

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: P965246

Luminaire Tested: **NAV-SB3D-830-U-SLR-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965246
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3D-830-U-SLR-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND SPILL LIGHT
ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21461.4 lumens
Efficiency: N/A
Efficacy: 98.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

Input Watts (W): 218.1
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

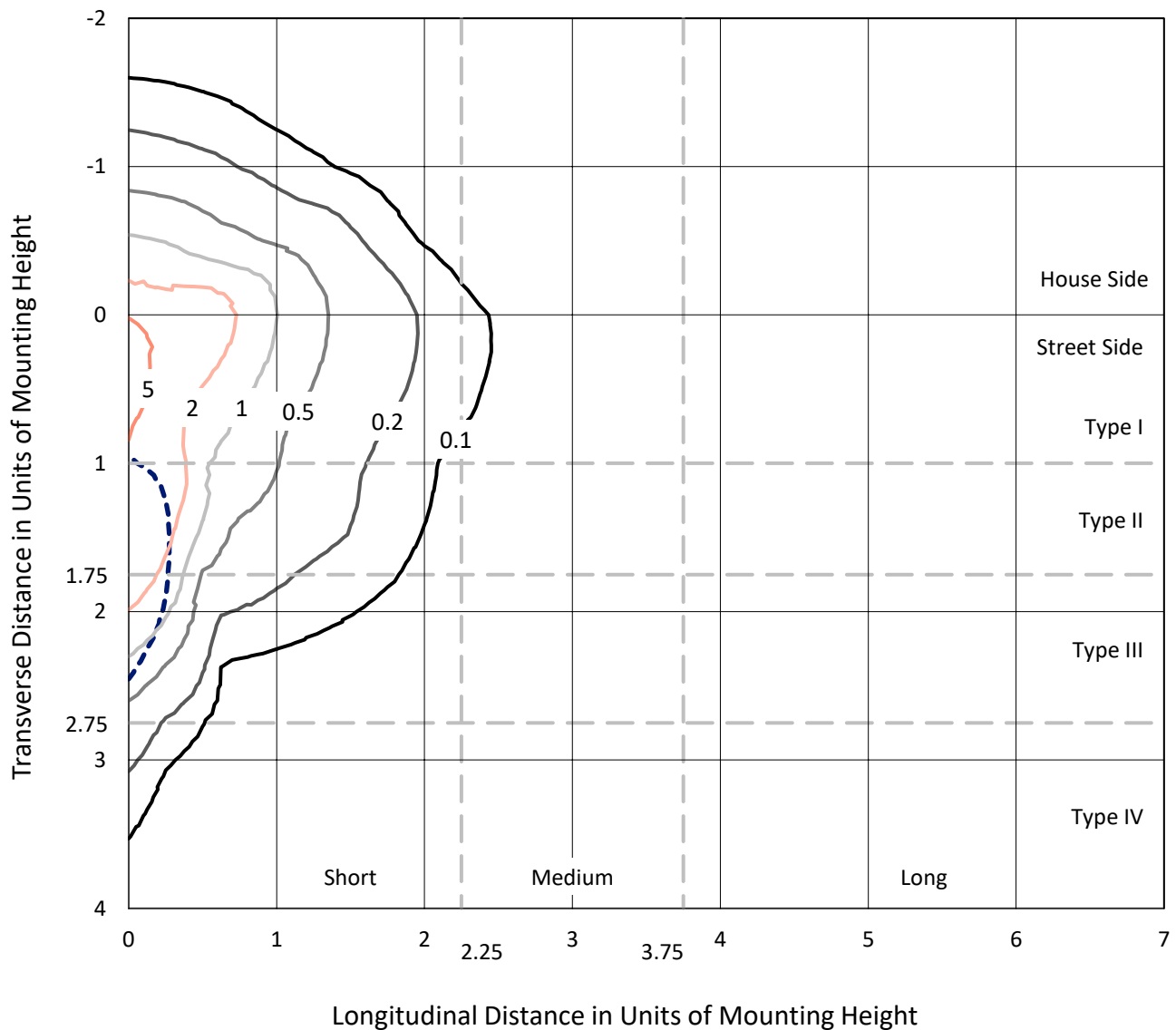


REPORT NUMBER: P965246

CATALOG NUMBER: NAV-SB3D-830-U-SLR-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

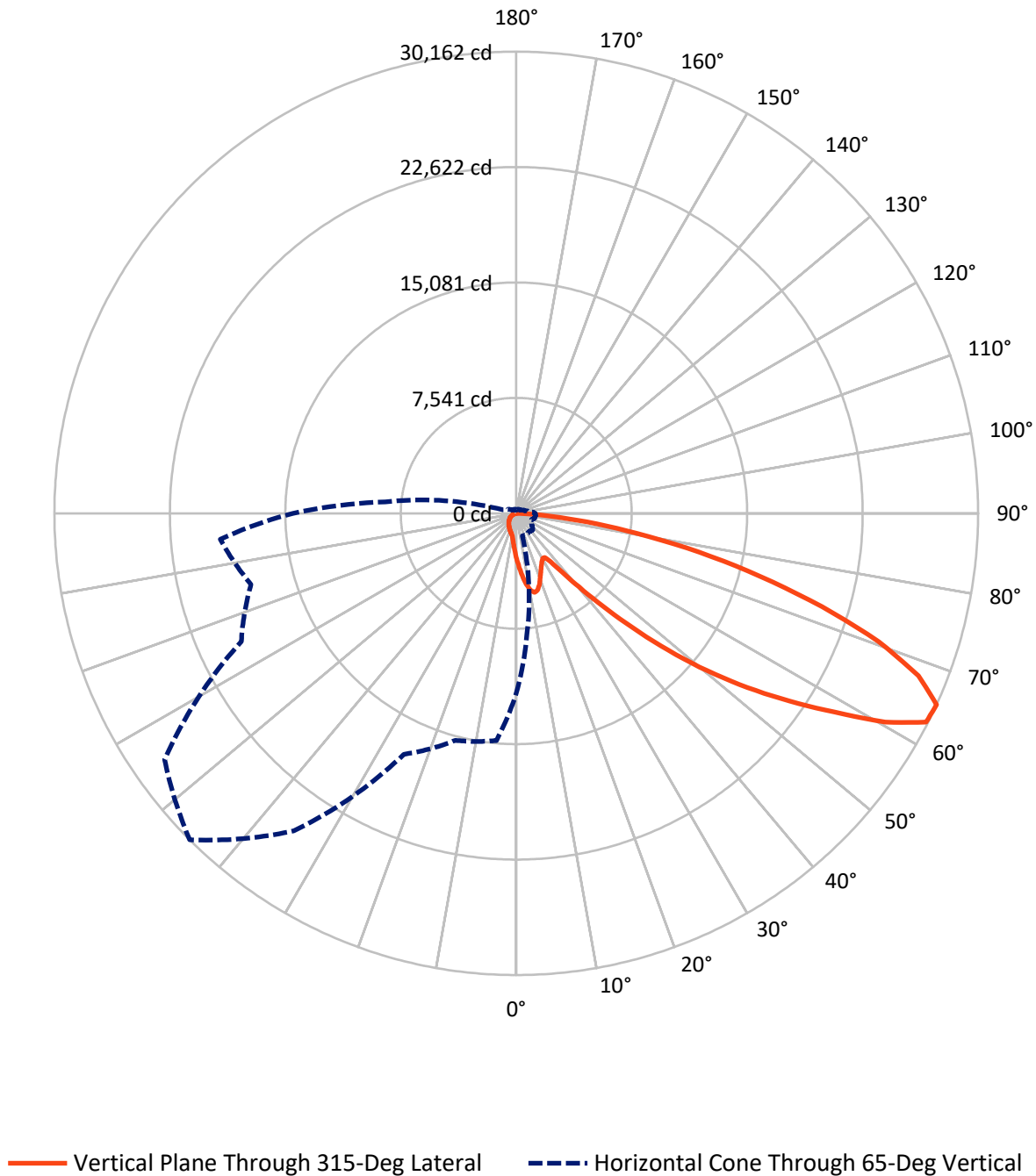


Based on 25 foot mounting height. Maximum calculated value = 6.6 fc

Type IV - Short - N/A

REPORT NUMBER: P965246
CATALOG NUMBER: NAV-SB3D-830-U-SLR-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P965246

CATALOG NUMBER: NAV-SB3D-830-U-SLR-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3005.5	0.0	3005.5
	% Fixture	14.0	0.0	14.0
Street Side	Lumens	18455.9	0.0	18455.9
	% Fixture	86.0	0.0	86.0
Total	Lumens	21461.4	0.0	21461.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	292.6	1.4
10°-20°	877.1	4.1
20°-30°	1292.1	6.0
30°-40°	1660.0	7.7
40°-50°	2684.7	12.5
50°-60°	4707.8	21.9
60°-70°	5890.8	27.4
70°-80°	3442.3	16.0
80°-90°	614.2	2.9
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°	21461.4	100.0
0°-180°	21461.4	100.0

Coefficient of Utilization



REPORT NUMBER: P965246

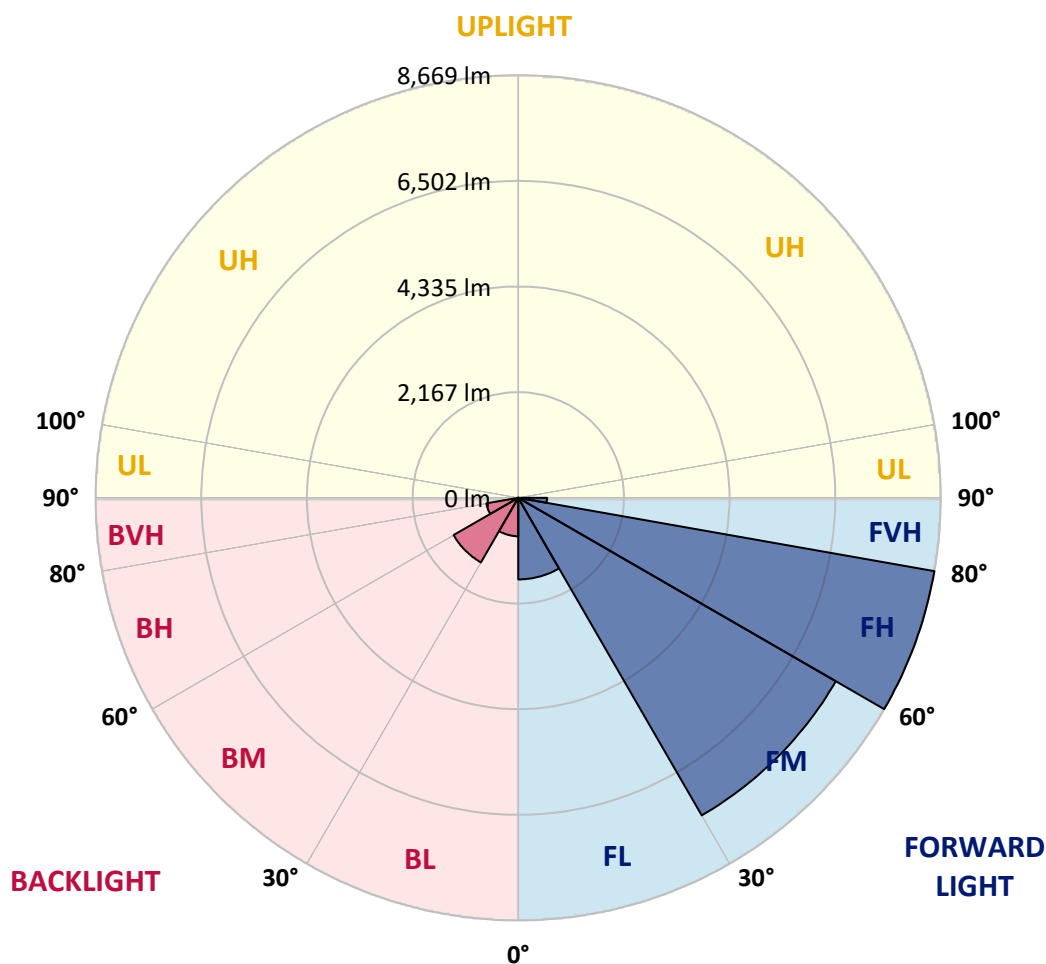
CATALOG NUMBER: NAV-SB3D-830-U-SLR-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1673.9	7.8			
FM	(30°-60°)	7522.0	35.0			
FH	(60°-80°)	8669.4	40.4			G4/12000
FVH	(80°-90°)	590.6	2.8			G4/750
BL	(0°-30°)	787.8	3.7	B2/1000		
BM	(30°-60°)	1530.5	7.1	B2/2500		
BH	(60°-80°)	663.6	3.1	B2/1000		G2/1000
BVH	(80°-90°)	23.6	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type IV Short



REPORT NUMBER: P965246

CATALOG NUMBER: NAV-SB3D-830-U-SLR-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2971.7	2971.7	2971.7	2971.7	2971.7	2971.7	2971.7	2971.7	2971.7	2971.7	2971.7
2.5°	3357.6	3300.0	3266.0	3181.7	3097.3	3029.4	2937.8	2877.1	2804.7	2735.2	2673.1
5°	3742.0	3648.9	3536.5	3382.7	3242.3	3098.9	2959.9	2822.4	2677.5	2544.5	2463.2
7.5°	4067.3	3932.7	3734.6	3530.6	3351.6	3178.7	3016.1	2834.2	2658.3	2449.9	2338.9
10°	4315.7	4144.2	3883.9	3616.3	3410.8	3236.3	3078.2	2924.4	2747.0	2495.7	2356.7
12.5°	4466.4	4283.2	3974.1	3660.7	3425.7	3230.5	3107.7	3039.7	2970.2	2720.4	2557.8
15°	4577.3	4379.2	4037.7	3691.7	3391.6	3152.1	3061.9	3129.9	3209.8	3050.1	2862.3
17.5°	4692.7	4484.2	4120.5	3705.1	3300.0	2999.8	2961.3	3137.3	3322.1	3314.7	3128.4
20°	4802.0	4595.1	4193.0	3696.2	3152.1	2815.0	2849.0	3073.8	3288.1	3378.3	3277.7
22.5°	4927.8	4709.0	4262.5	3662.1	2959.9	2642.0	2748.4	2973.2	3161.0	3267.4	3236.3
25°	5081.5	4852.3	4360.0	3611.9	2752.9	2498.6	2646.4	2856.4	3008.7	3082.6	3081.1
27.5°	5247.1	5023.8	4490.1	3585.2	2585.9	2396.6	2531.1	2717.4	2853.5	2905.2	2905.2
30°	5452.6	5223.4	4643.9	3555.7	2476.4	2337.4	2411.4	2556.2	2689.3	2741.1	2741.1
32.5°	5677.4	5445.2	4791.7	3484.8	2409.9	2293.1	2294.6	2386.2	2507.5	2569.6	2578.5
35°	5958.2	5711.3	4949.9	3329.5	2356.7	2241.4	2180.8	2225.1	2325.6	2399.5	2418.8
37.5°	6358.9	6060.2	5143.6	3107.7	2278.4	2161.5	2061.0	2071.3	2148.2	2229.6	2259.1
40°	6911.9	6528.9	5371.3	2877.1	2165.9	2049.2	1929.4	1925.0	1981.1	2061.0	2093.6
42.5°	7659.9	7148.4	5644.8	2656.8	2058.0	1913.2	1790.5	1783.0	1827.4	1896.9	1930.9
45°	8647.6	7940.9	5980.4	2467.6	1973.7	1780.1	1658.9	1655.9	1692.9	1753.5	1788.9
47.5°	9911.6	9042.3	6316.0	2338.9	1929.4	1675.1	1550.9	1556.9	1589.4	1644.1	1669.2
50°	11548.4	10478.0	6418.0	2273.9	1929.4	1618.9	1454.8	1484.4	1511.0	1552.4	1567.2
52.5°	13510.2	11855.9	6080.9	2214.7	1941.2	1626.4	1373.5	1437.0	1456.3	1491.8	1497.7
55°	15328.8	12531.5	5227.9	2133.4	1944.2	1672.2	1304.0	1398.6	1434.1	1447.4	1446.0
57.5°	16384.4	12299.4	4226.9	1996.0	1932.3	1703.2	1259.6	1351.4	1419.3	1428.2	1414.9
60°	16183.3	11484.7	3112.2	1890.9	1845.1	1691.4	1246.4	1278.9	1386.8	1400.1	1382.4
62.5°	14633.9	10118.7	2160.1	1809.6	1652.9	1639.6	1241.9	1165.0	1315.8	1348.4	1323.3
65°	11762.7	7966.0	1525.8	1558.3	1448.9	1527.2	1218.2	1046.7	1230.1	1274.5	1236.0
67.5°	8533.7	5390.5	1101.5	1262.6	1312.9	1345.4	1165.0	961.0	1132.5	1191.7	1141.3
70°	5476.3	2911.1	773.3	833.8	1105.9	1142.9	1073.4	884.2	1033.4	1101.5	1046.7
72.5°	3892.8	1719.4	555.9	584.0	888.6	952.1	944.7	798.4	918.1	1000.9	935.8
75°	2686.4	947.7	375.6	417.0	644.6	773.3	728.9	686.0	777.7	861.9	798.4
77.5°	1684.0	424.4	224.7	289.8	422.8	607.6	499.7	530.7	606.2	684.5	618.0
80°	937.4	164.1	125.7	192.2	230.6	442.1	276.4	341.5	446.5	502.7	449.5
82.5°	204.1	20.7	56.2	82.8	90.2	257.3	146.4	198.1	281.0	276.4	239.5
85°	0.0	0.0	10.4	11.8	5.9	110.9	53.2	65.1	91.6	85.8	65.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	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

REPORT NUMBER: P965246

CATALOG NUMBER: NAV-SB3D-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	2971.7	2971.7	2971.7	2971.7	2971.7	2971.7	2971.7	2971.7	2971.7	2971.7	2971.7
2.5°	2661.2	2588.8	2535.5	2509.0	2486.8	2507.5	2519.3	2519.3	2569.6	2599.2	2611.0
5°	2411.4	2281.2	2182.2	2115.7	2075.7	2089.1	2103.8	2120.1	2183.7	2226.6	2254.7
7.5°	2238.4	2038.8	1888.0	1794.9	1746.1	1753.5	1763.8	1777.1	1839.3	1882.1	1919.0
10°	2205.9	1919.0	1706.1	1583.4	1524.3	1513.9	1508.1	1503.6	1540.6	1573.1	1602.7
12.5°	2338.9	1925.0	1627.8	1478.5	1406.0	1374.9	1339.5	1311.4	1317.3	1338.0	1374.9
15°	2577.0	2000.4	1602.7	1423.7	1333.6	1281.9	1240.5	1206.4	1199.0	1206.4	1212.4
17.5°	2849.0	2102.4	1599.7	1376.5	1264.1	1210.8	1176.9	1145.8	1135.5	1136.9	1144.3
20°	3029.4	2183.7	1590.8	1323.3	1197.6	1150.3	1120.6	1089.7	1079.3	1082.2	1083.7
22.5°	3047.1	2226.6	1577.6	1264.1	1131.0	1091.1	1061.5	1033.4	1032.0	1032.0	1040.9
25°	2951.0	2226.6	1549.4	1210.8	1067.4	1032.0	1005.3	971.4	977.2	980.2	992.1
27.5°	2801.7	2173.3	1496.2	1168.0	1012.8	975.8	949.1	918.1	925.5	930.0	943.3
30°	2653.8	2105.4	1432.6	1119.2	961.0	918.1	898.9	872.3	875.2	881.2	896.0
32.5°	2516.4	2032.9	1357.2	1079.3	909.3	866.4	851.6	822.0	826.5	832.4	848.6
35°	2380.4	1953.0	1268.5	1032.0	861.9	819.1	807.3	773.3	776.2	785.0	802.8
37.5°	2234.0	1868.8	1196.1	984.6	816.1	771.7	759.9	724.5	727.4	737.8	758.5
40°	2080.2	1786.0	1125.1	934.4	767.3	722.9	712.6	674.1	677.1	689.0	711.1
42.5°	1925.0	1695.8	1070.4	869.3	717.1	669.7	659.4	623.9	628.3	641.6	663.8
45°	1781.6	1587.8	1034.9	796.9	669.7	616.5	606.2	573.7	582.5	597.3	619.5
47.5°	1658.9	1477.0	1020.2	736.3	619.5	561.8	553.0	526.3	541.1	557.4	575.1
50°	1553.9	1370.5	1000.9	674.1	572.2	514.6	505.6	487.9	507.1	523.4	539.7
52.5°	1478.5	1249.3	959.5	618.0	530.7	474.6	471.6	462.8	480.5	495.3	510.0
55°	1413.4	1123.6	893.0	569.2	493.8	440.5	443.5	439.1	453.9	465.8	479.0
57.5°	1354.2	1014.2	808.7	530.7	453.9	411.0	419.8	414.0	421.4	428.8	445.1
60°	1283.3	903.3	708.2	487.9	406.6	381.4	391.8	375.6	374.0	377.0	381.4
62.5°	1178.3	754.0	603.2	434.7	365.2	348.9	353.3	322.3	298.7	298.7	303.1
65°	1032.0	606.2	505.6	375.6	317.9	304.5	301.7	257.3	224.7	221.8	235.0
67.5°	861.9	498.3	419.8	316.4	264.7	255.7	258.7	226.2	193.7	190.8	205.5
70°	702.2	412.5	338.6	252.9	204.1	212.9	226.2	193.7	162.7	158.2	171.5
72.5°	570.7	328.2	264.7	193.7	150.8	175.9	192.2	158.2	128.6	125.7	137.5
75°	440.5	241.0	189.2	131.6	109.4	136.0	150.8	115.3	91.6	87.2	97.6
77.5°	294.2	149.3	106.5	82.8	65.1	93.2	100.6	60.6	53.2	51.8	59.1
80°	178.9	69.5	45.8	39.9	22.1	34.0	39.9	25.1	28.1	29.5	35.5
82.5°	90.2	19.3	7.4	1.4	0.0	0.0	11.8	5.9	11.8	14.8	22.1
85°	7.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	7.4	13.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9
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: P965246

CATALOG NUMBER: NAV-SB3D-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	2971.7	2971.7	2971.7	2971.7	2971.7	2971.7	2971.7	2971.7	2971.7	2971.7	2971.7
2.5°	2693.8	2755.9	2815.0	2909.7	3007.2	3103.3	3200.9	3295.5	3329.5	3354.6	3410.8
5°	2383.3	2500.1	2636.1	2823.9	3025.0	3231.9	3441.8	3634.0	3721.3	3780.4	3913.6
7.5°	2062.5	2214.7	2409.9	2692.3	3007.2	3336.9	3666.6	3969.7	4110.1	4224.0	4426.6
10°	1744.6	1910.2	2157.1	2479.4	2905.2	3378.3	3833.7	4250.6	4432.4	4575.9	4850.8
12.5°	1465.1	1620.4	1879.1	2235.4	2745.6	3345.8	3929.7	4431.0	4645.4	4806.5	5108.1
15°	1268.5	1377.9	1607.1	1991.5	2556.2	3240.8	3935.7	4516.8	4751.8	4920.3	5182.0
17.5°	1159.1	1196.1	1345.4	1743.1	2346.3	3103.3	3881.0	4546.3	4797.6	4954.3	5136.2
20°	1100.0	1105.9	1147.3	1420.9	2077.3	2974.7	3829.2	4575.9	4840.5	4972.1	5026.8
22.5°	1052.7	1052.7	1063.0	1162.0	1729.8	2820.9	3813.0	4627.6	4899.6	4981.0	4868.6
25°	1009.8	1009.8	1012.8	1039.4	1370.5	2585.9	3802.6	4707.4	4981.0	5003.1	4694.2
27.5°	965.4	966.9	966.9	981.7	1104.4	2266.5	3758.3	4810.9	5078.6	5032.8	4527.1
30°	921.1	924.0	924.0	934.4	977.2	1892.5	3671.0	4935.2	5205.7	5071.2	4361.5
32.5°	876.7	879.7	879.7	888.6	919.6	1511.0	3561.7	5048.9	5334.3	5087.4	4207.7
35°	830.9	835.4	832.4	844.2	876.7	1202.0	3422.7	5162.8	5473.3	5139.1	4132.3
37.5°	785.0	788.0	786.6	798.4	835.4	1037.9	3261.5	5248.6	5662.5	5254.5	4222.5
40°	739.2	737.8	737.8	751.0	791.0	990.6	3058.9	5384.6	5934.5	5457.0	4615.8
42.5°	691.9	691.9	689.0	703.8	752.6	955.1	2865.3	5628.6	6330.8	5779.4	5313.6
45°	649.0	647.6	641.6	655.0	715.6	893.0	2797.2	6083.9	6916.3	6301.2	6157.8
47.5°	607.6	606.2	591.4	603.2	671.3	836.8	3051.5	6829.1	7728.0	7068.6	6948.8
50°	570.7	572.2	544.1	554.4	626.9	794.0	3603.1	7795.9	8805.8	8102.0	7698.4
52.5°	536.7	536.7	499.7	505.6	572.2	755.5	4127.9	8844.2	10228.1	9543.6	8572.2
55°	502.7	499.7	458.3	461.2	517.4	700.8	4206.3	9867.3	12167.8	11712.5	9766.8
57.5°	464.2	458.3	419.8	419.8	467.2	660.9	3645.9	10653.8	14574.8	14900.0	11489.2
60°	417.0	412.5	387.3	380.0	427.3	696.4	2572.5	10745.5	16127.1	19138.8	14787.7
62.5°	356.3	362.2	348.9	338.6	388.9	722.9	1524.3	10007.8	15751.6	20487.2	18738.1
65°	281.0	304.5	301.7	294.2	427.3	609.2	900.4	8591.3	14599.9	19399.0	17932.4
67.5°	239.5	255.7	251.3	251.3	448.0	462.8	566.2	6712.2	13014.9	18108.3	16017.8
70°	204.1	220.3	204.1	204.1	338.6	281.0	391.8	4686.7	11304.4	16680.1	14761.0
72.5°	168.5	184.8	167.1	155.3	270.6	209.9	286.8	2928.8	9681.0	15192.8	13900.5
75°	128.6	147.8	134.6	119.7	178.9	156.7	217.3	1701.7	8020.7	12998.7	12674.9
77.5°	81.3	106.5	100.6	84.3	131.6	113.9	156.7	1012.8	6188.8	10157.1	10902.2
80°	50.2	54.7	56.2	53.2	75.4	76.9	106.5	576.6	4235.8	7079.0	8517.4
82.5°	32.5	32.5	25.1	28.1	37.0	44.4	60.6	217.3	2489.7	4309.7	5928.7
85°	23.7	20.7	13.3	13.3	17.7	22.1	23.7	66.5	1009.8	1701.7	2318.2
87.5°	11.8	10.4	4.4	5.9	8.9	7.4	5.9	3.0	254.3	544.1	381.4
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: P965246

CATALOG NUMBER: NAV-SB3D-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	2971.7	2971.7	2971.7	2971.7	2971.7	2971.7	2971.7	2971.7
2.5°	3440.4	3486.2	3489.2	3489.2	3449.2	3447.8	3366.5	3357.6
5°	4051.0	4080.6	4088.0	4073.1	3993.3	3934.3	3776.0	3742.0
7.5°	4609.8	4669.0	4669.0	4633.5	4503.4	4382.2	4153.0	4067.3
10°	5056.3	5124.4	5109.6	5037.2	4873.1	4706.0	4428.0	4315.7
12.5°	5273.7	5343.2	5304.8	5222.0	5062.3	4886.4	4593.6	4466.4
15°	5269.2	5250.0	5210.2	5199.8	5122.8	4989.8	4716.3	4577.3
17.5°	5081.5	4918.9	4887.8	4991.3	5088.9	5056.3	4822.7	4692.7
20°	4784.3	4500.5	4472.4	4670.5	4948.4	5090.4	4921.8	4802.0
22.5°	4470.8	4164.9	4099.8	4318.6	4737.0	5100.7	5047.5	4927.8
25°	4173.7	3866.2	3801.1	4005.2	4501.9	5083.0	5183.5	5081.5
27.5°	3925.3	3628.2	3567.5	3771.6	4275.7	5032.8	5319.5	5247.1
30°	3733.2	3458.1	3413.8	3610.5	4080.6	4970.6	5492.6	5452.6
32.5°	3620.8	3419.7	3436.0	3597.1	3975.6	4902.6	5658.1	5677.4
35°	3731.6	3740.5	3882.5	3949.0	4073.1	4892.2	5882.8	5958.2
37.5°	4283.2	4590.7	4884.8	4830.2	4550.7	5012.0	6218.5	6358.9
40°	5222.0	5853.3	6330.8	6122.3	5418.6	5378.7	6701.9	6911.9
42.5°	6369.2	7439.7	8226.2	7667.3	6537.8	6020.3	7392.3	7659.9
45°	7580.1	9395.7	10634.7	9472.5	7731.0	6919.3	8437.6	8647.6
47.5°	8856.0	11773.0	13375.7	11474.4	8836.8	7942.3	9862.9	9911.6
50°	10251.7	14379.6	16170.0	13474.8	9904.3	9114.8	11604.5	11548.4
52.5°	11580.9	17060.1	18905.2	15484.1	10841.6	10569.6	13625.5	13510.2
55°	12849.4	19739.0	21656.6	17414.9	11725.7	12491.6	16026.6	15328.8
57.5°	14320.5	22147.5	24492.4	19354.7	12961.7	14987.2	18711.5	16384.4
60°	16495.3	24884.1	27699.1	22012.9	15312.5	17610.0	19674.0	16183.3
62.5°	19271.8	27400.5	30030.7	24618.0	17673.7	18103.9	18256.2	14633.9
65°	19811.5	28037.7	30162.3	25314.3	17369.0	15356.9	14904.4	11762.7
67.5°	18380.3	26886.0	28323.0	24017.7	15364.2	11867.7	11184.6	8533.7
70°	16774.7	24690.4	25117.7	21813.3	13513.2	8728.9	7553.5	5476.3
72.5°	15129.2	21761.6	20877.5	18943.6	11876.6	6355.9	5448.2	3892.8
75°	13174.6	17910.1	16445.0	15739.8	9833.3	4988.4	3941.6	2686.4
77.5°	10550.3	12606.9	12215.1	12200.4	7389.4	3644.4	2630.1	1684.0
80°	7442.6	8181.9	7982.3	9188.7	4957.3	2643.5	1583.4	937.4
82.5°	3603.1	4524.1	4643.9	5471.9	2411.4	1555.3	365.2	204.1
85°	1410.5	2182.2	1840.7	2077.3	677.1	433.2	8.9	0.0
87.5°	158.2	252.9	232.2	183.4	82.8	17.7	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)