

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: P969491

Luminaire Tested: **NAV-SB5D-835-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969491
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-SB5D-835-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND SPILL LIGHT
ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37297.7 lumens
Efficiency: N/A
Efficacy: 102.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - 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



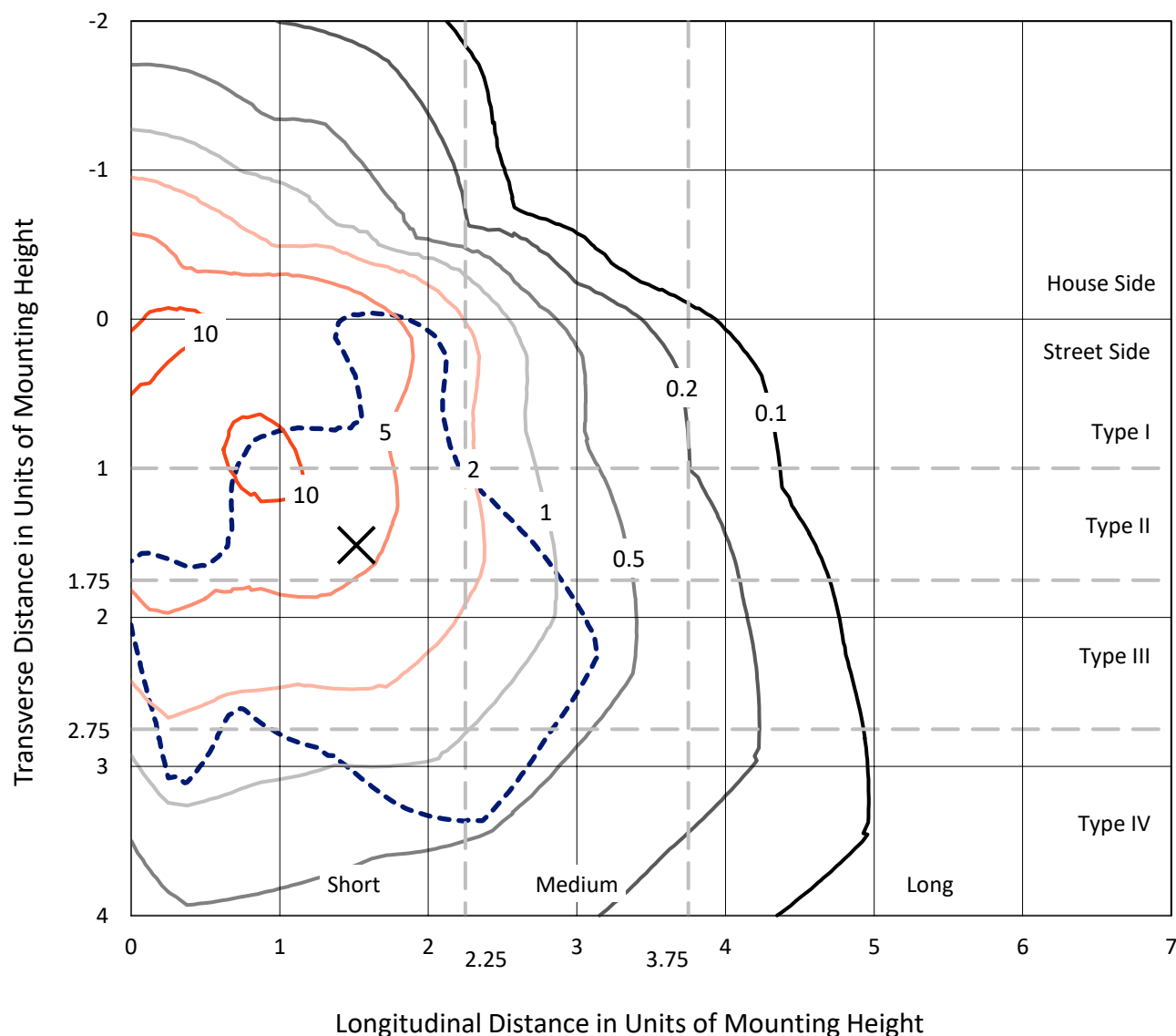
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

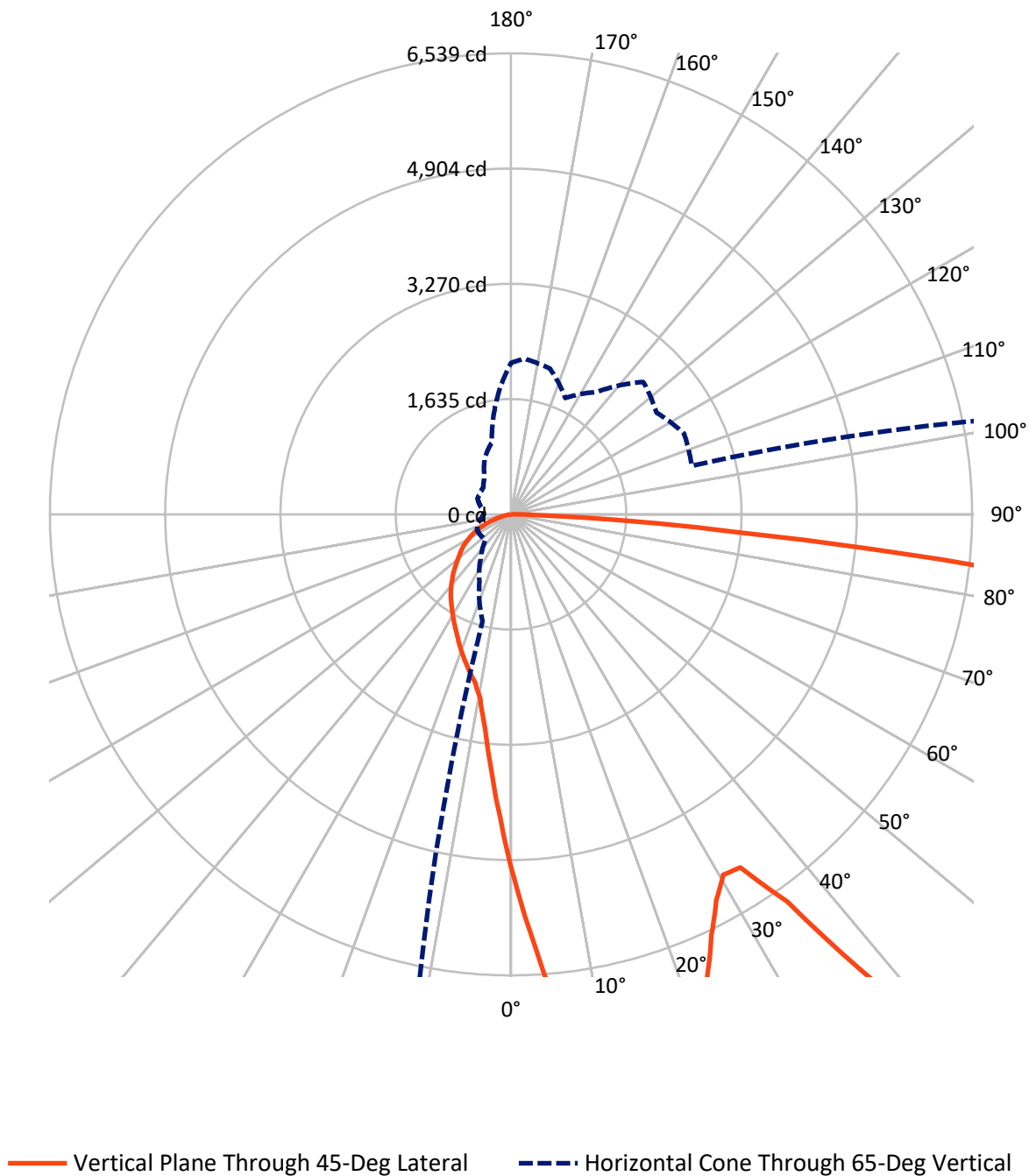


Based on 25 foot mounting height. Maximum calculated value = 13.6 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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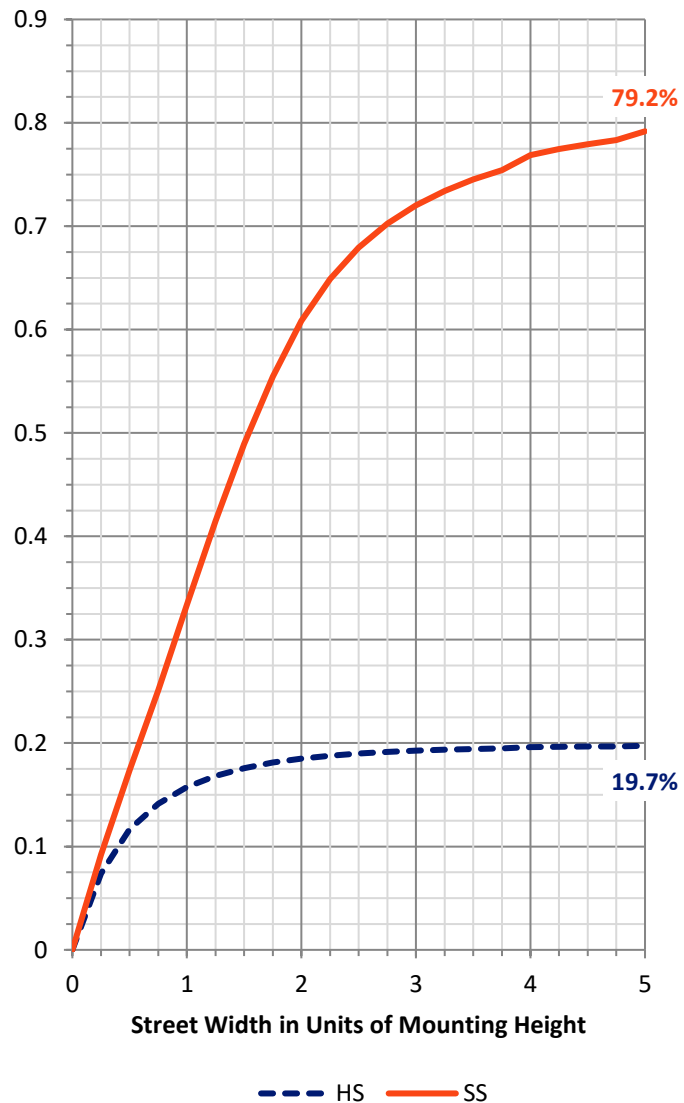
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7413.6	0.0	7413.6
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	29884.1	0.0	29884.1
	% Fixture	80.1	0.0	80.1
Total	Lumens	37297.7	0.0	37297.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	508.5	1.4
10°-20°	1524.2	4.1
20°-30°	2245.5	6.0
30°-40°	2884.9	7.7
40°-50°	4665.7	12.5
50°-60°	8181.7	21.9
60°-70°	10237.6	27.4
70°-80°	5982.3	16.0
80°-90°	1067.3	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°	37297.7	100.0
0°-180°	37297.7	100.0

Coefficient of Utilization



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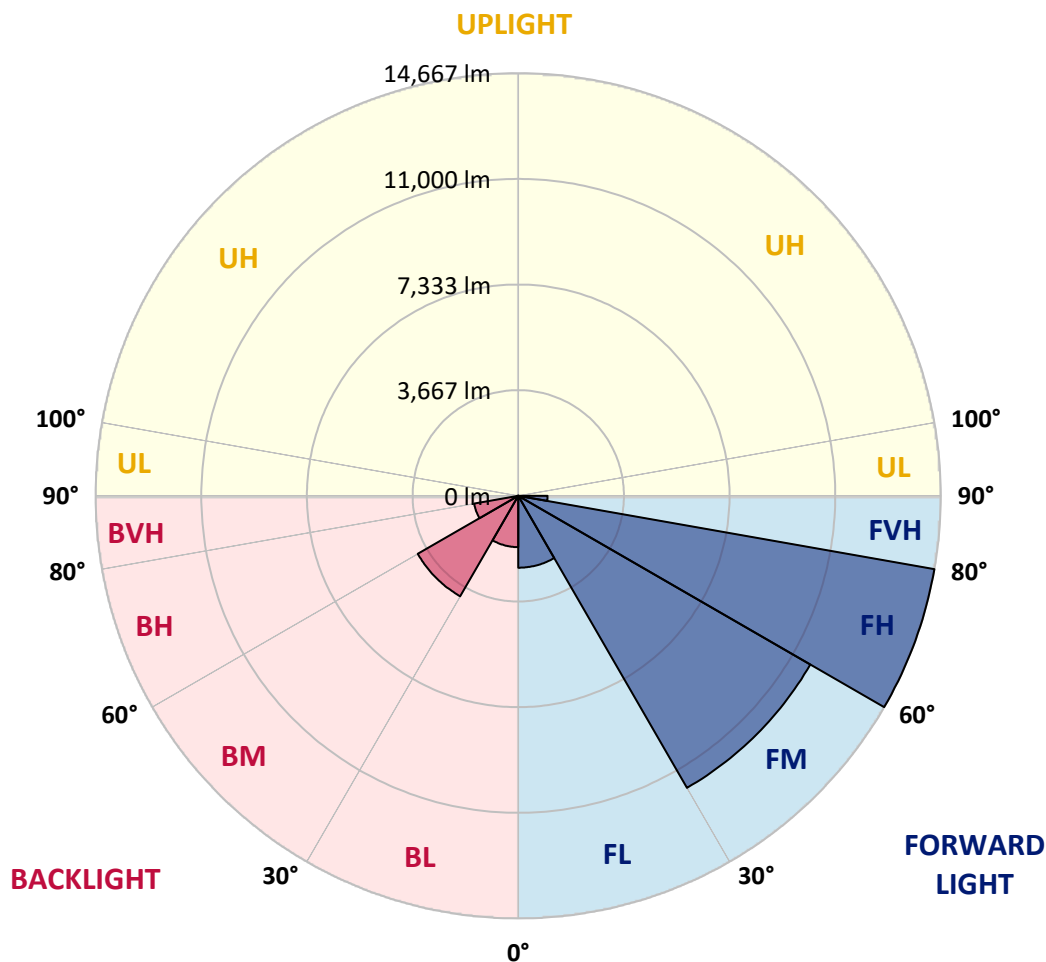
CATALOG NUMBER: NAV-SB5D-835-U-SLL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2495.7	6.7			
FM	(30°-60°)	11704.5	31.4			
FH	(60°-80°)	14666.6	39.3			G5
FVH	(80°-90°)	1017.3	2.7			G5
BL	(0°-30°)	1782.5	4.8	B3/2500		
BM	(30°-60°)	4027.8	10.8	B3/5000		
BH	(60°-80°)	1553.3	4.2	B3/2500		G3/2500
BVH	(80°-90°)	50.0	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5164.6	5164.6	5164.6	5164.6	5164.6	5164.6	5164.6	5164.6	5164.6	5164.6	5164.6
2.5°	5786.3	5830.0	5927.7	5979.0	6058.7	6063.8	6063.8	5994.5	5991.8	5850.6	5835.1
5°	6467.2	6570.0	6801.3	7040.2	7091.6	7104.5	7078.8	6940.0	6837.3	6562.3	6503.2
7.5°	7143.0	7340.8	7692.8	8011.5	8114.2	8114.2	8052.6	7826.5	7615.7	7217.5	7068.5
10°	7703.1	7952.4	8430.3	8787.4	8905.6	8879.9	8754.0	8468.9	8178.5	7695.4	7500.1
12.5°	8073.1	8353.2	8877.3	9165.1	9285.9	9219.1	9075.2	8797.7	8491.9	7983.2	7762.2
15°	8258.1	8551.1	9005.9	9157.5	9124.0	9054.6	9036.7	8903.0	8671.8	8196.4	7954.9
17.5°	8337.8	8610.1	8926.2	8831.1	8548.5	8494.5	8674.4	8843.9	8787.4	8381.4	8155.3
20°	8412.3	8641.0	8736.1	8314.7	7821.4	7772.5	8116.8	8599.9	8846.6	8553.6	8345.4
22.5°	8515.1	8656.4	8461.1	7769.9	7238.0	7125.0	7505.3	8232.4	8864.5	8772.1	8563.9
25°	8656.4	8695.0	8157.9	7253.5	6719.1	6606.0	6960.6	7823.9	8833.7	9008.4	8831.1
27.5°	8826.0	8746.3	7867.6	6821.8	6305.4	6200.0	6554.6	7430.7	8746.3	9244.8	9118.9
30°	9047.0	8813.2	7579.8	6487.8	6009.9	5932.8	6274.5	7091.6	8638.4	9545.4	9476.0
32.5°	9270.5	8841.3	7312.6	6292.5	5943.1	5971.3	6251.4	6909.2	8520.2	9833.1	9866.5
35°	9512.0	8931.3	7181.6	6485.2	6500.7	6747.3	6862.9	7078.8	8502.2	10223.8	10354.8
37.5°	9840.9	9131.7	7338.3	7443.7	7978.1	8489.4	8394.3	7908.7	8710.3	10807.0	11051.0
40°	10313.7	9483.7	8021.8	9075.2	10172.3	11002.2	10640.0	9417.0	9347.6	11647.2	12012.1
42.5°	11002.2	10043.9	9234.5	11069.1	12929.3	14296.3	13325.0	11362.0	10462.7	12847.1	13312.2
45°	12019.8	10950.9	10701.6	13173.4	16328.7	18481.9	16462.3	13435.5	12024.9	14663.6	15028.6
47.5°	13430.4	12284.4	12076.2	15390.9	20460.3	23245.6	19941.3	15357.5	13803.0	17140.6	17225.4
50°	15303.5	14080.4	13379.0	17816.3	24990.2	28101.8	23417.7	17212.5	15840.5	20167.4	20069.7
52.5°	17775.2	16585.6	14897.6	20126.3	29648.5	32855.2	26909.5	18841.6	18368.8	23679.8	23479.4
55°	21146.4	20355.0	16973.6	22330.9	34304.4	37636.9	30265.2	20378.1	21709.1	27852.5	26639.7
57.5°	25329.4	25894.7	19967.0	24887.4	38490.0	42565.1	33636.3	22526.1	26046.3	32518.6	28474.3
60°	28027.3	33261.1	25699.3	28667.0	43246.0	48138.1	38256.1	26611.5	30604.3	34191.3	28124.9
62.5°	27374.6	35604.5	32564.9	33492.4	47619.1	52190.1	42783.4	30714.8	31462.6	31727.2	25432.1
65°	25373.1	33713.4	31164.5	34430.3	48726.6	52418.8	43993.6	30185.5	26688.5	25902.4	20442.3
67.5°	22618.6	31470.3	27837.2	31943.1	46724.9	49222.4	41740.3	26701.5	20624.7	19437.7	14830.7
70°	19645.8	28988.2	25653.1	29152.6	42909.4	43651.9	37909.2	23484.5	15169.9	13127.2	9517.1
72.5°	16824.6	26403.4	24157.7	26292.9	37819.3	36282.8	32922.0	20640.1	11045.9	9468.3	6765.3
75°	13939.1	22590.4	22027.7	22896.1	31126.0	28579.7	27354.1	17089.2	8669.2	6850.1	4668.7
77.5°	10755.6	17651.9	18946.9	18335.4	21909.5	21228.6	21202.8	12842.0	6333.6	4571.0	2926.6
80°	7361.3	12302.4	14802.4	12934.5	14219.2	13872.4	15969.0	8615.2	4594.2	2751.8	1629.0
82.5°	4326.9	7489.9	10303.4	6261.7	7862.5	8070.5	9509.4	4190.7	2703.0	634.7	354.5
85°	1754.9	2957.4	4028.9	2451.2	3792.5	3198.9	3610.0	1176.8	752.9	15.4	0.0
87.5°	442.0	945.6	662.9	274.9	439.4	403.4	318.6	143.9	30.9	0.0	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

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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	5164.6	5164.6	5164.6	5164.6	5164.6	5164.6	5164.6	5164.6	5164.6	5164.6	5164.6
2.5°	5735.0	5675.8	5529.4	5382.9	5264.7	5105.4	5000.1	4874.2	4753.4	4645.5	4625.0
5°	6341.4	6146.1	5878.9	5634.7	5385.6	5144.0	4905.0	4653.2	4422.0	4280.7	4190.7
7.5°	6834.7	6490.4	6135.8	5824.9	5524.2	5241.6	4925.5	4619.8	4257.5	4064.8	3890.1
10°	7202.1	6749.8	6284.8	5927.7	5624.5	5349.6	5082.4	4773.9	4337.2	4095.7	3833.6
12.5°	7443.7	6906.7	6361.9	5953.3	5614.2	5400.9	5282.7	5162.0	4727.7	4445.1	4064.8
15°	7610.6	7017.0	6415.9	5894.3	5478.0	5321.3	5439.5	5578.3	5300.7	4974.4	4478.5
17.5°	7793.1	7161.0	6438.9	5735.0	5213.4	5146.5	5452.3	5773.5	5760.6	5436.9	4951.3
20°	7985.8	7286.9	6423.6	5478.0	4892.2	4951.3	5341.8	5714.4	5871.1	5696.4	5264.7
22.5°	8183.6	7407.7	6364.4	5144.0	4591.6	4776.6	5167.1	5493.4	5678.4	5624.5	5295.6
25°	8432.9	7577.2	6277.1	4784.3	4342.3	4599.3	4964.1	5228.7	5357.3	5354.7	5128.6
27.5°	8730.8	7803.3	6230.9	4493.9	4165.0	4398.9	4722.6	4959.0	5048.9	5048.9	4869.1
30°	9077.8	8070.5	6179.4	4303.8	4062.3	4190.7	4442.6	4673.8	4763.7	4763.7	4612.1
32.5°	9463.2	8327.5	6056.1	4188.2	3985.2	3987.8	4147.0	4357.8	4465.6	4481.1	4373.2
35°	9925.7	8602.4	5786.3	4095.7	3895.2	3789.9	3867.0	4041.7	4170.2	4203.5	4136.8
37.5°	10532.1	8939.0	5400.9	3959.5	3756.5	3581.8	3599.8	3733.4	3874.7	3926.1	3882.4
40°	11346.5	9334.7	5000.1	3764.2	3561.3	3353.1	3345.4	3443.0	3581.8	3638.3	3615.2
42.5°	12423.2	9810.1	4617.2	3576.6	3324.8	3111.6	3098.7	3175.8	3296.6	3355.6	3345.4
45°	13800.4	10393.3	4288.4	3430.2	3093.6	2882.9	2877.8	2942.0	3047.3	3109.0	3096.1
47.5°	15714.6	10976.5	4064.8	3353.1	2911.2	2695.3	2705.6	2762.2	2857.2	2900.9	2882.9
50°	18209.5	11153.8	3951.8	3353.1	2813.5	2528.3	2579.7	2625.9	2697.9	2723.6	2700.5
52.5°	20604.2	10568.1	3849.0	3373.7	2826.3	2387.0	2497.5	2530.9	2592.5	2602.8	2569.5
55°	21778.4	9085.5	3707.6	3378.8	2906.0	2266.3	2430.7	2492.4	2515.5	2512.9	2456.4
57.5°	21375.0	7346.0	3468.7	3358.2	2960.0	2189.2	2348.5	2466.7	2482.0	2459.0	2353.6
60°	19959.3	5408.6	3286.3	3206.6	2939.4	2166.0	2222.5	2410.1	2433.2	2402.4	2230.3
62.5°	17585.1	3754.0	3145.0	2872.6	2849.5	2158.3	2024.7	2286.8	2343.4	2299.6	2047.8
65°	13844.1	2651.7	2708.2	2518.0	2654.2	2117.2	1819.2	2137.7	2214.8	2148.0	1793.4
67.5°	9368.1	1914.2	2194.3	2281.6	2338.1	2024.7	1670.1	1968.2	2070.9	1983.6	1497.9
70°	5059.2	1343.8	1449.1	1922.0	1986.1	1865.4	1536.5	1796.0	1914.2	1819.2	1220.5
72.5°	2988.3	966.1	1015.0	1544.3	1654.7	1641.8	1387.4	1595.6	1739.5	1626.5	991.8
75°	1647.0	652.6	724.6	1120.2	1343.8	1266.7	1192.2	1351.6	1497.9	1387.4	765.7
77.5°	737.4	390.5	503.6	734.8	1056.1	868.5	922.4	1053.5	1189.6	1074.0	511.3
80°	285.2	218.4	334.0	400.9	768.2	480.5	593.6	775.9	873.6	781.2	310.9
82.5°	36.0	97.7	143.9	156.7	447.1	254.4	344.3	488.2	480.5	416.3	156.7
85°	0.0	17.9	20.6	10.2	192.7	92.5	113.1	159.3	149.0	113.1	12.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	0.0	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

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CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	5164.6	5164.6	5164.6	5164.6	5164.6	5164.6	5164.6	5164.6	5164.6	5164.6	5164.6
2.5°	4499.0	4406.6	4360.3	4321.8	4357.8	4378.3	4378.3	4465.6	4517.1	4537.6	4681.5
5°	3964.6	3792.5	3676.9	3607.5	3630.6	3656.3	3684.6	3795.1	3869.6	3918.4	4141.9
7.5°	3543.2	3281.1	3119.3	3034.5	3047.3	3065.4	3088.4	3196.4	3270.9	3335.1	3584.3
10°	3335.1	2965.1	2751.8	2649.1	2631.1	2620.8	2613.1	2677.3	2733.9	2785.2	3032.0
12.5°	3345.4	2828.9	2569.5	2443.5	2389.6	2327.9	2279.1	2289.3	2325.3	2389.6	2546.3
15°	3476.4	2785.2	2474.4	2317.6	2227.7	2155.8	2096.6	2083.8	2096.6	2106.9	2204.6
17.5°	3653.7	2780.1	2392.1	2196.9	2104.3	2045.3	1991.3	1973.3	1975.9	1988.7	2014.4
20°	3795.1	2764.7	2299.6	2081.3	1999.1	1947.6	1893.7	1875.6	1880.8	1883.4	1911.6
22.5°	3869.6	2741.6	2196.9	1965.6	1896.2	1844.8	1796.0	1793.4	1793.4	1808.9	1829.4
25°	3869.6	2692.8	2104.3	1855.1	1793.4	1747.2	1688.1	1698.4	1703.6	1724.0	1754.9
27.5°	3777.0	2600.2	2029.8	1760.0	1695.9	1649.5	1595.6	1608.4	1616.1	1639.3	1677.8
30°	3658.8	2489.7	1945.0	1670.1	1595.6	1562.2	1516.0	1521.1	1531.4	1557.1	1600.7
32.5°	3533.0	2358.7	1875.6	1580.2	1505.7	1480.0	1428.6	1436.3	1446.6	1474.9	1523.7
35°	3394.2	2204.6	1793.4	1497.9	1423.4	1402.9	1343.8	1348.9	1364.4	1395.2	1444.0
37.5°	3247.7	2078.7	1711.2	1418.3	1341.2	1320.7	1259.0	1264.1	1282.2	1318.1	1364.4
40°	3103.9	1955.3	1623.9	1333.5	1256.4	1238.5	1171.7	1176.8	1197.3	1235.8	1284.7
42.5°	2947.1	1860.3	1510.8	1246.2	1164.0	1145.9	1084.2	1092.0	1115.1	1153.6	1202.5
45°	2759.6	1798.6	1384.9	1164.0	1071.4	1053.5	996.9	1012.4	1038.0	1076.6	1128.0
47.5°	2566.8	1772.9	1279.6	1076.6	976.4	960.9	914.7	940.4	968.6	999.5	1056.1
50°	2381.9	1739.5	1171.7	994.4	894.2	878.7	847.9	881.3	909.6	937.9	991.8
52.5°	2171.2	1667.6	1074.0	922.4	824.8	819.7	804.2	835.1	860.8	886.4	932.7
55°	1952.7	1552.0	989.2	858.2	765.7	770.8	763.1	788.8	809.3	832.5	873.6
57.5°	1762.6	1405.5	922.4	788.8	714.3	729.7	719.4	732.3	745.2	773.4	806.8
60°	1569.9	1230.7	847.9	706.6	662.9	680.9	652.6	650.1	655.2	662.9	724.6
62.5°	1310.4	1048.4	755.4	634.7	606.4	614.1	560.2	519.1	519.1	526.7	619.2
65°	1053.5	878.7	652.6	552.5	529.3	524.2	447.1	390.5	385.4	408.6	488.2
67.5°	865.9	729.7	549.8	459.9	444.5	449.7	393.1	336.6	331.5	357.1	416.3
70°	716.9	588.3	439.4	354.5	370.0	393.1	336.6	282.6	274.9	298.1	354.5
72.5°	570.4	459.9	336.6	262.1	305.8	334.0	274.9	223.6	218.4	238.9	292.9
75°	418.8	328.9	228.7	190.1	236.4	262.1	200.4	159.3	151.6	169.5	223.6
77.5°	259.5	185.0	143.9	113.1	161.8	174.8	105.4	92.5	89.9	102.8	141.3
80°	120.7	79.6	69.4	38.5	59.1	69.4	43.7	48.8	51.4	61.7	87.3
82.5°	33.4	12.8	2.6	0.0	0.0	20.6	10.2	20.6	25.7	38.5	56.5
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	12.8	23.2	41.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2	20.6
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: P969491

CATALOG NUMBER: NAV-SB5D-835-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	5164.6	5164.6	5164.6	5164.6	5164.6	5164.6	5164.6	5164.6
2.5°	4789.4	4892.2	5056.6	5226.2	5393.2	5562.8	5727.3	5786.3
5°	4344.9	4581.2	4907.6	5257.0	5616.8	5981.6	6315.6	6467.2
7.5°	3849.0	4188.2	4678.9	5226.2	5799.1	6372.1	6898.9	7143.0
10°	3319.7	3748.8	4308.9	5048.9	5871.1	6662.5	7387.1	7703.1
12.5°	2816.1	3265.8	3885.0	4771.4	5814.6	6829.5	7700.5	8073.1
15°	2394.7	2792.9	3461.0	4442.6	5632.2	6839.8	7849.6	8258.1
17.5°	2078.7	2338.1	3029.4	4077.7	5393.2	6744.7	7901.0	8337.8
20°	1922.0	1993.8	2469.2	3610.0	5169.7	6654.8	7952.4	8412.3
22.5°	1829.4	1847.5	2019.6	3006.2	4902.5	6626.5	8042.3	8515.1
25°	1754.9	1760.0	1806.3	2381.9	4493.9	6608.6	8181.0	8656.4
27.5°	1680.4	1680.4	1706.1	1919.3	3939.0	6531.5	8360.9	8826.0
30°	1605.9	1605.9	1623.9	1698.4	3288.8	6379.9	8576.7	9047.0
32.5°	1528.8	1528.8	1544.3	1598.2	2625.9	6189.8	8774.6	9270.5
35°	1451.7	1446.6	1467.2	1523.7	2089.0	5948.2	8972.4	9512.0
37.5°	1369.5	1366.9	1387.4	1451.7	1803.7	5668.1	9121.5	9840.9
40°	1282.2	1282.2	1305.2	1374.6	1721.5	5316.2	9357.8	10313.7
42.5°	1202.5	1197.3	1223.0	1307.8	1659.9	4979.6	9781.8	11002.2
45°	1125.4	1115.1	1138.3	1243.6	1552.0	4861.4	10573.2	12019.8
47.5°	1053.5	1027.8	1048.4	1166.6	1454.3	5303.2	11868.2	13430.4
50°	994.4	945.6	963.5	1089.5	1379.8	6261.7	13548.6	15303.5
52.5°	932.7	868.5	878.7	994.4	1313.0	7173.9	15370.3	17775.2
55°	868.5	796.5	801.7	899.3	1217.9	7310.0	17148.4	21146.4
57.5°	796.5	729.7	729.7	811.9	1148.5	6336.2	18515.3	25329.4
60°	716.9	673.2	660.3	742.6	1210.2	4470.8	18674.6	28027.3
62.5°	629.6	606.4	588.3	675.8	1256.4	2649.1	17392.4	27374.6
65°	529.3	524.2	511.3	742.6	1058.6	1564.8	14930.9	25373.1
67.5°	444.5	436.8	436.8	778.5	804.2	984.1	11665.2	22618.6
70°	382.8	354.5	354.5	588.3	488.2	680.9	8145.1	19645.8
72.5°	321.1	290.4	269.8	470.2	364.9	498.5	5090.0	16824.6
75°	257.0	233.8	208.1	310.9	272.3	377.7	2957.4	13939.1
77.5°	185.0	174.8	146.5	228.7	197.8	272.3	1760.0	10755.6
80°	95.0	97.7	92.5	131.0	133.7	185.0	1002.0	7361.3
82.5°	56.5	43.7	48.8	64.3	77.1	105.4	377.7	4326.9
85°	36.0	23.2	23.2	30.9	38.5	41.1	115.6	1754.9
87.5°	17.9	7.7	10.2	15.4	12.8	10.2	5.1	442.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)