

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: P969455

Luminaire Tested: **NAV-SB5D-830-U-SL2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969455
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-SB5D-830-U-SL2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 47056.7 lumens
Efficiency: N/A
Efficacy: 129.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B4 - U0 - G5

Input Watts (W): 364.9
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

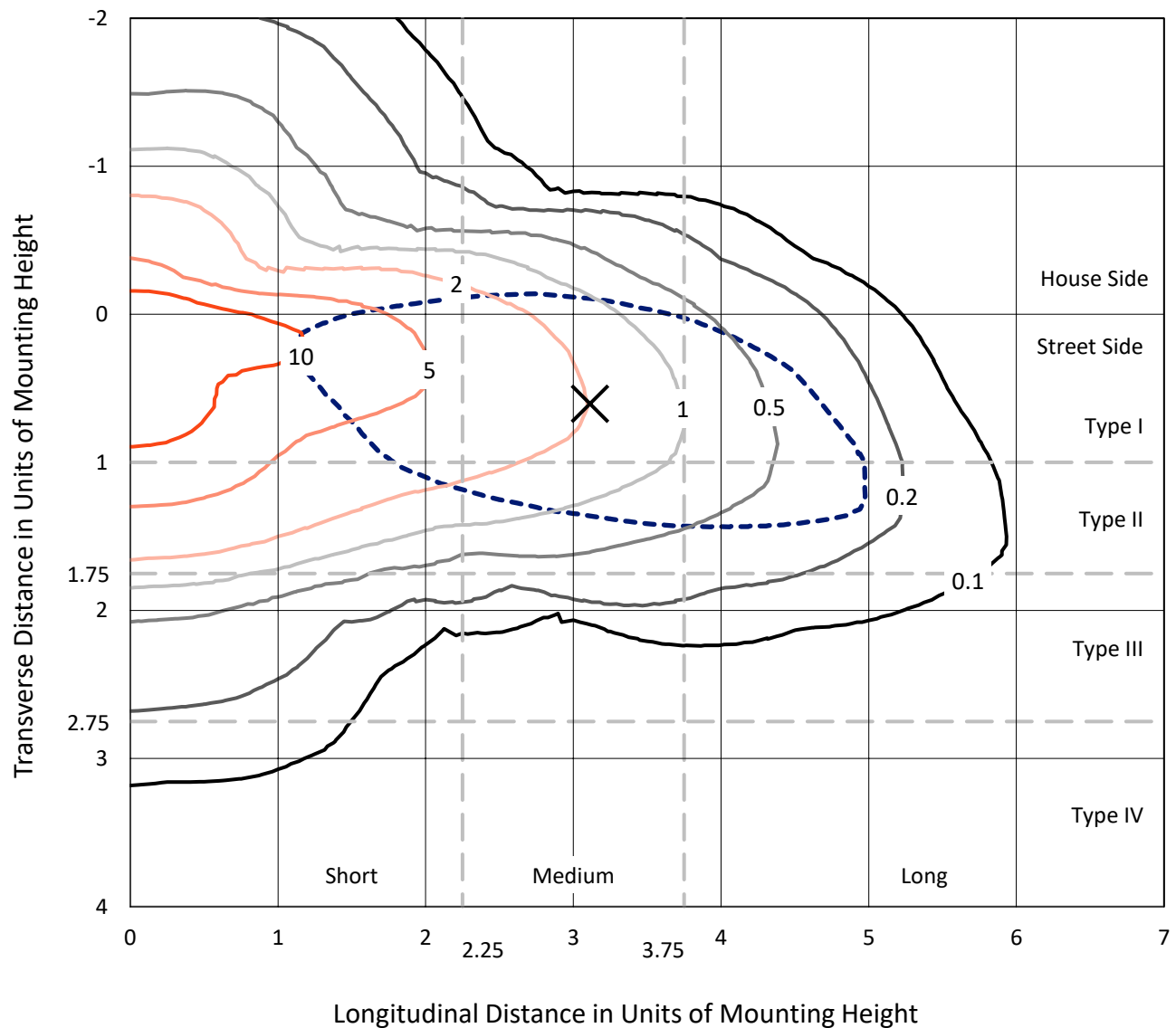


REPORT NUMBER: P969455

CATALOG NUMBER: NAV-SB5D-830-U-SL2

Iso-Footcandle Lines of Horizontal Illumination

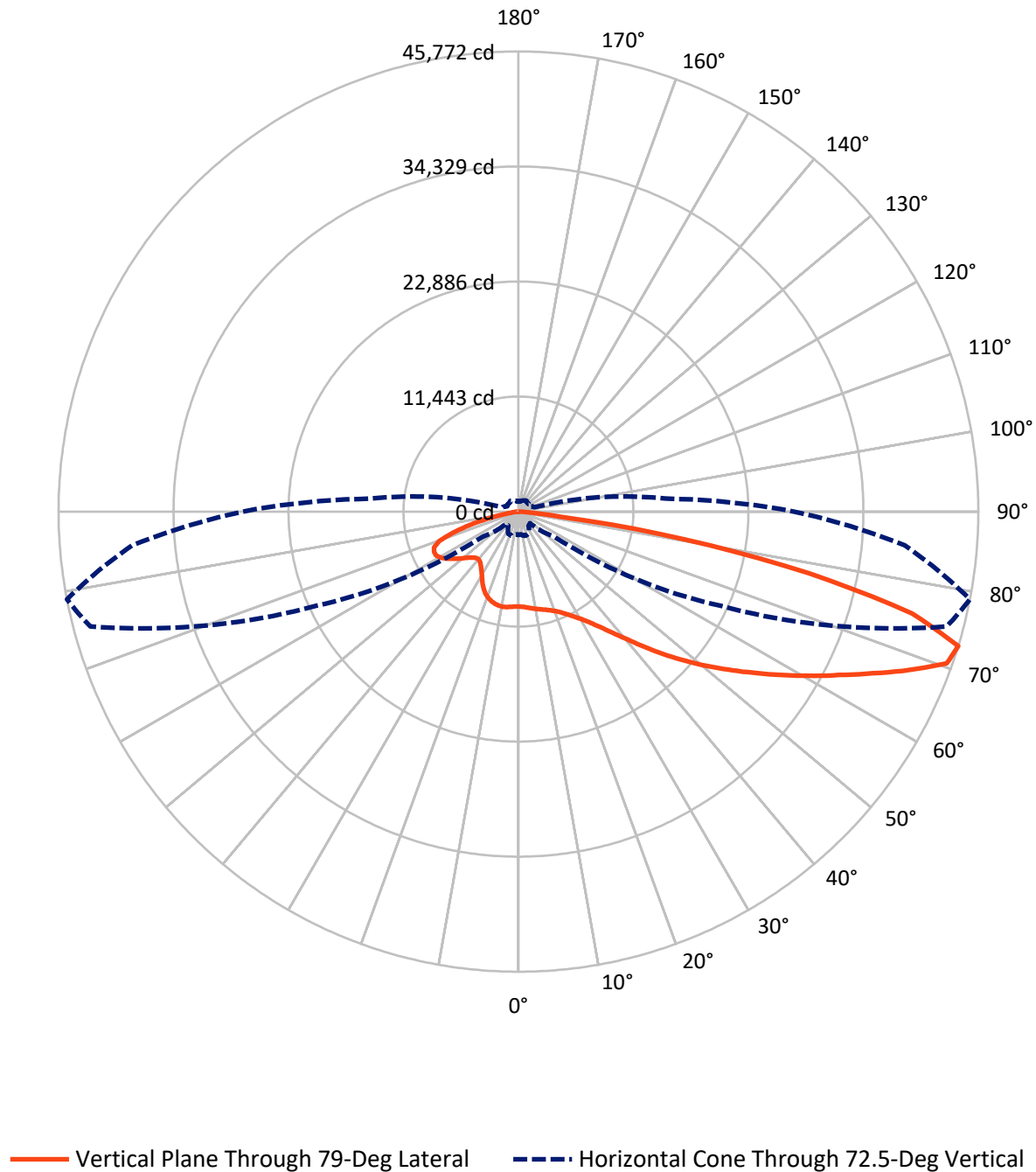
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 15.2 fc
Type II - Medium - N/A

REPORT NUMBER: P969455
CATALOG NUMBER: NAV-SB5D-830-U-SL2

Luminous Intensity Polar Plot



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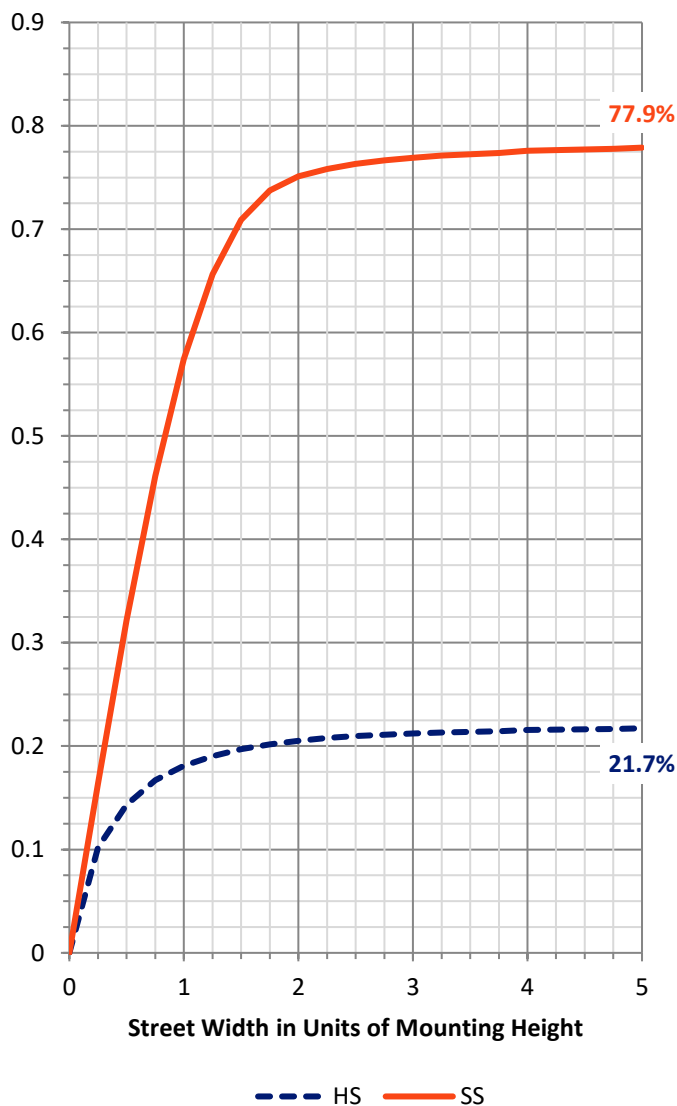
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10355.1	0.0	10355.1
	% Fixture	22.0	0.0	22.0
Street Side	Lumens	36701.6	0.0	36701.6
	% Fixture	78.0	0.0	78.0
Total	Lumens	47056.7	0.0	47056.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	857.4	1.8
10°-20°	2241.8	4.8
20°-30°	3617.3	7.7
30°-40°	5429.1	11.5
40°-50°	7701.5	16.4
50°-60°	9725.9	20.7
60°-70°	9878.0	21.0
70°-80°	6732.3	14.3
80°-90°	873.5	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°	47056.7	100.0
0°-180°	47056.7	100.0

Coefficient of Utilization



REPORT NUMBER: P969455

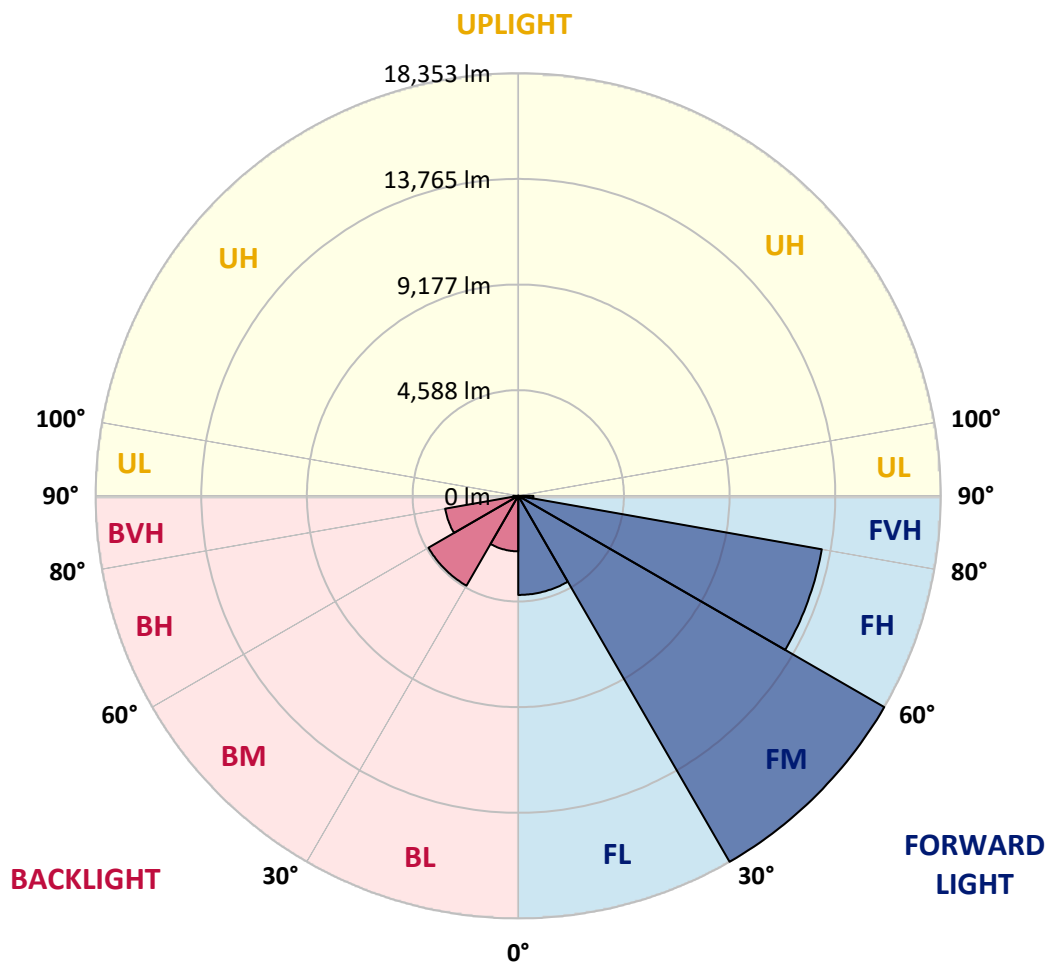
CATALOG NUMBER: NAV-SB5D-830-U-SL2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4304.5	9.1			
FM	(30°-60°)	18353.1	39.0			
FH	(60°-80°)	13386.0	28.4			G5
FVH	(80°-90°)	658.0	1.4			G4/750
BL	(0°-30°)	2412.0	5.1	B3/2500		
BM	(30°-60°)	4503.4	9.6	B3/5000		
BH	(60°-80°)	3224.2	6.9	B4/5000		G4/5000
BVH	(80°-90°)	215.5	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type II Medium



REPORT NUMBER: P969455

CATALOG NUMBER: NAV-SB5D-830-U-SL2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	9446.2	9446.2	9446.2	9446.2	9446.2	9446.2	9446.2	9446.2	9446.2	9446.2	9446.2
2.5°	9451.2	9406.3	9433.8	9423.7	9436.3	9451.2	9456.1	9463.6	9488.5	9486.0	9483.5
5°	9431.2	9386.4	9423.7	9411.3	9443.7	9478.6	9508.4	9535.8	9575.7	9593.1	9568.2
7.5°	9388.9	9359.1	9396.4	9433.8	9493.4	9545.7	9588.1	9650.3	9707.6	9717.5	9734.9
10°	9142.5	9120.1	9207.3	9304.3	9468.6	9610.5	9702.5	9774.7	9837.0	9847.0	9871.9
12.5°	8886.1	8858.8	8955.8	9087.8	9354.0	9610.5	9804.6	9899.2	9954.0	9986.4	10023.7
15°	8843.8	8821.5	8876.2	8990.7	9212.2	9543.3	9874.3	10048.6	10095.8	10133.2	10148.1
17.5°	9048.0	9005.6	9028.0	9067.9	9197.3	9481.0	9929.1	10217.8	10290.0	10329.8	10329.8
20°	9520.8	9461.2	9426.3	9346.7	9324.2	9491.0	9924.0	10421.9	10516.5	10566.3	10578.7
22.5°	10150.6	10110.8	10036.1	9834.5	9615.4	9613.0	10018.7	10683.3	10860.0	10907.3	10877.4
25°	10912.3	10852.5	10758.0	10484.1	10063.4	9854.5	10177.9	11016.8	11313.0	11325.4	11238.3
27.5°	11788.4	11698.8	11569.4	11208.5	10640.9	10232.8	10421.9	11400.2	11833.2	11828.3	11649.0
30°	12711.9	12622.3	12485.4	12047.3	11332.9	10743.0	10760.4	11813.3	12450.6	12423.2	12117.0
32.5°	13386.5	13319.3	13291.9	12953.3	12129.4	11345.4	11148.7	12271.3	13212.2	13187.3	12759.2
35°	13904.2	13817.1	13849.4	13677.7	12998.1	12020.0	11624.1	12816.5	14138.1	14135.7	13603.0
37.5°	14416.9	14339.7	14367.2	14252.6	13802.1	12876.2	12204.2	13483.6	15285.6	15340.5	14623.6
40°	14884.9	14802.7	14912.3	14805.3	14426.9	13787.2	12863.7	14237.8	16614.8	16719.4	15858.2
42.5°	15166.2	15101.4	15283.2	15285.6	14969.5	14556.3	13588.1	15069.1	18153.2	18387.1	17376.5
45°	15263.3	15240.8	15514.6	15571.9	15449.9	15001.9	14240.2	15975.1	19810.9	20229.0	19106.4
47.5°	15158.7	15116.4	15494.7	15706.3	15803.3	15211.0	14780.4	16955.9	21503.5	22115.8	20993.2
50°	14631.1	14548.8	15111.4	15556.9	15903.0	15347.8	15325.5	18088.4	23427.5	24097.1	22889.9
52.5°	13682.6	13620.4	14260.1	15034.3	15683.9	15415.1	15937.8	19325.5	25254.6	26120.8	24833.9
55°	12470.5	12388.4	13092.7	14103.3	15138.8	15392.7	16550.2	20709.4	27410.1	28288.8	26842.6
57.5°	10548.9	10384.6	11275.7	12470.5	14250.2	15365.3	17187.3	22085.9	29600.6	30653.4	28985.8
60°	7746.1	7502.2	8594.9	10011.2	12512.8	15099.0	17976.3	23629.1	32229.1	33177.4	31325.5
62.5°	4510.3	4368.3	5082.8	6404.5	9431.2	13530.8	18419.5	25423.8	34812.8	35808.4	33625.4
65°	3502.2	3462.3	3524.6	3626.7	5249.5	10130.7	17052.9	27173.7	38098.4	38795.3	36022.5
67.5°	3203.5	3173.6	3201.0	3009.3	2663.4	5642.8	13491.0	27616.7	41618.0	42041.2	38120.8
70°	2847.6	2812.7	2902.3	2738.0	2095.8	2566.3	8716.9	26008.8	44418.3	45212.2	39716.3
72.5°	2319.9	2280.0	2489.1	2414.5	1764.7	1647.8	4378.4	22188.0	44124.5	45772.3	38573.8
75°	1782.2	1759.8	2008.7	2070.9	1438.7	1296.8	2100.8	16492.9	38830.2	40490.5	33244.6
77.5°	1384.0	1366.5	1493.4	1720.0	1159.9	1005.6	1291.8	10461.8	29262.0	29553.2	22909.8
80°	1037.9	988.2	1105.2	1331.7	903.5	734.3	876.2	6100.8	18496.6	16766.6	9971.4
82.5°	649.6	624.7	721.8	888.6	637.2	505.3	570.0	3370.3	7412.6	4365.9	1924.1
85°	370.8	360.9	393.3	507.8	345.9	291.2	326.1	1488.5	1354.1	930.9	579.9
87.5°	149.3	144.3	179.2	226.5	126.9	107.0	114.5	358.4	298.7	276.3	191.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P969455

CATALOG NUMBER: NAV-SB5D-830-U-SL2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9446.2	9446.2	9446.2	9446.2	9446.2	9446.2	9446.2	9446.2	9446.2	9446.2	9446.2
2.5°	9473.6	9473.6	9438.7	9384.0	9321.8	9281.9	9217.2	9199.8	9132.5	9112.7	9145.0
5°	9588.1	9568.2	9461.2	9306.8	9095.2	8901.1	8687.0	8552.6	8363.4	8296.2	8346.0
7.5°	9732.5	9677.6	9493.4	9155.0	8711.9	8276.3	7823.3	7479.8	7151.2	7034.3	7049.1
10°	9864.4	9787.2	9473.6	8881.1	8114.5	7360.3	6638.5	6133.2	5749.8	5593.0	5627.9
12.5°	9996.3	9854.5	9341.6	8425.6	7265.7	6242.7	5473.6	5080.3	4843.8	4654.6	4716.8
15°	10120.7	9921.6	9137.6	7815.8	6334.8	5296.8	4729.3	4415.7	4226.5	4102.0	4124.5
17.5°	10265.1	9978.9	8831.4	7041.7	5448.7	4642.2	4179.2	3990.0	3952.7	3937.7	3947.7
20°	10466.7	10031.2	8428.2	6175.5	4796.5	4119.5	3880.5	3863.1	3860.7	3853.2	3878.1
22.5°	10683.3	10093.4	7895.5	5388.9	4241.4	3793.4	3751.1	3716.2	3693.9	3691.3	3718.7
25°	10939.6	10113.3	7228.4	4744.2	3768.5	3639.1	3589.3	3537.1	3522.1	3522.1	3537.1
27.5°	11188.6	10046.0	6451.8	4184.2	3502.2	3497.2	3432.5	3415.1	3412.5	3420.0	3440.0
30°	11437.5	9919.1	5680.1	3666.4	3347.9	3347.9	3325.4	3337.9	3347.9	3372.8	3390.2
32.5°	11773.6	9784.8	5035.5	3283.2	3213.5	3188.6	3210.9	3235.8	3245.8	3278.2	3305.5
35°	12266.4	9690.1	4522.7	3074.1	3074.1	3041.7	3054.2	3049.2	3026.7	3011.9	3046.7
37.5°	12918.5	9685.1	4099.6	2977.0	2957.0	2952.1	2954.6	2922.2	2835.1	2730.6	2733.1
40°	13702.6	9819.6	3773.5	2909.8	2894.8	2924.7	2909.8	2822.6	2583.7	2402.0	2397.1
42.5°	14755.5	10202.8	3564.4	2827.7	2872.5	2909.8	2850.0	2548.9	2387.0	2265.0	2260.1
45°	15995.0	10825.1	3457.4	2740.5	2830.1	2874.9	2586.2	2454.3	2324.8	2178.0	2168.0
47.5°	17398.9	11609.3	3432.5	2658.3	2735.5	2762.9	2474.1	2414.5	2267.6	2108.3	2095.8
50°	18927.2	12537.7	3499.7	2561.3	2598.7	2504.1	2436.8	2382.1	2230.3	2073.5	2056.0
52.5°	20507.8	13560.6	3634.1	2429.4	2461.7	2357.2	2421.9	2374.6	2207.8	1996.3	1981.3
55°	22061.0	14591.2	3763.5	2275.1	2322.3	2225.3	2379.6	2344.8	2105.8	1866.8	1854.4
57.5°	23639.2	15616.7	3890.5	2138.1	2188.0	2098.3	2312.4	2265.0	1991.3	1747.3	1742.4
60°	25279.5	16612.4	3950.2	2006.2	2041.1	1981.3	2210.3	2128.2	1861.8	1625.3	1618.0
62.5°	26815.2	17441.2	3853.2	1874.3	1896.7	1871.9	2075.9	1966.4	1732.5	1488.5	1486.0
65°	28356.0	17934.1	3554.5	1744.9	1749.9	1737.4	1886.7	1792.2	1580.6	1369.0	1354.1
67.5°	29752.4	18210.4	3079.0	1605.5	1593.1	1588.0	1710.0	1603.0	1433.8	1249.6	1234.6
70°	30048.6	17508.4	2352.2	1441.1	1441.1	1428.7	1515.9	1406.3	1271.9	1122.6	1117.7
72.5°	27445.0	14728.1	1670.2	1254.5	1274.4	1249.6	1321.7	1229.6	1107.6	1008.1	978.3
75°	22130.7	10800.2	1214.7	1062.8	1097.7	1055.3	1122.6	1057.9	953.4	950.9	856.3
77.5°	15206.0	6678.3	881.2	876.2	901.1	846.3	923.4	888.6	794.1	751.7	704.4
80°	6489.2	2663.4	642.2	677.0	677.0	627.3	716.9	726.8	644.7	624.7	624.7
82.5°	1291.8	756.7	450.5	465.5	438.1	423.1	507.8	562.5	776.6	863.8	866.2
85°	388.3	278.8	271.3	253.9	224.1	226.5	298.7	565.0	697.0	398.2	343.5
87.5°	107.0	69.7	72.2	57.3	47.3	62.2	102.1	428.1	234.0	99.5	84.7
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)