

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: P968933

Luminaire Tested: **NAV-SB5C-830-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968933
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-SB5C-830-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 615mA 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: 26591.6 lumens
Efficiency: N/A
Efficacy: 106.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

Input Watts (W): 249.5
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



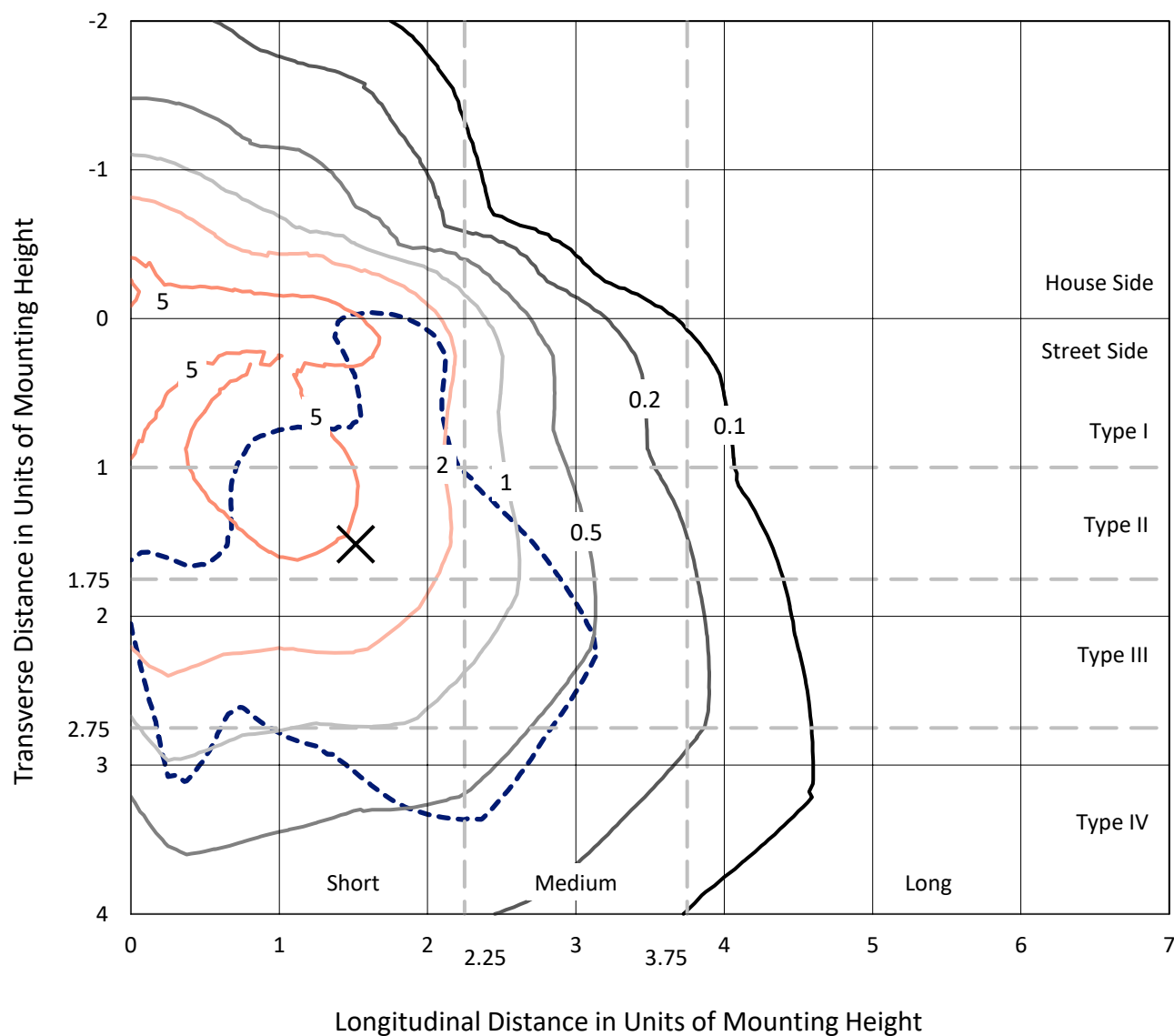
REPORT NUMBER: P968933

CATALOG NUMBER: NAV-SB5C-830-U-SLL-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

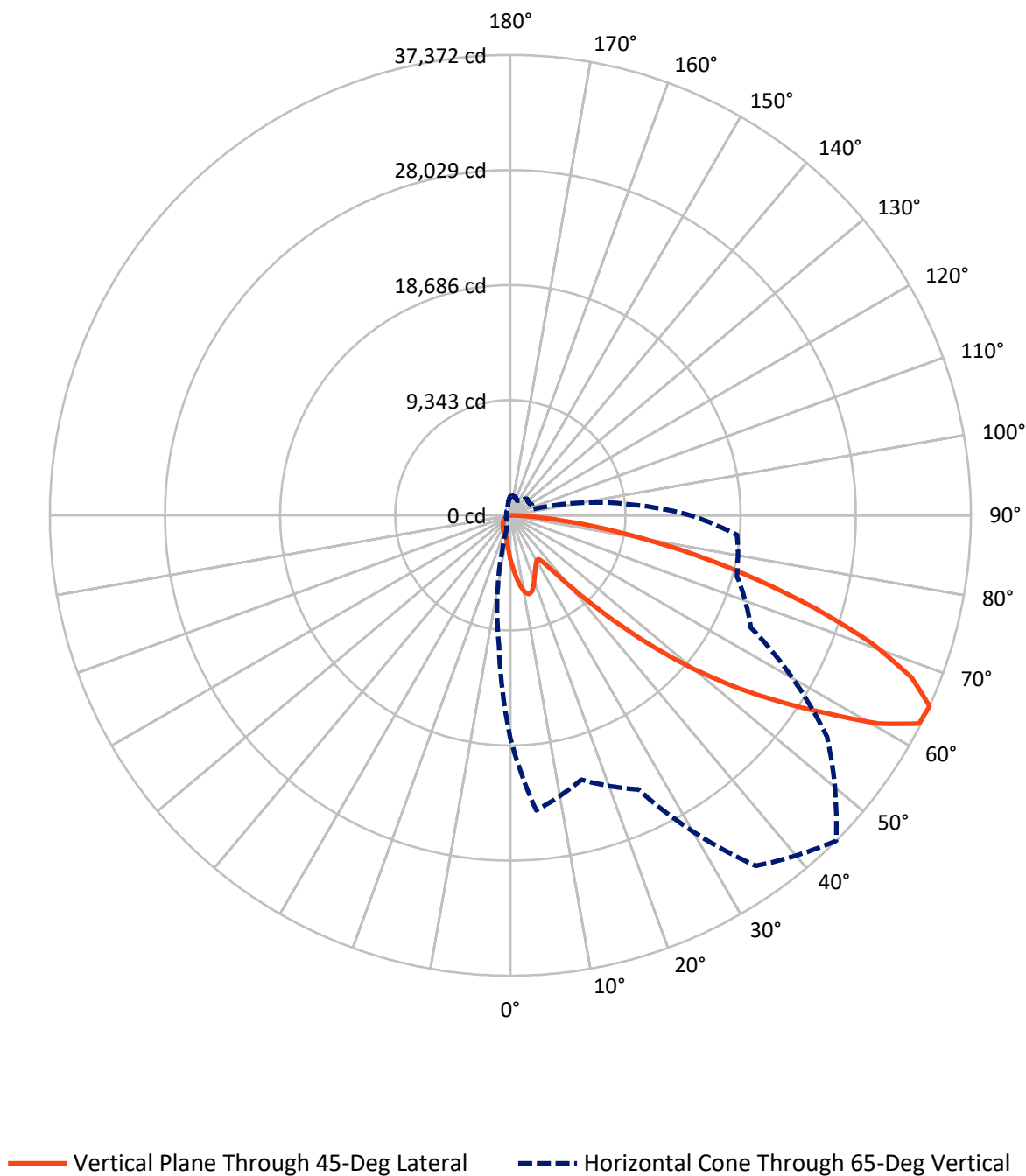


Based on 25 foot mounting height. Maximum calculated value = 9.7 fc

Type IV - Short - N/A

REPORT NUMBER: P968933
CATALOG NUMBER: NAV-SB5C-830-U-SLL-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P968933

CATALOG NUMBER: NAV-SB5C-830-U-SLL-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5285.6	0.0	5285.6
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	21306.0	0.0	21306.0
	% Fixture	80.1	0.0	80.1
Total	Lumens	26591.6	0.0	26591.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	362.5	1.4
10°-20°	1086.7	4.1
20°-30°	1600.9	6.0
30°-40°	2056.8	7.7
40°-50°	3326.4	12.5
50°-60°	5833.2	21.9
60°-70°	7298.9	27.4
70°-80°	4265.1	16.0
80°-90°	761.0	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°	26591.6	100.0
0°-180°	26591.6	100.0

Coefficient of Utilization



REPORT NUMBER: P968933

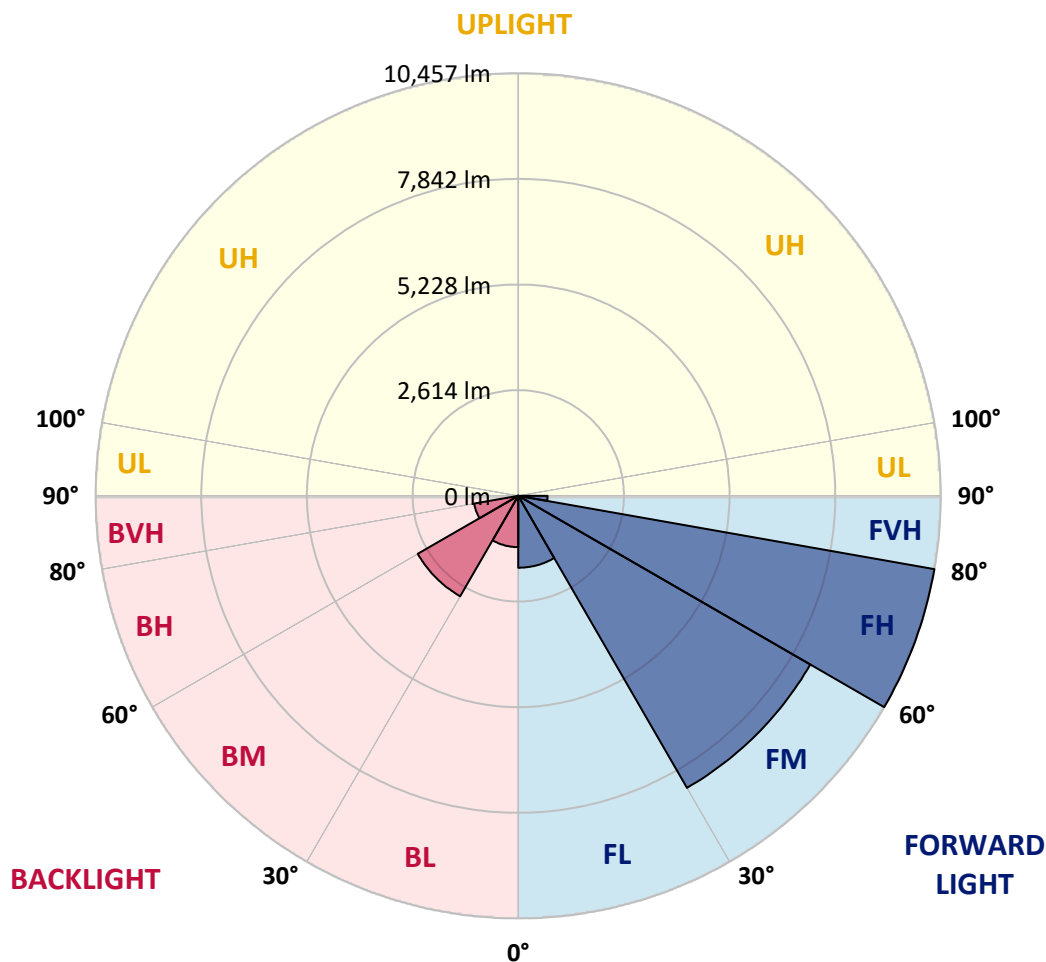
CATALOG NUMBER: NAV-SB5C-830-U-SLL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1779.3	6.7			
FM	(30°-60°)	8344.8	31.4			
FH	(60°-80°)	10456.6	39.3			G4/12000
FVH	(80°-90°)	725.3	2.7			G4/750
BL	(0°-30°)	1270.9	4.8	B3/2500		
BM	(30°-60°)	2871.6	10.8	B3/5000		
BH	(60°-80°)	1107.4	4.2	B3/2500		G3/2500
BVH	(80°-90°)	35.7	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



REPORT NUMBER: P968933

CATALOG NUMBER: NAV-SB5C-830-U-SLL-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3682.1	3682.1	3682.1	3682.1	3682.1	3682.1	3682.1	3682.1	3682.1	3682.1	3682.1
2.5°	4125.4	4156.6	4226.2	4262.8	4319.6	4323.2	4323.2	4273.7	4272.0	4171.2	4160.2
5°	4610.9	4684.1	4849.0	5019.3	5056.0	5065.1	5046.8	4947.9	4874.6	4678.6	4636.5
7.5°	5092.6	5233.6	5484.7	5711.8	5785.1	5785.1	5741.1	5579.9	5429.7	5145.7	5039.5
10°	5492.0	5669.7	6010.4	6265.0	6349.3	6331.0	6241.2	6037.9	5830.9	5486.5	5347.2
12.5°	5755.8	5955.5	6329.2	6534.3	6620.4	6572.8	6470.2	6272.4	6054.4	5691.6	5534.1
15°	5887.7	6096.5	6420.7	6528.8	6505.1	6455.6	6442.7	6347.5	6182.6	5843.7	5671.5
17.5°	5944.5	6138.6	6363.9	6296.2	6094.6	6056.2	6184.4	6305.3	6265.0	5975.6	5814.4
20°	5997.6	6160.7	6228.4	5928.0	5576.2	5541.5	5786.9	6131.3	6307.1	6098.3	5949.9
22.5°	6070.9	6171.6	6032.4	5539.6	5160.4	5079.8	5350.9	5869.4	6319.9	6254.0	6105.6
25°	6171.6	6199.1	5816.3	5171.4	4790.3	4709.8	4962.5	5578.0	6298.0	6422.5	6296.2
27.5°	6292.5	6235.7	5609.2	4863.6	4495.4	4420.3	4673.2	5297.8	6235.7	6591.2	6501.4
30°	6450.0	6283.4	5404.0	4625.5	4284.8	4229.8	4473.4	5056.0	6158.8	6805.5	6756.0
32.5°	6609.4	6303.5	5213.6	4486.3	4237.1	4257.3	4457.0	4925.9	6074.6	7010.6	7034.5
35°	6781.6	6367.6	5120.1	4623.7	4634.6	4810.5	4892.9	5046.8	6061.7	7289.1	7382.5
37.5°	7016.1	6510.5	5231.8	5306.9	5688.0	6052.5	5984.8	5638.5	6210.1	7704.9	7879.0
40°	7353.1	6761.5	5719.1	6470.2	7252.4	7844.1	7585.8	6713.9	6664.3	8303.9	8564.1
42.5°	7844.1	7160.9	6583.8	7891.8	9218.0	10192.6	9500.1	8100.6	7459.4	9159.4	9491.0
45°	8569.5	7807.5	7629.8	9392.1	11641.6	13176.7	11736.9	9578.9	8573.2	10454.6	10714.6
47.5°	9575.2	8758.2	8609.8	10972.9	14587.3	16573.0	14217.3	10949.2	9840.8	12220.5	12280.9
50°	10910.7	10038.7	9538.6	12702.3	17816.9	20035.3	16695.8	12271.8	11293.6	14378.4	14308.8
52.5°	12673.0	11824.8	10621.3	14349.2	21138.1	23424.2	19185.3	13433.1	13096.1	16882.7	16739.7
55°	15076.4	14512.2	12101.5	15920.9	24457.4	26833.4	21577.7	14528.7	15477.6	19857.6	18992.9
57.5°	18058.7	18461.7	14235.5	17743.6	27441.6	30347.0	23981.2	16060.1	18569.8	23184.3	20300.9
60°	19982.2	23713.7	18322.5	20438.3	30832.4	34320.3	27274.8	18972.8	21819.6	24376.9	20051.8
62.5°	19516.8	25384.4	23217.3	23878.6	33950.3	37209.1	30502.7	21898.3	22431.4	22620.1	18131.9
65°	18089.8	24036.1	22218.9	24547.2	34739.8	37372.2	31365.5	21520.9	19027.8	18467.2	14574.5
67.5°	16126.0	22436.8	19846.6	22774.0	33312.8	35093.3	29758.9	19036.9	14704.5	13858.2	10573.6
70°	14006.5	20667.3	18289.5	20784.5	30592.5	31121.9	27027.6	16743.4	10815.4	9359.1	6785.3
72.5°	11995.2	18824.4	17223.4	18745.6	26963.4	25868.0	23471.9	14715.5	7875.3	6750.4	4823.3
75°	9938.0	16105.9	15704.7	16323.9	22191.5	20376.0	19502.2	12183.9	6180.7	4883.8	3328.5
77.5°	7668.2	12585.1	13508.3	13072.3	15620.5	15135.0	15116.7	9155.7	4515.6	3258.9	2086.5
80°	5248.3	8771.0	10553.5	9221.7	10137.7	9890.3	11385.2	6142.3	3275.4	1962.0	1161.4
82.5°	3084.8	5339.9	7345.9	4464.3	5605.5	5753.9	6779.8	2987.8	1927.1	452.4	252.8
85°	1251.2	2108.5	2872.4	1747.6	2703.8	2280.7	2573.8	839.0	536.8	11.0	0.0
87.5°	315.1	674.1	472.6	196.0	313.2	287.6	227.1	102.6	21.9	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

REPORT NUMBER: P968933

CATALOG NUMBER: NAV-SB5C-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	3682.1	3682.1	3682.1	3682.1	3682.1	3682.1	3682.1	3682.1	3682.1	3682.1	3682.1
2.5°	4088.7	4046.6	3942.3	3837.8	3753.6	3640.0	3564.8	3475.1	3389.0	3312.1	3297.4
5°	4521.1	4381.9	4191.3	4017.3	3839.6	3667.4	3497.1	3317.5	3152.7	3051.9	2987.8
7.5°	4872.8	4627.4	4374.5	4152.9	3938.6	3737.0	3511.8	3293.7	3035.4	2898.1	2773.4
10°	5134.7	4812.4	4480.8	4226.2	4010.0	3814.0	3623.5	3403.6	3092.2	2920.0	2733.2
12.5°	5306.9	4924.1	4535.7	4244.4	4002.6	3850.6	3766.4	3680.3	3370.7	3169.2	2898.1
15°	5426.0	5002.8	4574.2	4202.3	3905.6	3793.8	3878.1	3977.0	3779.2	3546.5	3193.0
17.5°	5556.1	5105.4	4590.7	4088.7	3716.9	3669.3	3887.2	4116.2	4107.1	3876.2	3530.0
20°	5693.5	5195.2	4579.7	3905.6	3487.9	3530.0	3808.5	4074.1	4185.9	4061.3	3753.6
22.5°	5834.5	5281.3	4537.6	3667.4	3273.5	3405.5	3684.0	3916.5	4048.4	4010.0	3775.5
25°	6012.2	5402.3	4475.3	3411.0	3095.9	3279.1	3539.2	3727.9	3819.5	3817.6	3656.5
27.5°	6224.7	5563.4	4442.3	3203.9	2969.5	3136.2	3367.0	3535.5	3599.7	3599.7	3471.4
30°	6472.1	5753.9	4405.7	3068.4	2896.2	2987.8	3167.4	3332.2	3396.3	3396.3	3288.2
32.5°	6746.9	5937.1	4317.7	2985.9	2841.2	2843.0	2956.6	3106.9	3183.9	3194.8	3117.8
35°	7076.6	6133.2	4125.4	2920.0	2777.1	2702.0	2756.9	2881.6	2973.1	2997.0	2949.3
37.5°	7508.8	6373.1	3850.6	2823.0	2678.2	2553.7	2566.5	2661.7	2762.5	2799.1	2768.0
40°	8089.6	6655.2	3564.8	2683.8	2539.0	2390.6	2385.1	2454.8	2553.7	2594.0	2577.5
42.5°	8857.1	6994.1	3291.9	2550.0	2370.4	2218.4	2209.3	2264.2	2350.3	2392.5	2385.1
45°	9839.1	7409.9	3057.4	2445.5	2205.6	2055.3	2051.7	2097.5	2172.6	2216.6	2207.4
47.5°	11203.8	7825.8	2898.1	2390.6	2075.5	1921.7	1928.9	1969.2	2037.1	2068.2	2055.3
50°	12982.5	7952.2	2817.4	2390.6	2005.9	1802.6	1839.3	1872.2	1923.5	1941.8	1925.3
52.5°	14689.9	7534.6	2744.1	2405.3	2015.0	1701.8	1780.6	1804.4	1848.4	1855.7	1831.9
55°	15527.0	6477.5	2643.4	2409.0	2071.8	1615.7	1733.0	1776.9	1793.4	1791.6	1751.3
57.5°	15239.4	5237.3	2473.0	2394.3	2110.4	1560.8	1674.3	1758.6	1769.6	1753.2	1678.0
60°	14230.1	3856.2	2342.9	2286.2	2095.7	1544.3	1584.5	1718.3	1734.8	1712.8	1590.1
62.5°	12537.4	2676.4	2242.2	2048.1	2031.5	1538.7	1443.5	1630.4	1670.6	1639.5	1460.0
65°	9870.1	1890.5	1930.8	1795.3	1892.4	1509.5	1296.9	1524.2	1579.1	1531.5	1278.7
67.5°	6679.0	1364.8	1564.5	1626.7	1667.1	1443.5	1190.7	1403.2	1476.5	1414.2	1067.9
70°	3607.0	958.1	1033.2	1370.2	1416.0	1329.9	1095.4	1280.5	1364.8	1296.9	870.1
72.5°	2130.5	688.8	723.5	1101.0	1179.8	1170.6	989.2	1137.6	1240.1	1159.6	707.1
75°	1174.2	465.2	516.6	798.7	958.1	903.1	850.0	963.6	1067.9	989.2	545.9
77.5°	525.7	278.5	359.1	523.9	752.9	619.2	657.6	751.1	848.2	765.8	364.6
80°	203.4	155.7	238.1	285.8	547.8	342.6	423.1	553.2	622.8	556.9	221.7
82.5°	25.6	69.6	102.6	111.7	318.8	181.3	245.5	348.1	342.6	296.7	111.7
85°	0.0	12.8	14.7	7.3	137.4	65.9	80.6	113.6	106.3	80.6	9.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	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

REPORT NUMBER: P968933

CATALOG NUMBER: NAV-SB5C-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	3682.1	3682.1	3682.1	3682.1	3682.1	3682.1	3682.1	3682.1	3682.1	3682.1	3682.1
2.5°	3207.6	3141.7	3108.7	3081.3	3106.9	3121.5	3121.5	3183.9	3220.4	3235.1	3337.7
5°	2826.6	2703.8	2621.4	2571.9	2588.4	2606.8	2626.9	2705.7	2758.8	2793.6	2953.0
7.5°	2526.2	2339.4	2223.9	2163.5	2172.6	2185.4	2201.9	2278.9	2332.0	2377.8	2555.4
10°	2377.8	2114.0	1962.0	1888.7	1875.9	1868.5	1863.0	1908.9	1949.1	1985.7	2161.6
12.5°	2385.1	2016.9	1831.9	1742.1	1703.7	1659.7	1624.8	1632.2	1657.8	1703.7	1815.4
15°	2478.6	1985.7	1764.1	1652.4	1588.2	1537.0	1494.9	1485.6	1494.9	1502.1	1571.7
17.5°	2604.9	1982.1	1705.5	1566.3	1500.3	1458.2	1419.7	1406.9	1408.8	1417.9	1436.2
20°	2705.7	1971.1	1639.5	1483.8	1425.2	1388.6	1350.1	1337.3	1340.9	1342.7	1362.9
22.5°	2758.8	1954.6	1566.3	1401.4	1352.0	1315.3	1280.5	1278.7	1278.7	1289.7	1304.3
25°	2758.8	1919.8	1500.3	1322.7	1278.7	1245.7	1203.6	1210.8	1214.5	1229.2	1251.2
27.5°	2692.9	1853.8	1447.2	1254.8	1209.1	1176.1	1137.6	1146.8	1152.2	1168.7	1196.2
30°	2608.6	1775.1	1386.7	1190.7	1137.6	1113.8	1080.8	1084.4	1091.8	1110.1	1141.2
32.5°	2518.8	1681.7	1337.3	1126.6	1073.5	1055.1	1018.5	1024.0	1031.4	1051.5	1086.3
35°	2419.9	1571.7	1278.7	1067.9	1014.9	1000.2	958.1	961.8	972.7	994.8	1029.5
37.5°	2315.5	1481.9	1220.1	1011.2	956.2	941.6	897.6	901.3	914.1	939.7	972.7
40°	2212.9	1394.1	1157.7	950.8	895.7	882.9	835.4	839.0	853.6	881.1	915.9
42.5°	2101.1	1326.2	1077.2	888.5	829.8	817.0	773.1	778.6	795.0	822.6	857.3
45°	1967.5	1282.3	987.4	829.8	763.9	751.1	710.7	721.8	740.0	767.5	804.2
47.5°	1830.0	1264.0	912.2	767.5	696.1	685.1	652.1	670.5	690.6	712.6	752.9
50°	1698.1	1240.1	835.4	708.9	637.4	626.5	604.5	628.3	648.5	668.6	707.1
52.5°	1548.0	1188.9	765.8	657.6	588.0	584.4	573.4	595.3	613.7	632.0	665.0
55°	1392.3	1106.5	705.3	611.8	545.9	549.6	544.1	562.4	577.1	593.6	622.8
57.5°	1256.6	1002.0	657.6	562.4	509.2	520.3	512.9	522.1	531.3	551.3	575.2
60°	1119.3	877.5	604.5	503.8	472.6	485.4	465.2	463.5	467.1	472.6	516.6
62.5°	934.3	747.4	538.5	452.4	432.3	437.8	399.3	370.0	370.0	375.6	441.5
65°	751.1	626.5	465.2	393.8	377.4	373.7	318.8	278.5	274.8	291.3	348.1
67.5°	617.4	520.3	392.1	327.9	316.9	320.6	280.2	240.0	236.3	254.6	296.7
70°	511.1	419.5	313.2	252.8	263.8	280.2	240.0	201.5	196.0	212.5	252.8
72.5°	406.7	327.9	240.0	186.9	218.0	238.1	196.0	159.4	155.7	170.4	208.8
75°	298.6	234.5	163.1	135.6	168.5	186.9	142.9	113.6	108.0	121.0	159.4
77.5°	185.0	131.9	102.6	80.6	115.4	124.5	75.1	65.9	64.2	73.3	100.8
80°	86.1	56.8	49.5	27.5	42.1	49.5	31.2	34.8	36.6	44.0	62.3
82.5°	23.8	9.1	1.8	0.0	0.0	14.7	7.3	14.7	18.3	27.5	40.3
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	9.1	16.5	29.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3	14.7
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: P968933

CATALOG NUMBER: NAV-SB5C-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	3682.1	3682.1	3682.1	3682.1	3682.1	3682.1	3682.1	3682.1
2.5°	3414.6	3487.9	3605.1	3726.1	3845.1	3966.0	4083.3	4125.4
5°	3097.8	3266.3	3498.9	3748.0	4004.5	4264.6	4502.7	4610.9
7.5°	2744.1	2985.9	3335.9	3726.1	4134.5	4543.1	4918.6	5092.6
10°	2366.8	2672.7	3072.0	3599.7	4185.9	4750.1	5266.7	5492.0
12.5°	2007.8	2328.3	2769.8	3401.8	4145.5	4869.2	5490.1	5755.8
15°	1707.3	1991.3	2467.6	3167.4	4015.4	4876.4	5596.4	5887.7
17.5°	1481.9	1667.1	2159.8	2907.2	3845.1	4808.7	5633.0	5944.5
20°	1370.2	1421.6	1760.4	2573.8	3685.7	4744.6	5669.7	5997.6
22.5°	1304.3	1317.1	1439.8	2143.3	3495.2	4724.4	5733.7	6070.9
25°	1251.2	1254.8	1287.8	1698.1	3203.9	4711.6	5832.8	6171.6
27.5°	1198.0	1198.0	1216.4	1368.4	2808.3	4656.7	5961.0	6292.5
30°	1144.9	1144.9	1157.7	1210.8	2344.8	4548.5	6114.8	6450.0
32.5°	1090.0	1090.0	1101.0	1139.4	1872.2	4413.0	6255.9	6609.4
35°	1035.0	1031.4	1046.0	1086.3	1489.3	4240.8	6396.9	6781.6
37.5°	976.4	974.6	989.2	1035.0	1286.0	4041.2	6503.2	7016.1
40°	914.1	914.1	930.6	980.1	1227.3	3790.1	6671.7	7353.1
42.5°	857.3	853.6	872.0	932.4	1183.4	3550.2	6974.0	7844.1
45°	802.4	795.0	811.5	886.6	1106.5	3465.9	7538.2	8569.5
47.5°	751.1	732.8	747.4	831.7	1036.9	3781.0	8461.5	9575.2
50°	708.9	674.1	687.0	776.7	983.7	4464.3	9659.5	10910.7
52.5°	665.0	619.2	626.5	708.9	936.1	5114.6	10958.3	12673.0
55°	619.2	567.8	571.5	641.1	868.3	5211.7	12226.0	15076.4
57.5°	567.8	520.3	520.3	578.9	818.9	4517.4	13200.6	18058.7
60°	511.1	479.9	470.8	529.4	862.8	3187.4	13314.1	19982.2
62.5°	448.8	432.3	419.5	481.7	895.7	1888.7	12400.0	19516.8
65°	377.4	373.7	364.6	529.4	754.7	1115.6	10645.0	18089.8
67.5°	316.9	311.4	311.4	555.0	573.4	701.6	8316.7	16126.0
70°	273.0	252.8	252.8	419.5	348.1	485.4	5807.0	14006.5
72.5°	229.0	207.0	192.4	335.3	260.1	355.4	3628.9	11995.2
75°	183.2	166.7	148.4	221.7	194.1	269.3	2108.5	9938.0
77.5°	131.9	124.5	104.4	163.1	141.0	194.1	1254.8	7668.2
80°	67.8	69.6	65.9	93.4	95.2	131.9	714.4	5248.3
82.5°	40.3	31.2	34.8	45.8	54.9	75.1	269.3	3084.8
85°	25.6	16.5	16.5	21.9	27.5	29.3	82.4	1251.2
87.5°	12.8	5.5	7.3	11.0	9.1	7.3	3.7	315.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)