	9.1			
FM	(30°-60°)	7797.9	39.0			
FH	(60°-80°)	5687.5	28.4			G3/7500
FVH	(80°-90°)	279.6	1.4			G3/500
BL	(0°-30°)	1024.8	5.1	B3/2500		
BM	(30°-60°)	1913.4	9.6	B2/2500		
BH	(60°-80°)	1369.9	6.9	B3/2500		G3/2500
BVH	(80°-90°)	91.5	0.5			G1/100
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°	79°	85°
0°	4013.5	4013.5	4013.5	4013.5	4013.5	4013.5	4013.5	4013.5	4013.5	4013.5	4013.5
2.5°	4015.6	3996.6	4008.3	4004.1	4009.3	4015.6	4017.8	4021.0	4031.5	4030.5	4029.4
5°	4007.2	3988.2	4004.1	3998.7	4012.5	4027.3	4039.9	4051.6	4068.5	4075.9	4065.4
7.5°	3989.2	3976.5	3992.4	4008.3	4033.6	4055.8	4073.9	4100.3	4124.6	4128.8	4136.2
10°	3884.5	3875.0	3912.0	3953.2	4023.0	4083.3	4122.4	4153.1	4179.5	4183.8	4194.4
12.5°	3775.6	3763.9	3805.2	3861.3	3974.4	4083.3	4165.8	4206.0	4229.3	4243.0	4258.9
15°	3757.6	3748.1	3771.4	3820.0	3914.2	4054.8	4195.4	4269.4	4289.5	4305.4	4311.8
17.5°	3844.4	3826.3	3835.9	3852.8	3907.8	4028.4	4218.7	4341.4	4372.0	4388.9	4388.9
20°	4045.3	4019.8	4005.1	3971.3	3961.7	4032.6	4216.5	4428.1	4468.3	4489.4	4494.7
22.5°	4312.8	4295.9	4264.2	4178.5	4085.4	4084.4	4256.8	4539.1	4614.2	4634.3	4621.6
25°	4636.5	4611.1	4570.9	4454.5	4275.8	4187.0	4324.5	4680.9	4806.7	4812.0	4775.0
27.5°	5008.8	4970.6	4915.7	4762.4	4521.2	4347.7	4428.1	4843.7	5027.7	5025.7	4949.5
30°	5401.1	5363.0	5304.9	5118.7	4815.1	4564.5	4571.9	5019.3	5290.0	5278.4	5148.4
32.5°	5687.7	5659.1	5647.5	5503.6	5153.6	4820.5	4736.9	5213.9	5613.6	5603.1	5421.2
35°	5907.7	5870.7	5884.4	5811.4	5522.7	5107.1	4939.0	5445.5	6007.1	6006.0	5779.7
37.5°	6125.5	6092.7	6104.4	6055.7	5864.3	5470.9	5185.4	5728.9	6494.6	6517.9	6213.3
40°	6324.4	6289.5	6336.0	6290.5	6129.8	5858.0	5465.6	6049.3	7059.4	7103.8	6737.8
42.5°	6443.9	6416.4	6493.6	6494.6	6360.3	6184.7	5773.3	6402.7	7712.9	7812.3	7383.0
45°	6485.1	6475.6	6591.9	6616.3	6564.4	6374.1	6050.5	6787.6	8417.3	8595.0	8118.0
47.5°	6440.7	6422.8	6583.5	6673.4	6714.6	6462.9	6280.0	7204.3	9136.4	9396.7	8919.7
50°	6216.5	6181.6	6420.6	6609.9	6756.9	6521.0	6511.5	7685.4	9954.0	10238.5	9725.5
52.5°	5813.6	5787.2	6058.9	6387.8	6663.8	6549.6	6771.8	8211.1	10730.2	11098.3	10551.6
55°	5298.5	5263.6	5562.9	5992.3	6432.2	6540.1	7031.9	8799.1	11646.2	12019.5	11405.0
57.5°	4482.0	4412.2	4790.8	5298.5	6054.7	6528.4	7302.6	9384.0	12576.7	13024.2	12315.6
60°	3291.2	3187.5	3651.9	4253.6	5316.5	6415.3	7637.9	10039.7	13693.6	14096.5	13309.7
62.5°	1916.3	1856.1	2159.6	2721.2	4007.2	5749.0	7826.1	10802.2	14791.4	15214.4	14287.0
65°	1488.0	1471.1	1497.5	1540.9	2230.4	4304.4	7245.5	11545.7	16187.4	16483.5	15305.4
67.5°	1361.1	1348.4	1360.1	1278.6	1131.6	2397.6	5732.1	11733.9	17682.8	17862.6	16196.9
70°	1209.9	1195.0	1233.2	1163.4	890.5	1090.4	3703.6	11050.7	18872.6	19209.9	16874.8
72.5°	985.6	968.7	1057.6	1025.8	749.8	700.1	1860.3	9427.3	18747.8	19447.9	16389.4
75°	757.3	747.7	853.5	879.9	611.3	551.0	892.6	7007.5	16498.3	17203.7	14125.1
77.5°	588.0	580.7	634.6	730.8	492.8	427.2	548.9	4445.0	12432.9	12556.7	9734.0
80°	441.1	419.8	469.6	565.8	383.9	312.0	372.3	2592.1	7858.9	7123.9	4236.7
82.5°	276.0	265.5	306.7	377.5	270.7	214.7	242.2	1431.9	3149.5	1855.0	817.5
85°	157.5	153.3	167.1	215.8	147.0	123.7	138.6	632.4	575.3	395.5	246.4
87.5°	63.4	61.3	76.2	96.2	53.9	45.5	48.7	152.3	126.9	117.4	81.4
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°	4013.5	4013.5	4013.5	4013.5	4013.5	4013.5	4013.5	4013.5	4013.5	4013.5	4013.5
2.5°	4025.2	4025.2	4010.3	3987.0	3960.7	3943.7	3916.2	3908.8	3880.2	3871.8	3885.6
5°	4073.9	4065.4	4019.8	3954.3	3864.5	3781.9	3690.9	3633.8	3553.5	3525.0	3546.1
7.5°	4135.2	4111.9	4033.6	3889.8	3701.6	3516.5	3324.0	3178.0	3038.4	2988.7	2995.0
10°	4191.2	4158.4	4025.2	3773.4	3447.7	3127.3	2820.6	2605.9	2443.0	2376.4	2391.2
12.5°	4247.3	4187.0	3969.1	3579.9	3087.1	2652.4	2325.6	2158.5	2058.1	1977.6	2004.1
15°	4300.2	4215.5	3882.4	3320.8	2691.5	2250.5	2009.4	1876.2	1795.8	1742.9	1752.4
17.5°	4361.5	4239.8	3752.3	2991.9	2315.1	1972.4	1775.7	1695.4	1679.5	1673.1	1677.3
20°	4447.2	4262.1	3580.9	2623.9	2038.0	1750.3	1648.8	1641.3	1640.3	1637.1	1647.7
22.5°	4539.1	4288.5	3354.6	2289.6	1802.2	1611.7	1593.8	1579.0	1569.5	1568.4	1580.0
25°	4648.1	4297.0	3071.2	2015.8	1601.2	1546.2	1525.0	1502.9	1496.5	1496.5	1502.9
27.5°	4753.8	4268.4	2741.3	1777.8	1488.0	1485.9	1458.4	1451.0	1450.0	1453.1	1461.5
30°	4859.6	4214.5	2413.4	1557.8	1422.5	1422.5	1413.0	1418.2	1422.5	1433.1	1440.4
32.5°	5002.4	4157.4	2139.5	1394.9	1365.3	1354.7	1364.3	1374.8	1379.1	1392.9	1404.5
35°	5211.8	4117.2	1921.7	1306.2	1306.2	1292.3	1297.6	1295.5	1286.1	1279.7	1294.5
37.5°	5488.9	4115.1	1741.9	1264.8	1256.4	1254.3	1255.3	1241.6	1204.6	1160.2	1161.2
40°	5822.0	4172.2	1603.3	1236.4	1230.0	1242.7	1236.4	1199.4	1097.8	1020.6	1018.4
42.5°	6269.4	4335.0	1514.4	1201.4	1220.5	1236.4	1210.9	1083.0	1014.2	962.4	960.3
45°	6796.1	4599.5	1469.0	1164.4	1202.4	1221.5	1098.8	1042.7	987.8	925.4	921.2
47.5°	7392.5	4932.6	1458.4	1129.6	1162.2	1173.9	1051.2	1025.8	963.5	895.7	890.5
50°	8041.8	5327.0	1487.0	1088.2	1104.1	1063.9	1035.4	1012.1	947.6	881.0	873.6
52.5°	8713.4	5761.7	1544.1	1032.2	1045.9	1001.5	1029.0	1008.9	938.1	848.2	841.8
55°	9373.4	6199.6	1599.1	966.7	986.8	945.5	1011.1	996.2	894.7	793.1	787.9
57.5°	10043.9	6635.3	1653.0	908.5	929.6	891.5	982.5	962.4	846.0	742.4	740.4
60°	10740.9	7058.4	1678.4	852.4	867.3	841.8	939.1	904.3	791.1	690.6	687.5
62.5°	11393.4	7410.5	1637.1	796.3	805.9	795.3	882.0	835.5	736.1	632.4	631.4
65°	12048.1	7619.8	1510.2	741.4	743.4	738.2	801.7	761.5	671.6	581.7	575.3
67.5°	12641.3	7737.3	1308.2	682.1	676.8	674.8	726.5	681.1	609.2	530.9	524.6
70°	12767.2	7439.0	999.4	612.3	612.3	607.0	644.1	597.6	540.4	476.9	474.9
72.5°	11660.9	6257.7	709.6	533.0	541.5	530.9	561.6	522.4	470.6	428.3	415.6
75°	9402.9	4588.8	516.1	451.6	466.4	448.4	476.9	449.5	405.1	404.0	363.8
77.5°	6460.8	2837.5	374.4	372.3	382.8	359.6	392.4	377.5	337.3	319.4	299.3
80°	2757.1	1131.6	272.9	287.6	287.6	266.5	304.6	308.8	273.9	265.5	265.5
82.5°	548.9	321.5	191.5	197.7	186.1	179.8	215.8	239.0	329.9	367.0	368.1
85°	165.0	118.5	115.3	107.8	95.2	96.2	126.9	240.1	296.1	169.2	146.0
87.5°	45.5	29.6	30.6	24.3	20.1	26.4	43.4	181.9	99.4	42.3	36.0
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)