

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: P965120

Luminaire Tested: **NAV-SB3D-740-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965120
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-740-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 4000K, 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: 25268.3 lumens
Efficiency: N/A
Efficacy: 115.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - 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



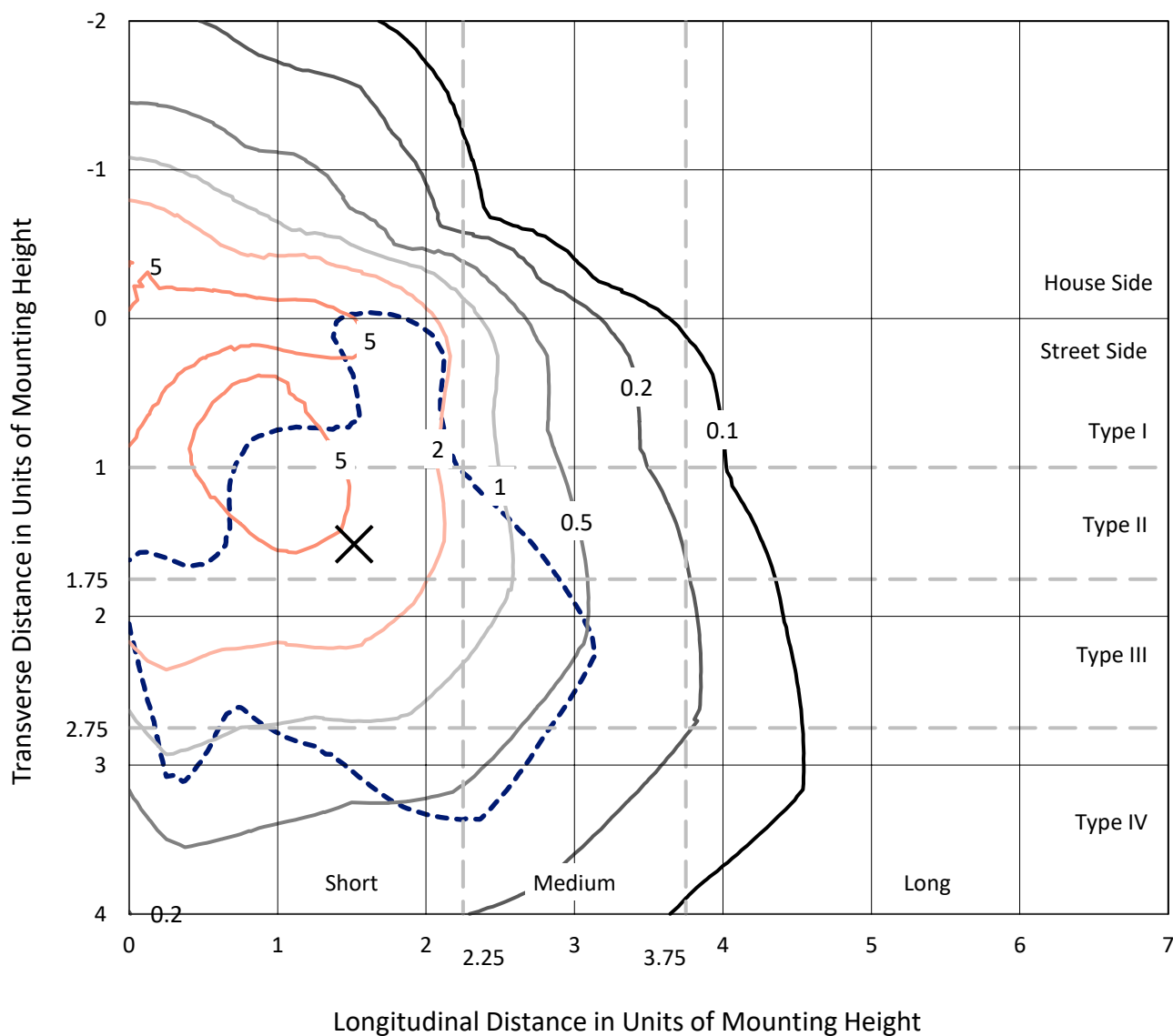
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

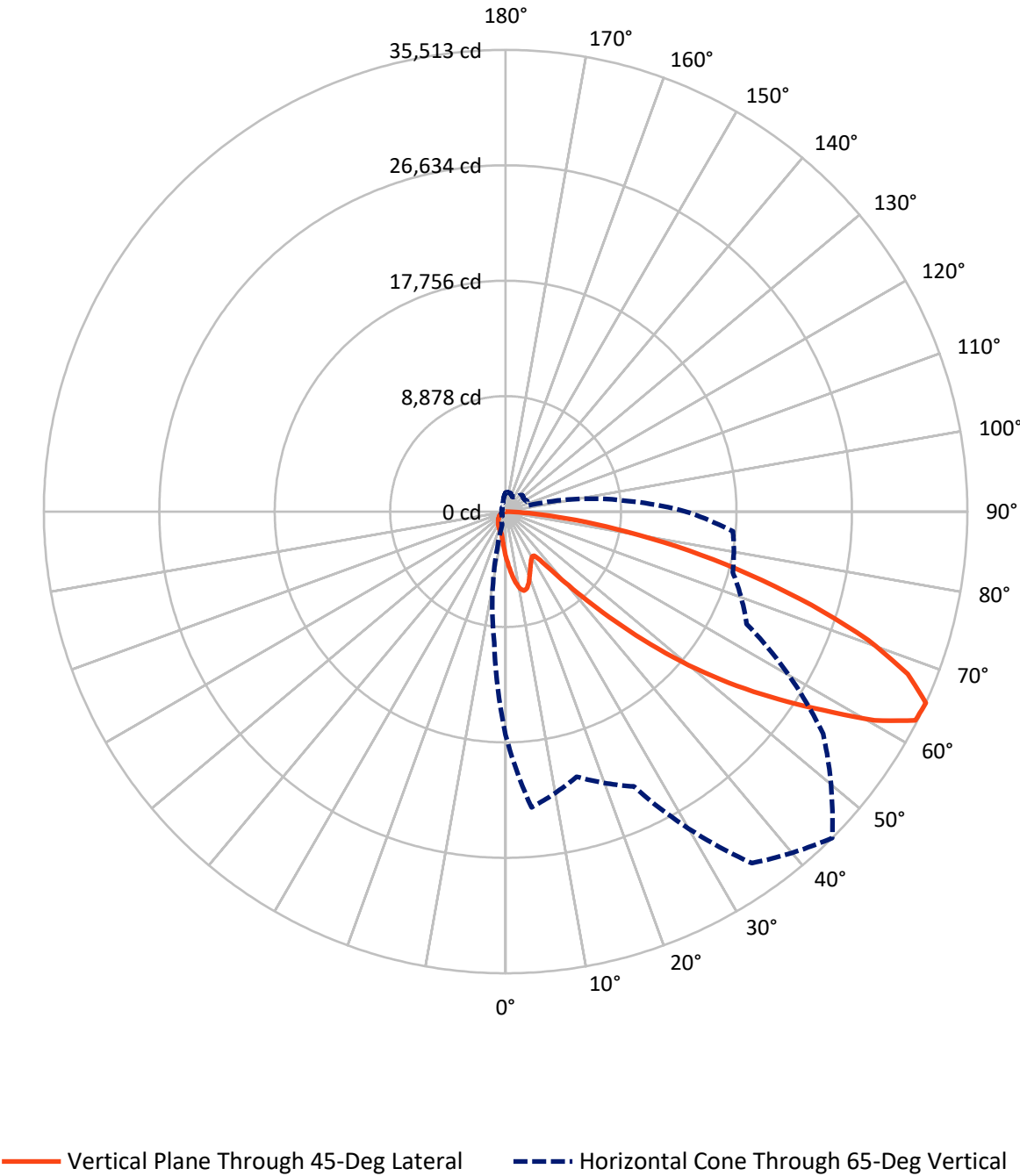


Based on 25 foot mounting height. Maximum calculated value = 9.2 fc

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	5022.6	0.0	5022.6
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	20245.7	0.0	20245.7
	% Fixture	80.1	0.0	80.1
Total	Lumens	25268.3	0.0	25268.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	344.5	1.4
10°-20°	1032.6	4.1
20°-30°	1521.3	6.0
30°-40°	1954.4	7.7
40°-50°	3160.9	12.5
50°-60°	5542.9	21.9
60°-70°	6935.7	27.4
70°-80°	4052.9	16.0
80°-90°	723.1	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°	25268.3	100.0
0°-180°	25268.3	100.0

Coefficient of Utilization



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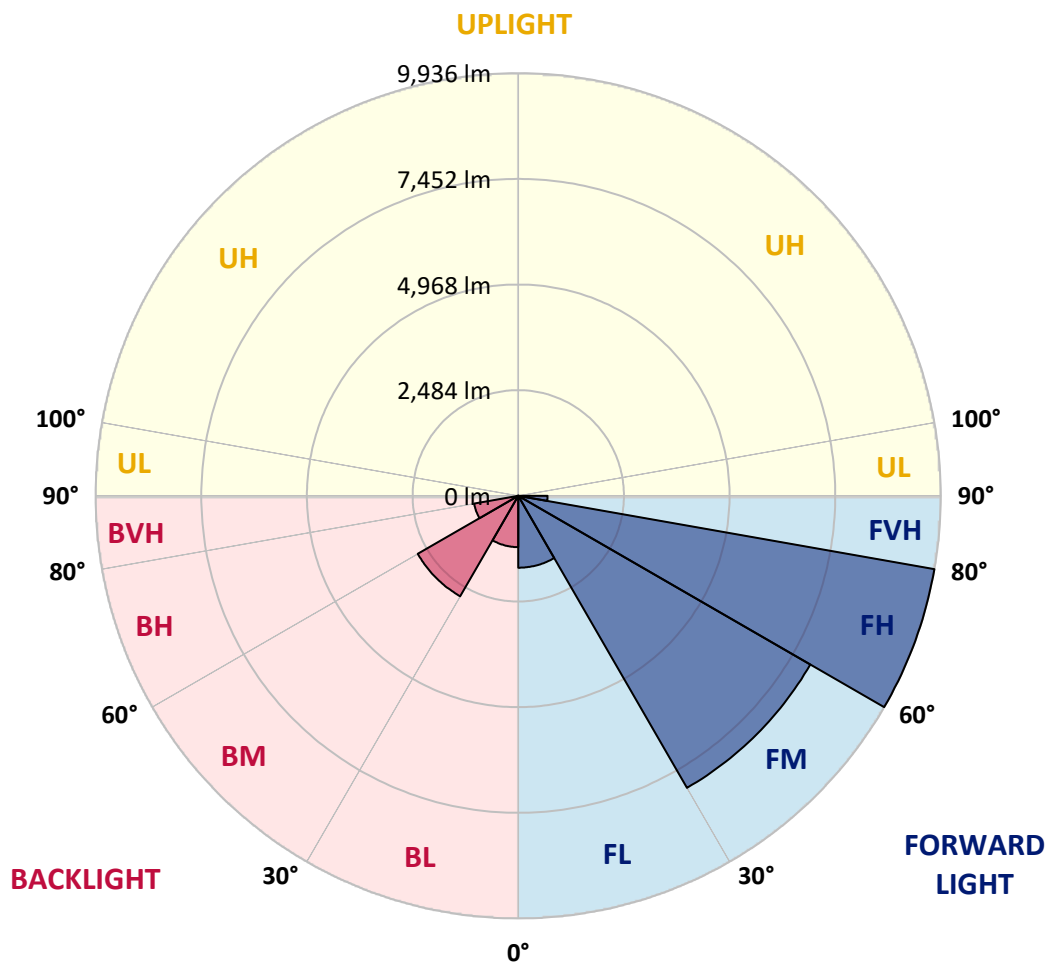
CATALOG NUMBER: NAV-SB3D-740-U-SLL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1690.7	6.7			
FM	(30°-60°)	7929.5	31.4			
FH	(60°-80°)	9936.3	39.3			G4/12000
FVH	(80°-90°)	689.2	2.7			G4/750
BL	(0°-30°)	1207.6	4.8	B3/2500		
BM	(30°-60°)	2728.7	10.8	B3/5000		
BH	(60°-80°)	1052.3	4.2	B3/2500		G3/2500
BVH	(80°-90°)	33.9	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-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8
2.5°	3920.1	3949.7	4015.8	4050.7	4104.6	4108.1	4108.1	4061.2	4059.4	3963.7	3953.2
5°	4381.4	4451.1	4607.7	4769.5	4804.4	4813.1	4795.7	4701.7	4632.1	4445.8	4405.8
7.5°	4839.2	4973.2	5211.7	5427.6	5497.2	5497.2	5455.5	5302.2	5159.5	4889.7	4788.7
10°	5218.7	5387.5	5711.3	5953.3	6033.4	6015.9	5930.6	5737.4	5540.7	5213.5	5081.1
12.5°	5469.3	5659.1	6014.2	6209.1	6290.9	6245.7	6148.3	5960.3	5753.1	5408.4	5258.8
15°	5594.7	5793.1	6101.2	6203.9	6181.3	6134.3	6122.1	6031.6	5874.9	5552.9	5389.2
17.5°	5648.7	5833.2	6047.3	5982.8	5791.4	5754.9	5876.6	5991.5	5953.3	5678.2	5525.1
20°	5699.1	5854.1	5918.5	5633.0	5298.7	5265.7	5498.9	5826.2	5993.3	5794.8	5653.9
22.5°	5768.8	5864.5	5732.2	5264.0	4903.6	4827.0	5084.6	5577.2	6005.5	5942.8	5801.8
25°	5864.5	5890.6	5526.8	4914.1	4552.0	4475.4	4715.6	5300.5	5984.6	6103.0	5982.8
27.5°	5979.3	5925.4	5330.1	4621.6	4271.7	4200.3	4440.6	5034.2	5925.4	6263.2	6177.8
30°	6129.1	5970.6	5135.1	4395.3	4071.5	4019.3	4250.9	4804.4	5852.3	6466.8	6419.8
32.5°	6280.5	5989.8	4954.1	4263.1	4026.3	4045.5	4235.2	4680.8	5772.2	6661.8	6684.3
35°	6444.2	6050.8	4865.4	4393.6	4404.0	4571.1	4649.5	4795.7	5760.1	6926.3	7015.1
37.5°	6667.0	6186.5	4971.5	5042.9	5404.9	5751.4	5686.9	5358.0	5901.0	7321.5	7486.8
40°	6987.2	6425.0	5434.5	6148.3	6891.5	7453.8	7208.3	6379.7	6332.8	7890.7	8137.9
42.5°	7453.8	6804.5	6256.2	7499.0	8759.3	9685.3	9027.4	7697.4	7088.2	8703.6	9018.7
45°	8143.1	7418.9	7250.1	8924.7	11062.3	12521.0	11152.8	9102.2	8146.6	9934.3	10181.5
47.5°	9098.7	8322.4	8181.3	10426.9	13861.4	15748.3	13509.7	10404.3	9351.2	11612.3	11669.8
50°	10367.8	9539.2	9064.0	12070.2	16930.2	19038.2	15865.0	11661.1	10731.5	13662.9	13596.8
52.5°	12042.3	11236.4	10092.7	13635.1	20086.2	22258.6	18230.5	12764.7	12444.4	16042.5	15906.7
55°	14326.1	13790.0	11499.2	15128.6	23240.3	25498.1	20504.0	13805.6	14707.3	18869.4	18047.8
57.5°	17160.0	17543.0	13527.1	16860.6	26076.0	28836.8	22787.8	15260.9	17645.7	22030.5	19290.7
60°	18987.8	22533.6	17410.6	19421.2	29298.1	32612.4	25917.6	18028.6	20733.7	23163.8	19053.9
62.5°	18545.6	24121.2	22061.9	22690.3	32260.8	35357.6	28984.7	20808.6	21315.2	21494.5	17229.6
65°	17189.7	22840.0	21113.3	23325.7	33011.0	35512.5	29804.6	20450.0	18080.9	17548.2	13849.2
67.5°	15323.5	21320.4	18859.0	21640.6	31655.1	33347.0	28278.0	18089.6	13972.8	13168.6	10047.5
70°	13309.5	19638.8	17379.4	19750.2	29070.0	29573.1	25682.6	15910.2	10277.3	8893.3	6447.7
72.5°	11398.2	17887.7	16366.3	17812.8	25621.7	24580.7	22303.9	13983.3	7483.3	6414.6	4583.3
75°	9443.4	15304.4	14923.2	15511.5	21087.1	19362.0	18531.7	11577.6	5873.1	4640.8	3162.8
77.5°	7286.6	11958.8	12836.1	12421.8	14843.1	14381.9	14364.5	8700.1	4290.9	3096.7	1982.7
80°	4987.1	8334.6	10028.3	8762.8	9633.2	9398.1	10818.6	5836.7	3112.4	1864.3	1103.6
82.5°	2931.4	5074.2	6980.2	4242.2	5326.6	5467.7	6442.4	2839.1	1831.3	430.0	240.3
85°	1188.9	2003.6	2729.5	1660.6	2569.3	2167.2	2445.8	797.2	510.0	10.5	0.0
87.5°	299.4	640.6	449.2	186.2	297.7	273.3	215.9	97.5	20.9	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°	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8
2.5°	3885.3	3845.3	3746.1	3646.8	3566.7	3458.9	3387.4	3302.1	3220.3	3147.3	3133.3
5°	4296.1	4163.9	3982.7	3817.4	3648.6	3484.9	3323.0	3152.5	2995.8	2900.0	2839.1
7.5°	4630.3	4397.0	4156.9	3946.2	3742.6	3551.1	3337.0	3129.8	2884.4	2753.9	2635.5
10°	4879.2	4572.8	4257.8	4015.8	3810.4	3624.2	3443.2	3234.3	2938.4	2774.7	2597.1
12.5°	5042.9	4679.0	4310.0	4033.3	3803.5	3659.0	3578.9	3497.1	3202.9	3011.4	2753.9
15°	5156.1	4754.0	4346.6	3993.2	3711.2	3605.0	3685.1	3779.1	3591.1	3370.0	3034.1
17.5°	5279.6	4851.4	4362.3	3885.3	3531.9	3486.6	3693.8	3911.4	3902.7	3683.3	3354.4
20°	5410.2	4936.7	4351.8	3711.2	3314.3	3354.4	3619.0	3871.3	3977.5	3859.2	3566.7
22.5°	5544.2	5018.5	4311.8	3484.9	3110.7	3236.0	3500.6	3721.7	3847.0	3810.4	3587.6
25°	5713.0	5133.4	4252.6	3241.3	2941.9	3115.9	3363.0	3542.4	3629.4	3627.7	3474.4
27.5°	5915.0	5286.5	4221.3	3044.6	2821.7	2980.1	3199.4	3359.6	3420.5	3420.5	3298.7
30°	6150.0	5467.7	4186.4	2915.7	2752.1	2839.1	3009.7	3166.3	3227.3	3227.3	3124.6
32.5°	6411.1	5641.7	4102.9	2837.4	2699.8	2701.6	2809.5	2952.3	3025.4	3035.8	2962.7
35°	6724.4	5827.9	3920.1	2774.7	2639.0	2567.5	2619.8	2738.2	2825.2	2847.9	2802.6
37.5°	7135.2	6056.0	3659.0	2682.4	2545.0	2426.6	2438.8	2529.3	2625.0	2659.8	2630.3
40°	7687.0	6324.0	3387.4	2550.2	2412.6	2271.6	2266.4	2332.6	2426.6	2464.8	2449.2
42.5°	8416.4	6646.1	3128.1	2423.1	2252.5	2108.0	2099.3	2151.6	2233.4	2273.3	2266.4
45°	9349.4	7041.2	2905.3	2323.9	2095.8	1953.1	1949.7	1993.1	2064.5	2106.3	2097.6
47.5°	10646.3	7436.4	2753.9	2271.6	1972.2	1826.0	1833.0	1871.2	1935.7	1965.2	1953.1
50°	12336.5	7556.5	2677.2	2271.6	1906.1	1712.9	1747.7	1779.0	1827.8	1845.2	1829.5
52.5°	13958.9	7159.6	2607.6	2285.5	1914.8	1617.1	1692.0	1714.6	1756.3	1763.3	1740.8
55°	14754.4	6155.2	2511.9	2289.0	1968.7	1535.3	1646.8	1688.5	1704.2	1702.4	1664.1
57.5°	14481.1	4976.7	2350.0	2275.1	2005.3	1483.1	1591.0	1671.1	1681.5	1665.8	1594.5
60°	13521.9	3664.2	2226.4	2172.4	1991.4	1467.4	1505.7	1632.8	1648.5	1627.6	1511.0
62.5°	11913.5	2543.2	2130.7	1946.2	1930.5	1462.2	1371.7	1549.3	1587.5	1557.9	1387.3
65°	9379.1	1796.4	1834.7	1705.9	1798.2	1434.4	1232.5	1448.3	1500.5	1455.2	1215.0
67.5°	6346.7	1296.8	1486.6	1545.8	1584.0	1371.7	1131.5	1333.4	1403.0	1343.9	1014.9
70°	3427.5	910.4	981.7	1302.1	1345.6	1263.7	1041.0	1216.8	1296.8	1232.5	826.9
72.5°	2024.5	654.5	687.6	1046.2	1121.0	1112.3	940.0	1081.0	1178.4	1101.9	671.9
75°	1115.8	442.2	490.9	758.9	910.4	858.1	807.7	915.6	1014.9	940.0	518.8
77.5°	499.6	264.6	341.2	497.8	715.4	588.3	624.9	713.7	806.0	727.6	346.4
80°	193.2	148.0	226.3	271.5	520.5	325.5	402.1	525.7	591.8	529.2	210.6
82.5°	24.4	66.1	97.5	106.2	302.9	172.3	233.3	330.8	325.5	282.0	106.2
85°	0.0	12.2	13.9	7.0	130.6	62.6	76.6	107.9	101.0	76.6	8.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	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°	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8
2.5°	3048.0	2985.3	2954.0	2927.9	2952.3	2966.1	2966.1	3025.4	3060.2	3074.1	3171.6
5°	2685.9	2569.3	2491.0	2444.0	2459.6	2477.0	2496.2	2571.0	2621.5	2654.6	2806.0
7.5°	2400.4	2222.9	2113.2	2055.8	2064.5	2076.6	2092.3	2165.4	2215.9	2259.4	2428.3
10°	2259.4	2008.8	1864.3	1794.7	1782.5	1775.5	1770.3	1813.8	1852.2	1886.9	2054.1
12.5°	2266.4	1916.5	1740.8	1655.5	1618.9	1577.1	1544.1	1551.0	1575.3	1618.9	1725.1
15°	2355.2	1886.9	1676.3	1570.1	1509.2	1460.4	1420.4	1411.7	1420.4	1427.4	1493.5
17.5°	2475.3	1883.4	1620.6	1488.3	1425.7	1385.6	1349.1	1336.9	1338.6	1347.4	1364.7
20°	2571.0	1873.0	1557.9	1410.0	1354.3	1319.5	1282.9	1270.7	1274.2	1275.9	1295.1
22.5°	2621.5	1857.3	1488.3	1331.7	1284.6	1249.9	1216.8	1215.0	1215.0	1225.5	1239.4
25°	2621.5	1824.3	1425.7	1256.8	1215.0	1183.7	1143.7	1150.7	1154.0	1168.0	1188.9
27.5°	2558.8	1761.6	1375.1	1192.4	1148.9	1117.6	1081.0	1089.7	1094.9	1110.6	1136.7
30°	2478.8	1686.7	1317.7	1131.5	1081.0	1058.3	1027.0	1030.5	1037.5	1054.8	1084.4
32.5°	2393.5	1598.0	1270.7	1070.5	1020.1	1002.7	967.8	973.0	980.0	999.2	1032.3
35°	2299.5	1493.5	1215.0	1014.9	964.3	950.5	910.4	913.9	924.3	945.3	978.3
37.5°	2200.3	1408.2	1159.3	960.8	908.7	894.7	852.9	856.4	868.6	893.0	924.3
40°	2102.8	1324.7	1100.1	903.4	851.3	839.1	793.8	797.2	811.2	837.3	870.3
42.5°	1996.6	1260.2	1023.6	844.3	788.5	776.3	734.6	739.8	755.4	781.6	814.7
45°	1869.5	1218.5	938.3	788.5	725.9	713.7	675.4	685.8	703.3	729.4	764.1
47.5°	1739.0	1201.1	866.8	729.4	661.4	651.1	619.7	637.1	656.2	677.1	715.4
50°	1613.7	1178.4	793.8	673.6	605.8	595.3	574.4	597.1	616.2	635.4	671.9
52.5°	1470.9	1129.8	727.6	624.9	558.7	555.2	544.9	565.7	583.1	600.5	631.9
55°	1323.0	1051.4	670.1	581.4	518.8	522.2	517.0	534.4	548.4	564.0	591.8
57.5°	1194.1	952.2	624.9	534.4	483.9	494.4	487.4	496.1	504.8	524.0	546.6
60°	1063.5	833.8	574.4	478.7	449.2	461.2	442.2	440.4	443.9	449.2	490.9
62.5°	887.8	710.2	511.8	430.0	410.8	416.0	379.5	351.6	351.6	356.8	419.5
65°	713.7	595.3	442.2	374.2	358.5	355.1	302.9	264.6	261.1	276.8	330.8
67.5°	586.6	494.4	372.5	311.6	301.1	304.6	266.3	228.1	224.6	242.0	282.0
70°	485.6	398.6	297.7	240.3	250.7	266.3	228.1	191.5	186.2	201.9	240.3
72.5°	386.4	311.6	228.1	177.5	207.2	226.3	186.2	151.4	148.0	161.8	198.4
75°	283.7	222.8	154.9	128.8	160.1	177.5	135.8	107.9	102.7	114.9	151.4
77.5°	175.8	125.4	97.5	76.6	109.7	118.4	71.3	62.6	60.9	69.6	95.7
80°	81.8	53.9	47.0	26.1	40.1	47.0	29.6	33.1	34.8	41.8	59.1
82.5°	22.7	8.7	1.7	0.0	0.0	13.9	7.0	13.9	17.4	26.1	38.3
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	8.7	15.7	27.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	13.9
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: P965120

CATALOG NUMBER: NAV-SB3D-740-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8
2.5°	3244.7	3314.3	3425.8	3540.7	3653.8	3768.6	3880.0	3920.1
5°	2943.6	3103.7	3324.8	3561.6	3805.2	4052.4	4278.7	4381.4
7.5°	2607.6	2837.4	3169.8	3540.7	3928.8	4317.0	4673.8	4839.2
10°	2249.1	2539.7	2919.2	3420.5	3977.5	4513.7	5004.6	5218.7
12.5°	1907.8	2212.5	2632.0	3232.5	3939.3	4626.8	5216.9	5469.3
15°	1622.4	1892.2	2344.8	3009.7	3815.7	4633.8	5317.9	5594.7
17.5°	1408.2	1584.0	2052.4	2762.5	3653.8	4569.3	5352.8	5648.7
20°	1302.1	1350.8	1672.8	2445.8	3502.3	4508.5	5387.5	5699.1
22.5°	1239.4	1251.6	1368.2	2036.7	3321.3	4489.3	5448.5	5768.8
25°	1188.9	1192.4	1223.7	1613.7	3044.6	4477.1	5542.5	5864.5
27.5°	1138.5	1138.5	1155.8	1300.3	2668.5	4424.9	5664.4	5979.3
30°	1087.9	1087.9	1100.1	1150.7	2228.1	4322.2	5810.5	6129.1
32.5°	1035.8	1035.8	1046.2	1082.7	1779.0	4193.4	5944.6	6280.5
35°	983.5	980.0	993.9	1032.3	1415.2	4029.8	6078.6	6444.2
37.5°	927.8	926.1	940.0	983.5	1222.0	3840.1	6179.5	6667.0
40°	868.6	868.6	884.3	931.3	1166.2	3601.5	6339.7	6987.2
42.5°	814.7	811.2	828.6	886.0	1124.5	3373.5	6626.9	7453.8
45°	762.4	755.4	771.1	842.6	1051.4	3293.4	7163.1	8143.1
47.5°	713.7	696.3	710.2	790.3	985.2	3592.8	8040.4	9098.7
50°	673.6	640.6	652.7	738.1	934.8	4242.2	9178.9	10367.8
52.5°	631.9	588.3	595.3	673.6	889.5	4860.1	10413.0	12042.3
55°	588.3	539.7	543.1	609.3	825.1	4952.4	11617.6	14326.1
57.5°	539.7	494.4	494.4	550.1	778.1	4292.6	12543.6	17160.0
60°	485.6	456.0	447.4	503.1	819.9	3028.9	12651.6	18987.8
62.5°	426.5	410.8	398.6	457.8	851.3	1794.7	11783.0	18545.6
65°	358.5	355.1	346.4	503.1	717.2	1060.1	10115.3	17189.7
67.5°	301.1	295.9	295.9	527.5	544.9	666.7	7902.9	15323.5
70°	259.3	240.3	240.3	398.6	330.8	461.2	5518.1	13309.5
72.5°	217.6	196.7	182.8	318.6	247.2	337.7	3448.4	11398.2
75°	174.0	158.4	141.0	210.6	184.5	255.8	2003.6	9443.4
77.5°	125.4	118.4	99.2	154.9	134.1	184.5	1192.4	7286.6
80°	64.4	66.1	62.6	88.8	90.5	125.4	678.9	4987.1
82.5°	38.3	29.6	33.1	43.6	52.2	71.3	255.8	2931.4
85°	24.4	15.7	15.7	20.9	26.1	27.9	78.3	1188.9
87.5°	12.2	5.2	7.0	10.5	8.7	7.0	3.5	299.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)