

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: P966295

Luminaire Tested: **NAV-SB4B-830-U-SL3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966295
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-12)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-830-U-SL3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20314.5 lumens
Efficiency: N/A
Efficacy: 138.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

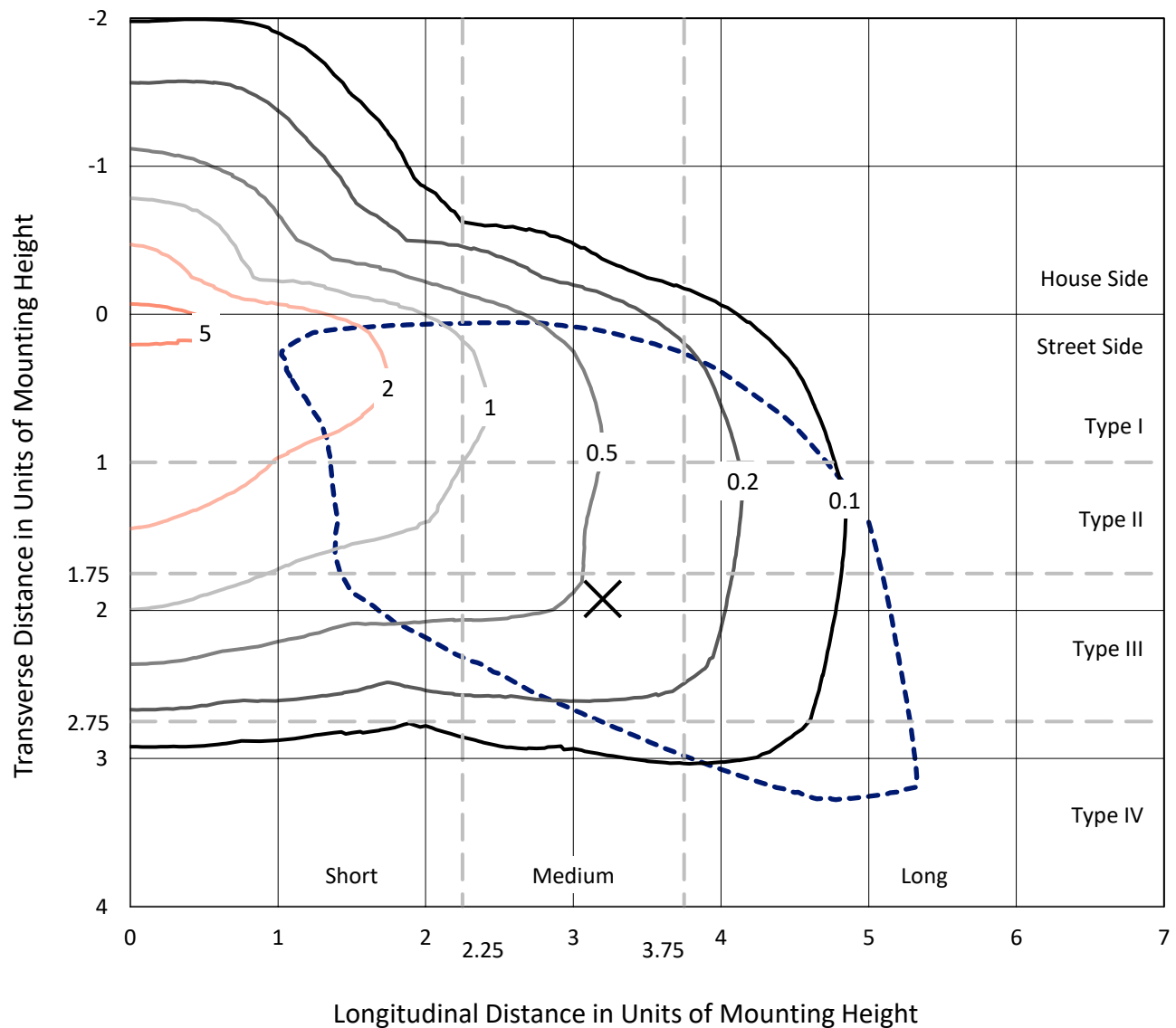
Input Watts (W): 147
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

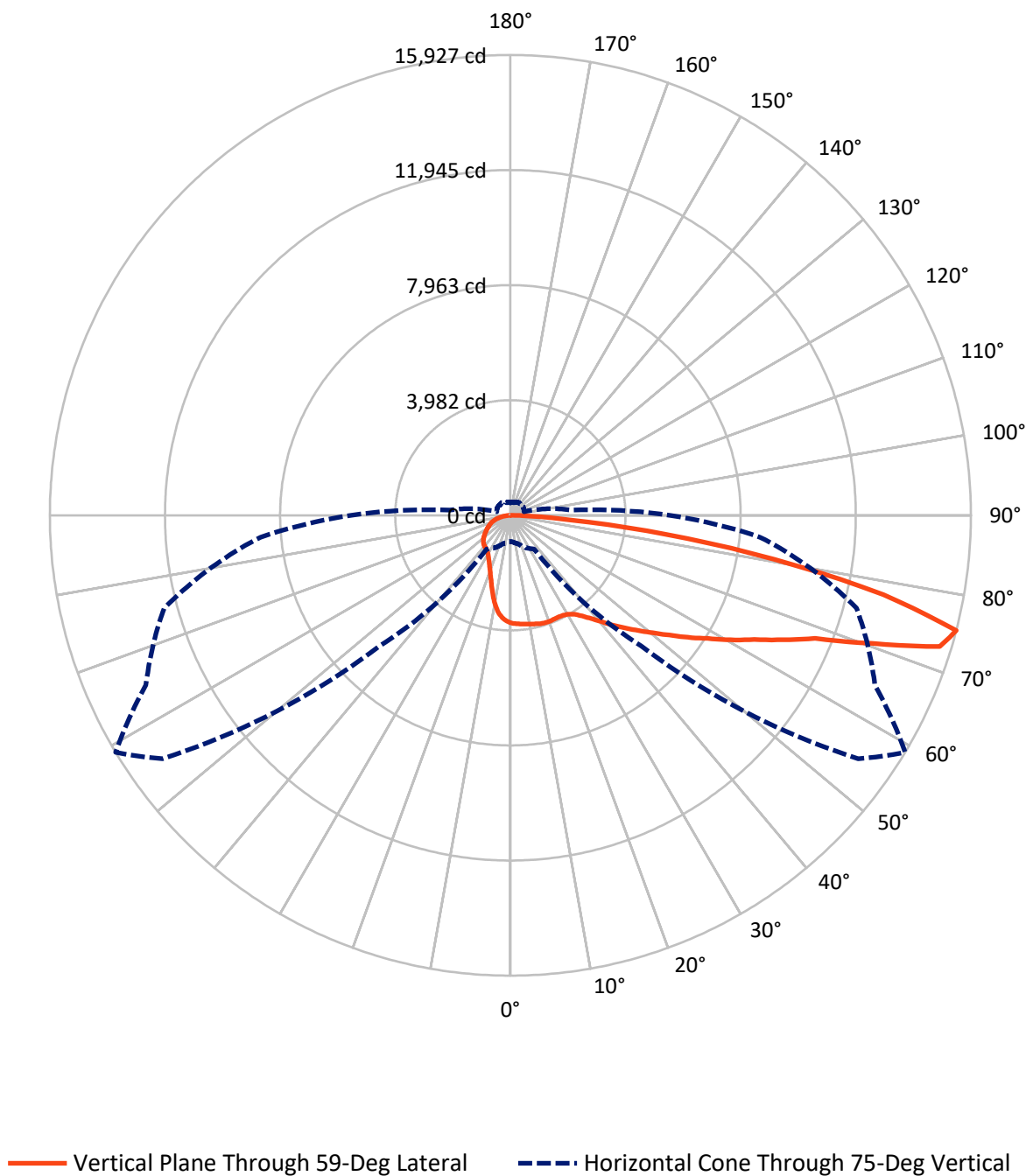
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 fc
Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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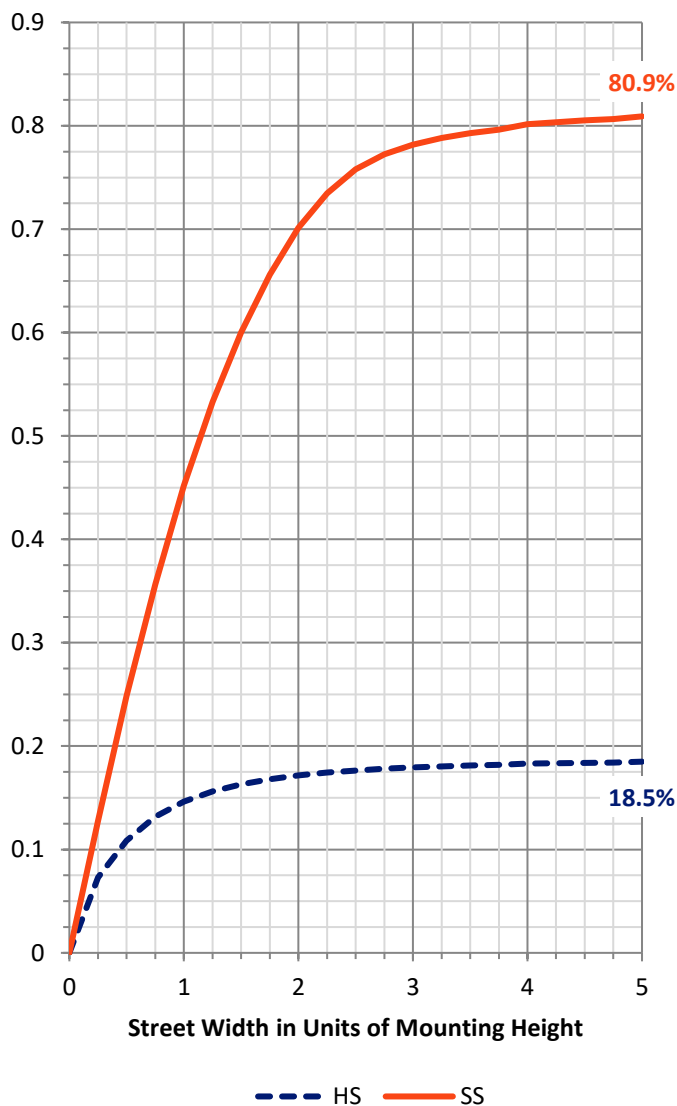
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3810.1	0.0	3810.1
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	16504.3	0.0	16504.3
	% Fixture	81.2	0.0	81.2
Total	Lumens	20314.5	0.0	20314.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	334.3	1.6
10°-20°	854.6	4.2
20°-30°	1298.0	6.4
30°-40°	1929.5	9.5
40°-50°	2869.5	14.1
50°-60°	3895.0	19.2
60°-70°	4755.2	23.4
70°-80°	3731.8	18.4
80°-90°	646.4	3.2
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°	20314.5	100.0
0°-180°	20314.5	100.0

Coefficient of Utilization



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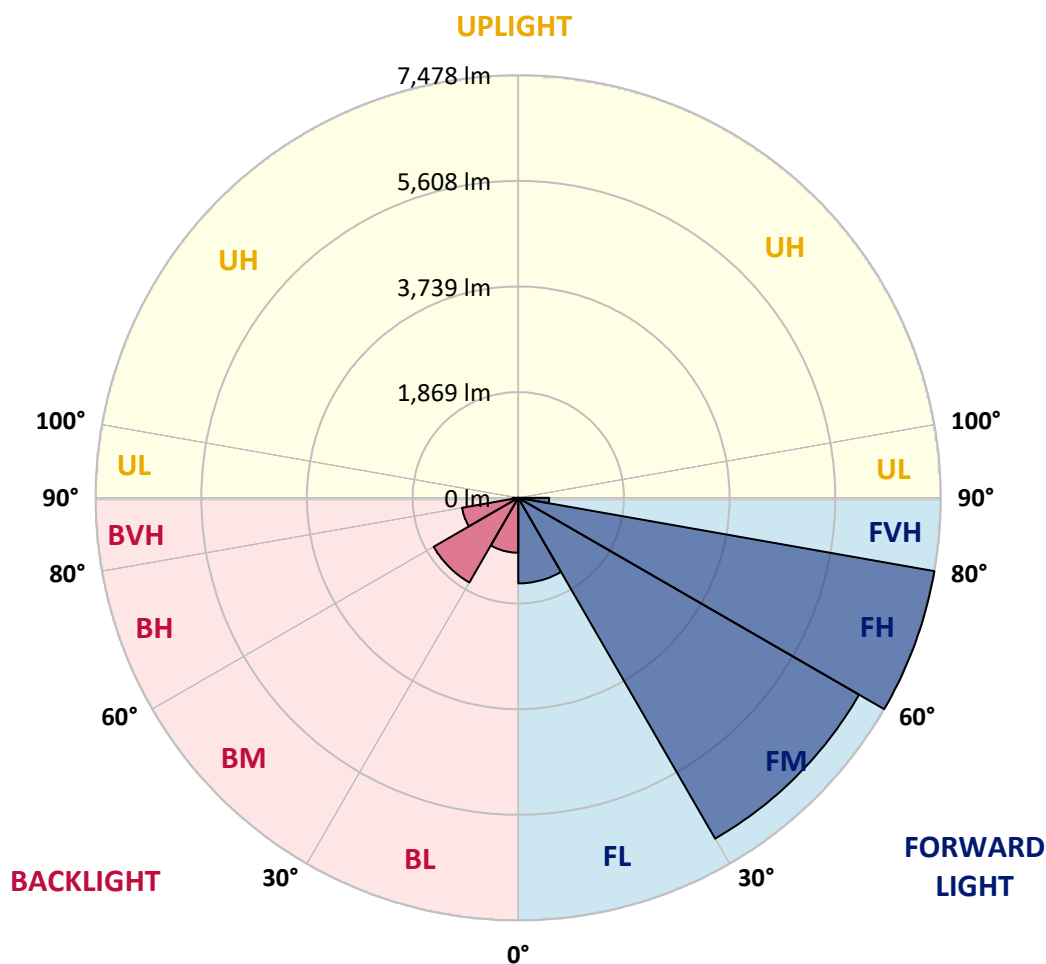
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1514.7	7.5			
FM	(30°-60°)	6964.6	34.3			
FH	(60°-80°)	7477.6	36.8			G3/7500
FVH	(80°-90°)	547.5	2.7			G4/750
BL	(0°-30°)	972.3	4.8	B2/1000		
BM	(30°-60°)	1729.4	8.5	B2/2500		
BH	(60°-80°)	1009.5	5.0	B3/2500		G3/2500
BVH	(80°-90°)	99.0	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-G4

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	3728.6	3728.6	3728.6	3728.6	3728.6	3728.6	3728.6	3728.6	3728.6	3728.6	3728.6
2.5°	3760.4	3747.3	3760.4	3754.9	3752.7	3748.3	3749.4	3757.1	3752.7	3758.2	3739.6
5°	3735.2	3727.6	3740.7	3737.5	3751.6	3753.9	3768.0	3776.7	3782.2	3783.3	3769.1
7.5°	3693.7	3686.1	3704.7	3719.9	3750.6	3759.3	3788.8	3803.0	3810.6	3823.8	3803.0
10°	3541.8	3538.5	3584.4	3642.3	3714.5	3759.3	3804.1	3828.2	3840.2	3875.1	3851.0
12.5°	3272.9	3277.3	3337.4	3448.9	3593.1	3737.5	3821.6	3856.6	3875.1	3918.8	3907.9
15°	3016.2	3015.0	3080.6	3199.7	3402.0	3641.2	3830.3	3890.4	3922.1	3986.5	3977.8
17.5°	2867.5	2863.1	2909.1	2999.8	3187.7	3493.7	3808.5	3908.9	3976.8	4057.6	4050.0
20°	2840.2	2831.5	2855.5	2900.3	3033.7	3332.0	3751.6	3908.9	4020.5	4125.3	4121.0
22.5°	2939.7	2925.5	2915.6	2910.2	2969.2	3198.6	3687.1	3895.9	4084.9	4222.6	4215.0
25°	3139.7	3117.8	3067.5	3018.3	3000.9	3138.5	3630.3	3892.6	4181.1	4353.8	4325.4
27.5°	3463.2	3435.8	3334.2	3216.1	3110.2	3169.2	3605.2	3912.2	4287.1	4492.6	4435.7
30°	3864.1	3834.7	3706.8	3525.4	3335.2	3282.8	3636.9	3970.2	4422.6	4677.3	4565.8
32.5°	4223.7	4190.9	4081.7	3896.9	3640.2	3479.5	3737.5	4080.5	4635.7	4934.0	4761.4
35°	4542.8	4504.6	4406.3	4235.7	4013.9	3756.0	3918.8	4276.2	4938.4	5351.5	5026.9
37.5°	4855.3	4810.5	4703.4	4523.1	4367.9	4124.3	4169.1	4527.5	5340.6	5858.6	5378.8
40°	5205.1	5140.6	5010.5	4832.5	4681.6	4555.9	4498.0	4835.7	5749.3	6424.6	5818.1
42.5°	5543.8	5482.6	5327.4	5175.5	4986.5	4950.4	4879.4	5196.3	6196.2	7046.5	6264.0
45°	5908.8	5835.6	5647.6	5455.4	5336.3	5212.7	5248.8	5556.9	6634.4	7680.3	6731.7
47.5°	6250.9	6169.0	5947.0	5732.9	5667.3	5433.4	5587.6	5953.6	7090.1	8322.9	7195.1
50°	6435.6	6354.7	6170.0	5976.6	5925.2	5705.6	5954.7	6389.6	7567.7	8963.2	7639.8
52.5°	6589.6	6502.2	6260.7	6153.6	6138.3	6001.7	6407.2	6888.0	8045.3	9529.3	8069.3
55°	6753.6	6656.4	6348.1	6252.0	6321.9	6334.0	6943.8	7453.0	8550.1	10081.2	8474.8
57.5°	6942.6	6819.1	6432.3	6335.0	6501.2	6723.0	7560.1	8038.8	9046.3	10592.7	8835.4
60°	7120.8	6996.1	6594.0	6467.2	6694.6	7174.3	8267.1	8748.0	9608.0	11048.4	9176.3
62.5°	7155.7	7053.0	6723.0	6721.8	6956.9	7701.0	9104.3	9463.7	10098.7	11498.6	9482.4
65°	6550.4	6485.9	6290.2	6712.0	7332.7	8459.4	10036.4	10379.6	10722.6	11891.9	9751.1
67.5°	4985.4	4994.1	4980.0	5794.1	7028.9	9549.0	11386.0	11359.8	11493.1	12333.5	10060.5
70°	2279.6	2331.0	2665.4	3999.7	5631.2	9674.7	13617.5	13277.6	12460.2	12905.1	10328.2
72.5°	1231.6	1270.9	1407.5	1937.6	3385.6	8601.5	15285.2	15526.7	13746.5	13289.7	10034.2
75°	903.7	925.6	1020.7	1231.6	1421.8	6392.9	14687.4	15926.7	13907.1	12392.5	8664.9
77.5°	676.5	686.2	763.8	975.9	727.9	3370.2	11735.7	13190.2	11905.1	10181.7	6400.6
80°	490.7	501.6	559.5	732.2	510.3	1232.7	8058.4	9258.3	8153.5	6490.2	3189.9
82.5°	338.8	343.2	368.3	498.4	356.3	478.7	4572.3	5429.1	4551.6	2277.4	861.1
85°	204.4	209.8	220.8	290.7	202.1	227.3	1973.6	2041.4	1360.6	544.2	267.7
87.5°	84.2	89.6	98.4	122.4	79.7	63.3	325.6	408.7	254.6	159.6	83.0
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°	3728.6	3728.6	3728.6	3728.6	3728.6	3728.6	3728.6	3728.6	3728.6	3728.6	3728.6
2.5°	3734.2	3726.5	3705.7	3677.3	3651.0	3618.4	3604.1	3592.1	3581.1	3560.3	3550.5
5°	3757.1	3736.3	3680.6	3608.5	3526.5	3436.9	3349.5	3289.3	3238.0	3199.7	3168.1
7.5°	3792.1	3752.7	3651.0	3503.6	3315.6	3123.3	2949.5	2826.0	2733.2	2699.2	2640.2
10°	3828.2	3781.1	3604.1	3344.0	3019.4	2723.3	2492.7	2365.9	2291.6	2267.6	2230.4
12.5°	3870.7	3801.9	3530.9	3122.1	2688.4	2363.8	2162.6	2088.3	2050.1	2037.0	2040.3
15°	3933.0	3819.4	3420.5	2844.6	2372.5	2101.5	1971.5	1920.0	1900.4	1899.3	1903.6
17.5°	3980.0	3822.6	3248.9	2547.3	2129.8	1943.0	1835.9	1816.3	1829.3	1849.0	1856.7
20°	4032.5	3793.1	3023.9	2276.3	1959.4	1804.2	1759.4	1772.5	1804.2	1832.6	1842.4
22.5°	4069.7	3739.6	2751.7	2065.4	1811.9	1724.5	1722.3	1749.6	1767.1	1781.2	1788.9
25°	4102.5	3648.9	2463.2	1888.4	1690.5	1676.4	1700.4	1691.7	1679.7	1691.7	1699.3
27.5°	4126.4	3505.7	2205.3	1733.2	1605.4	1643.6	1629.3	1609.8	1608.6	1615.2	1626.1
30°	4118.9	3314.5	1993.3	1585.7	1545.2	1582.4	1548.5	1545.2	1541.9	1545.2	1557.3
32.5°	4118.9	3097.0	1830.4	1484.0	1507.0	1492.8	1489.5	1481.8	1468.7	1467.7	1481.8
35°	4141.7	2879.5	1690.5	1429.4	1475.3	1441.5	1443.6	1425.1	1397.7	1384.6	1397.7
37.5°	4188.8	2704.7	1551.7	1403.1	1419.5	1418.5	1409.7	1378.0	1329.9	1288.4	1302.7
40°	4302.4	2653.3	1456.7	1391.1	1393.4	1406.4	1383.5	1322.4	1213.0	1145.2	1154.0
42.5°	4480.6	2739.7	1435.9	1361.6	1375.9	1389.0	1344.2	1202.1	1124.5	1084.0	1084.0
45°	4706.7	2890.5	1480.7	1319.1	1334.3	1357.3	1224.0	1156.2	1121.2	1122.3	1127.8
47.5°	4993.1	3049.0	1563.8	1281.9	1274.2	1287.3	1144.2	1102.7	1054.5	1066.6	1097.2
50°	5324.2	3209.6	1642.5	1231.6	1207.6	1164.9	1092.9	1053.5	992.3	963.9	971.5
52.5°	5682.6	3364.8	1674.2	1170.4	1135.4	1086.3	1057.8	1009.7	935.4	888.5	887.3
55°	6022.5	3505.7	1639.2	1097.2	1063.3	1025.1	1020.7	991.2	911.4	845.8	845.8
57.5°	6343.8	3623.8	1551.7	1022.8	990.0	967.2	996.6	982.5	881.9	797.8	793.3
60°	6615.9	3704.7	1425.1	947.5	924.6	912.5	957.4	952.9	840.4	746.4	743.1
62.5°	6832.2	3736.3	1285.1	875.4	869.9	848.0	902.6	902.6	787.9	696.1	692.8
65°	7001.7	3705.7	1143.1	804.3	815.3	782.5	836.0	829.4	732.2	651.3	647.0
67.5°	7151.3	3605.2	985.7	734.4	759.5	718.0	766.1	750.8	671.0	606.5	602.2
70°	7218.0	3371.3	806.5	664.4	695.1	654.6	696.1	667.7	602.2	558.4	549.7
72.5°	6682.6	2801.9	634.9	591.2	617.5	584.7	620.7	587.9	527.9	508.2	491.8
75°	5528.5	2102.6	488.5	511.5	531.2	505.9	530.0	505.9	451.3	465.6	425.1
77.5°	4015.0	1419.5	373.7	427.3	436.0	422.9	443.7	416.4	367.2	363.9	347.5
80°	1996.6	831.6	292.8	337.6	334.4	325.6	349.7	336.6	295.1	312.5	309.2
82.5°	578.1	356.3	213.1	237.2	230.6	232.8	250.3	256.8	384.7	381.4	390.1
85°	181.4	139.9	127.8	132.2	125.7	128.9	147.5	292.8	271.0	158.5	171.6
87.5°	46.9	48.1	31.7	33.9	35.0	41.5	46.9	178.1	85.3	55.8	59.0
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)