

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: P968423

Luminaire Tested: **NAV-SB5B-830-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968423
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-830-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20180.2 lumens
Efficiency: N/A
Efficacy: 110.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

Input Watts (W): 182.7
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



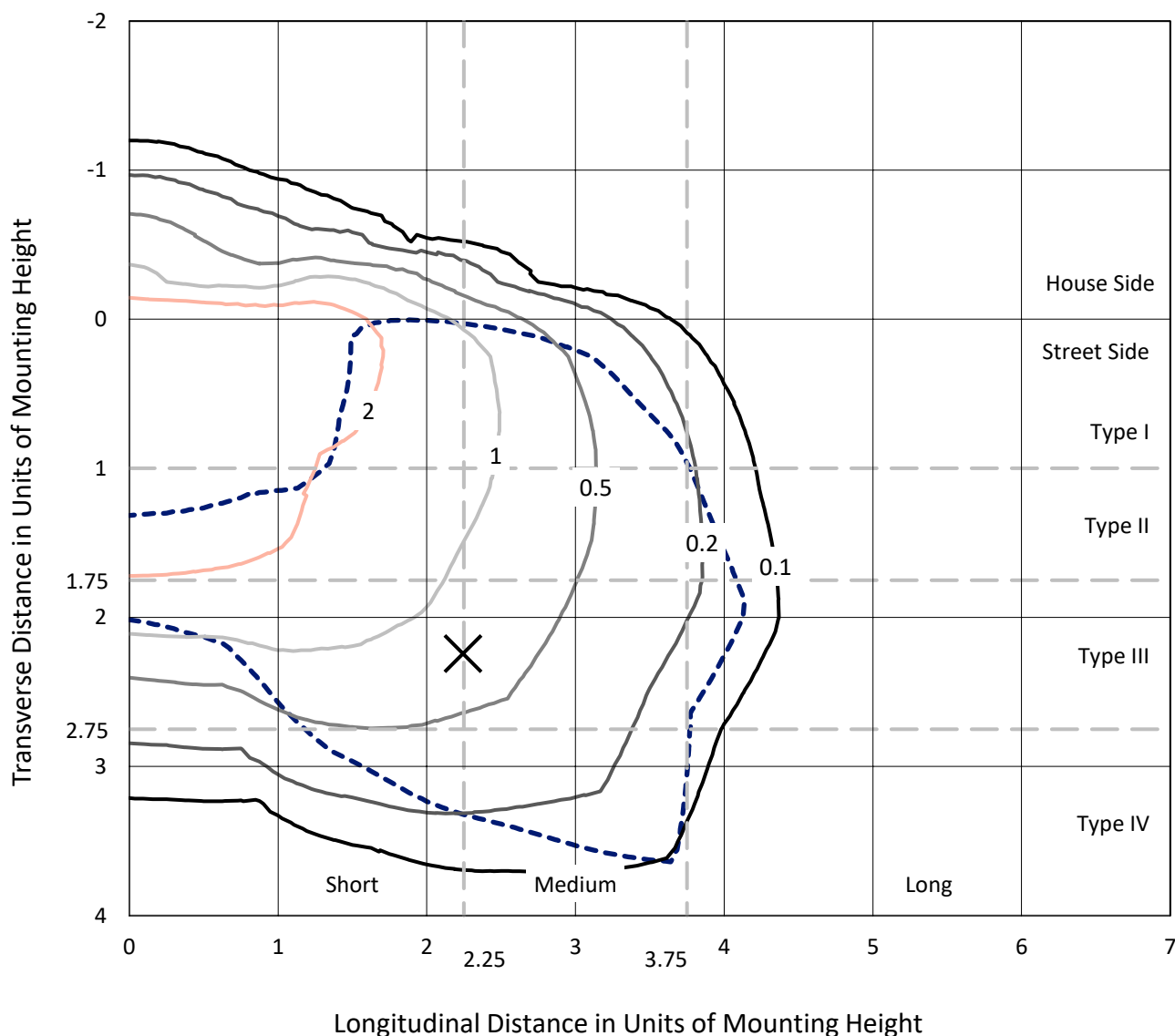
REPORT NUMBER: P968423

CATALOG NUMBER: NAV-SB5B-830-U-T4W-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

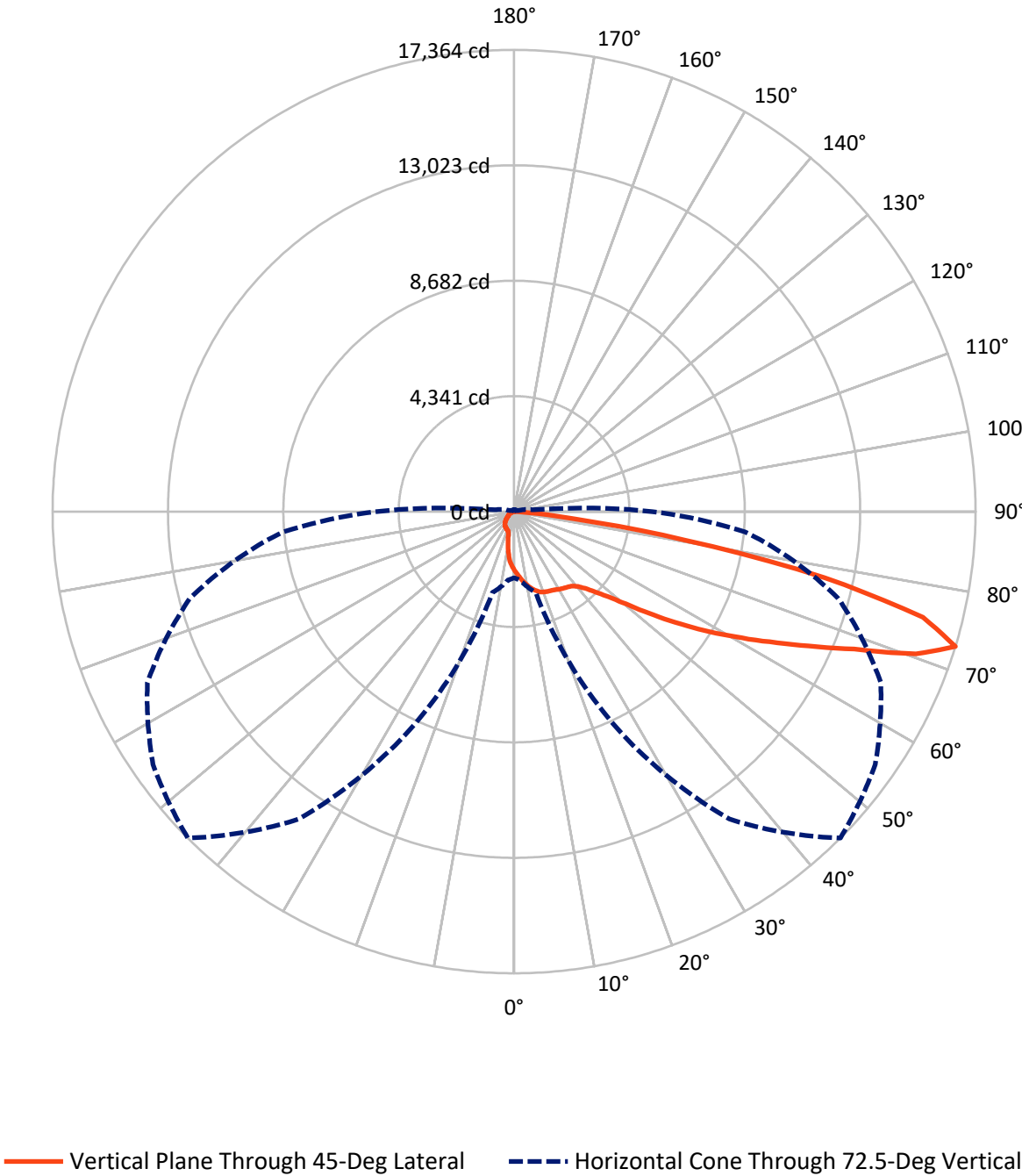


Based on 25 foot mounting height. Maximum calculated value = 4.9 fc

Type IV - Short - N/A

REPORT NUMBER: P968423
CATALOG NUMBER: NAV-SB5B-830-U-T4W-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P968423

CATALOG NUMBER: NAV-SB5B-830-U-T4W-HSS

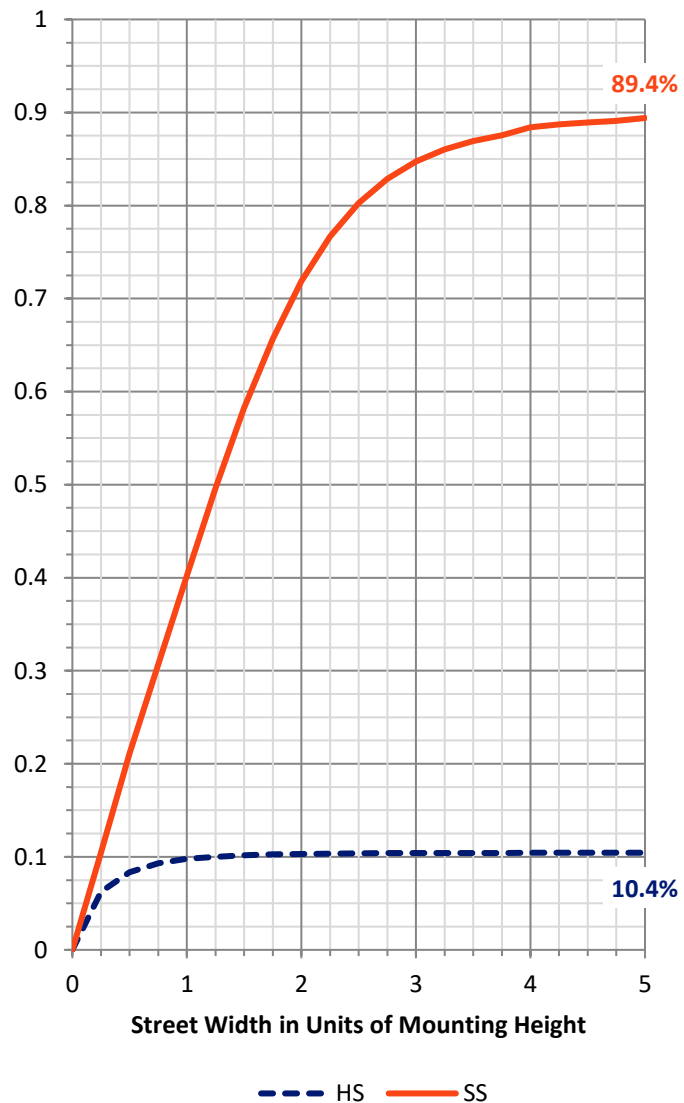
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2120.4	0.0	2120.4
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	18059.8	0.0	18059.8
	% Fixture	89.5	0.0	89.5
Total	Lumens	20180.2	0.0	20180.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.3	1.0
10°-20°	608.8	3.0
20°-30°	999.7	5.0
30°-40°	1417.8	7.0
40°-50°	2343.5	11.6
50°-60°	4209.8	20.9
60°-70°	5845.6	29.0
70°-80°	4240.2	21.0
80°-90°	306.6	1.5
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°	20180.2	100.0
0°-180°	20180.2	100.0

Coefficient of Utilization



REPORT NUMBER: P968423

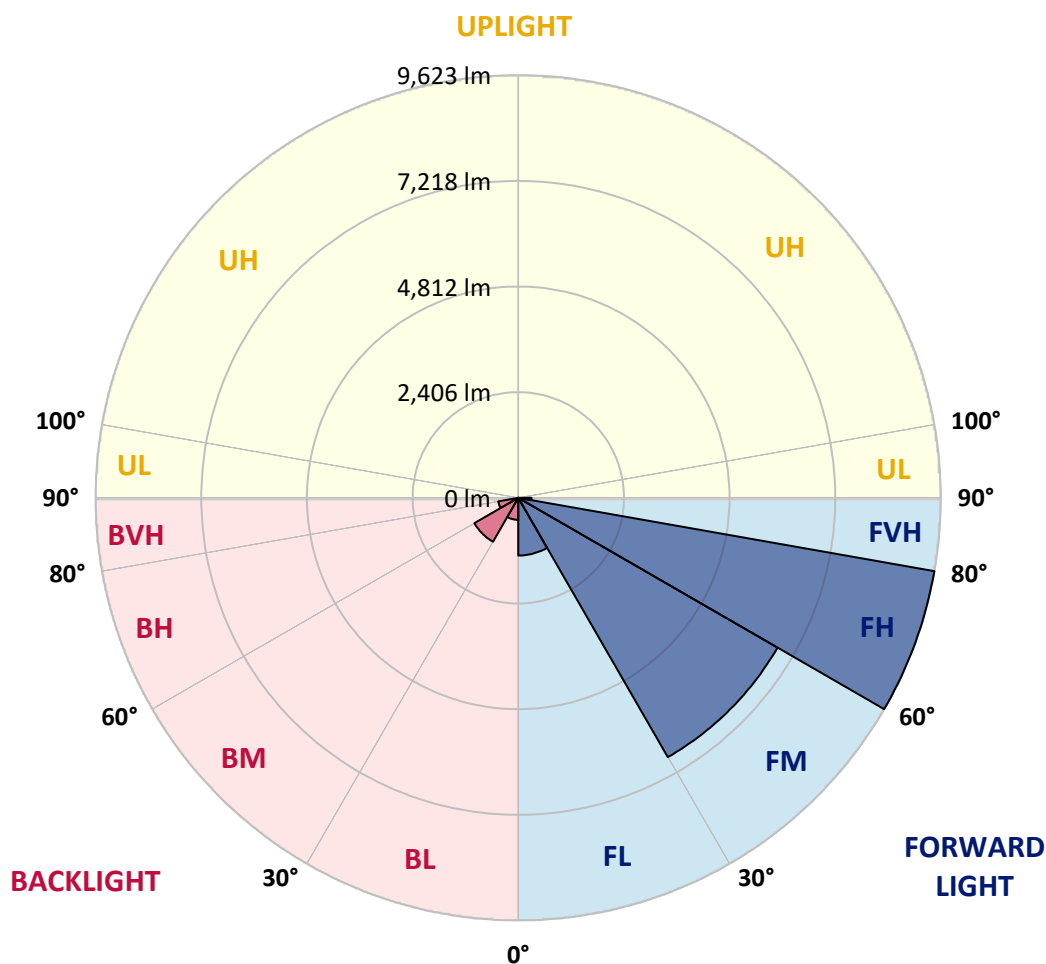
CATALOG NUMBER: NAV-SB5B-830-U-T4W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1314.5	6.5			
FM	(30°-60°)	6817.9	33.8			
FH	(60°-80°)	9623.4	47.7			G4/12000
FVH	(80°-90°)	304.0	1.5			G3/500
BL	(0°-30°)	502.2	2.5	B2/1000		
BM	(30°-60°)	1153.2	5.7	B2/2500		
BH	(60°-80°)	462.4	2.3	B1/500		G1/500
BVH	(80°-90°)	2.6	0.0			G0/10
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: P968423

CATALOG NUMBER: NAV-SB5B-830-U-T4W-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	2210.8	2210.8	2210.8	2210.8	2210.8	2210.8	2210.8	2210.8	2210.8	2210.8	2210.8
2.5°	2414.7	2418.8	2416.0	2399.5	2372.0	2356.8	2348.5	2321.0	2303.1	2271.4	2238.3
5°	2636.4	2652.9	2643.3	2610.3	2557.9	2520.7	2509.7	2453.2	2402.3	2343.0	2274.2
7.5°	2871.9	2880.2	2862.3	2819.6	2749.4	2686.0	2676.4	2597.9	2516.6	2425.7	2332.0
10°	3075.8	3085.5	3057.9	2996.0	2916.0	2837.5	2823.8	2737.0	2640.5	2529.0	2409.2
12.5°	3246.6	3256.2	3220.4	3146.0	3057.9	2976.6	2962.9	2871.9	2765.9	2641.9	2493.1
15°	3376.1	3394.0	3345.8	3265.9	3170.8	3089.6	3082.7	2993.2	2889.9	2752.1	2593.7
17.5°	3451.9	3469.7	3424.3	3327.9	3246.6	3177.7	3169.5	3095.1	2998.6	2866.4	2691.5
20°	3464.3	3480.8	3432.5	3348.6	3281.0	3226.0	3221.8	3168.1	3097.9	2971.2	2797.5
22.5°	3427.1	3447.7	3403.6	3336.2	3289.3	3260.4	3254.9	3224.5	3184.7	3077.2	2896.8
25°	3388.4	3405.0	3371.9	3312.7	3287.9	3285.2	3289.3	3283.8	3275.6	3184.7	3012.5
27.5°	3385.8	3403.6	3366.4	3309.9	3296.2	3325.1	3329.3	3355.4	3362.3	3282.5	3124.0
30°	3409.2	3421.6	3385.8	3326.5	3319.7	3385.8	3387.1	3434.0	3444.9	3365.1	3234.2
32.5°	3460.1	3473.9	3438.1	3351.3	3341.7	3434.0	3438.1	3500.1	3518.0	3453.2	3349.9
35°	3579.9	3596.5	3555.1	3420.2	3385.8	3479.4	3491.8	3564.8	3600.6	3546.9	3469.7
37.5°	3878.9	3830.6	3774.2	3559.3	3486.3	3551.0	3571.7	3657.1	3720.4	3658.4	3613.0
40°	4621.3	4469.8	4293.4	3796.2	3662.6	3703.9	3720.4	3805.8	3892.6	3832.1	3810.0
42.5°	5735.6	5556.5	5272.8	4341.7	3928.4	3949.1	3961.5	4035.8	4158.5	4110.2	4115.8
45°	6728.8	6664.0	6374.8	5272.8	4425.7	4323.8	4338.9	4377.5	4558.0	4540.0	4575.8
47.5°	7491.8	7454.7	7231.6	6341.7	5265.9	4782.4	4825.2	4843.0	5103.4	5166.7	5263.2
50°	8078.6	8064.9	7865.1	7292.2	6363.7	5458.7	5473.9	5435.4	5825.2	5982.2	6165.4
52.5°	8632.3	8679.2	8531.8	8175.1	7535.9	6344.4	6341.7	6159.8	6686.1	6923.0	7235.7
55°	9132.4	9148.9	9164.1	9076.0	8715.1	7352.7	7326.6	7029.0	7684.7	7929.9	8268.8
57.5°	9602.1	9609.0	9744.0	9924.5	9942.3	8435.4	8387.2	8030.5	8775.6	8950.6	9158.6
60°	9917.5	9949.3	10234.3	10735.7	10954.8	9552.5	9526.3	9162.7	9885.8	9967.1	9928.6
62.5°	9463.0	9655.8	10374.8	11369.4	11910.7	10790.8	10778.4	10436.9	11053.9	10987.8	10657.2
65°	7659.9	7986.4	9250.8	11797.7	12848.7	12173.8	12191.7	11828.0	12253.7	12038.8	11249.5
67.5°	5358.2	5702.6	7198.5	11832.2	13897.0	13797.7	13901.0	13330.8	13527.7	13045.7	11390.0
70°	3705.3	3883.0	4856.9	11091.1	14713.8	16034.7	16031.9	15176.6	14795.1	13504.4	10673.7
72.5°	2491.8	2584.0	3154.3	8799.0	14113.2	17363.9	17284.1	16587.1	15222.1	12629.7	8720.5
75°	1050.9	1118.5	1460.1	4945.0	11165.5	15886.0	15669.7	14658.6	13525.1	9945.1	5440.9
77.5°	333.3	362.2	575.7	1770.0	6150.2	11940.9	11712.4	9154.5	9064.9	4989.1	1989.0
80°	158.4	184.6	323.7	710.7	2420.1	6494.6	6462.9	4153.0	3899.5	1347.2	399.4
82.5°	68.9	81.3	179.1	380.2	1082.7	2316.8	2363.6	1413.3	1169.4	511.1	122.6
85°	22.0	28.9	82.6	175.0	457.4	575.7	568.9	336.1	471.1	278.3	42.7
87.5°	0.0	0.0	27.6	40.0	46.8	33.1	37.2	28.9	130.9	77.2	15.2
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: P968423

CATALOG NUMBER: NAV-SB5B-830-U-T4W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2210.8	2210.8	2210.8	2210.8	2210.8	2210.8	2210.8	2210.8	2210.8	2210.8	2210.8
2.5°	2221.8	2199.8	2161.2	2125.3	2093.7	2062.0	2042.7	2015.2	2012.4	2012.4	2019.4
5°	2237.0	2201.2	2132.3	2059.2	1975.3	1895.3	1815.5	1738.3	1713.5	1695.7	1703.9
7.5°	2281.0	2224.6	2115.7	1976.6	1816.8	1641.9	1519.4	1387.0	1336.1	1308.5	1312.7
10°	2344.4	2267.3	2102.0	1858.1	1599.2	1360.9	1185.9	1042.7	987.6	964.2	964.2
12.5°	2414.7	2319.6	2077.2	1710.7	1360.9	1075.7	905.0	838.9	830.6	830.6	830.6
15°	2498.6	2382.9	2034.5	1537.2	1111.6	851.3	790.7	793.5	801.7	807.2	807.2
17.5°	2585.5	2450.5	1967.0	1343.0	891.2	765.9	767.2	771.4	778.3	783.7	783.7
20°	2679.1	2517.9	1877.5	1136.4	764.4	741.1	745.2	749.3	754.8	757.6	759.0
22.5°	2779.7	2581.4	1771.4	933.9	721.8	720.4	721.8	725.9	732.8	732.8	735.5
25°	2887.1	2651.6	1650.1	786.5	699.8	699.8	702.5	705.2	710.7	710.7	712.2
27.5°	2997.3	2716.4	1522.0	709.4	680.5	679.1	679.1	683.2	685.9	687.4	688.7
30°	3118.6	2792.1	1394.0	692.9	665.3	658.5	654.3	657.0	659.8	661.1	663.9
32.5°	3242.5	2865.1	1279.6	699.8	650.2	637.8	624.0	621.3	621.3	626.7	630.9
35°	3380.2	2944.9	1191.5	723.1	641.9	607.4	585.4	573.0	574.4	582.6	586.8
37.5°	3545.5	3041.4	1126.8	743.8	636.4	573.0	537.2	522.0	512.4	522.0	519.3
40°	3761.7	3183.2	1079.9	760.3	629.5	533.1	484.8	460.0	442.2	447.6	445.0
42.5°	4080.0	3406.4	1062.0	761.7	614.4	486.3	431.1	398.1	371.9	373.3	367.8
45°	4526.3	3759.0	1154.3	743.8	581.3	435.3	374.6	330.6	314.1	310.0	304.4
47.5°	5137.8	4272.8	1367.8	706.6	533.1	385.7	319.6	282.4	270.0	263.1	258.9
50°	5957.4	4932.6	1604.7	665.3	484.8	338.9	274.1	250.7	242.4	235.5	234.2
52.5°	6907.9	5602.0	1799.0	624.0	436.6	297.6	245.2	231.4	224.5	219.0	217.6
55°	7779.7	6063.5	1787.9	579.9	389.8	264.4	224.5	216.3	208.0	202.4	199.8
57.5°	8322.5	6128.2	1473.8	531.7	336.1	238.3	205.2	199.8	190.0	183.2	181.8
60°	8571.8	5759.1	1033.1	468.3	282.4	213.5	184.6	181.8	169.4	159.8	157.0
62.5°	8617.3	5073.1	688.7	389.8	235.5	190.0	163.9	159.8	143.3	126.7	118.5
65°	8432.7	4092.3	476.6	304.4	201.1	165.3	140.5	132.2	114.3	97.8	92.2
67.5°	7848.6	2873.3	332.0	219.0	170.8	130.9	111.6	108.9	95.0	81.3	77.2
70°	6778.3	1637.7	221.8	163.9	135.0	89.5	88.1	90.9	77.2	66.1	60.6
72.5°	5197.1	749.3	137.8	119.8	92.2	60.6	70.2	71.6	59.2	49.6	44.1
75°	3059.3	320.9	86.8	77.2	46.8	40.0	50.9	52.4	40.0	31.7	27.6
77.5°	1041.3	121.3	55.1	45.4	23.4	22.0	33.1	33.1	22.0	12.4	9.6
80°	236.9	45.4	27.6	17.9	11.1	9.6	11.1	9.6	5.5	1.3	0.0
82.5°	67.4	17.9	11.1	6.9	4.1	4.1	1.3	0.0	0.0	0.0	0.0
85°	19.3	8.3	2.8	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	8.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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

(END OF REPORT)