

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: P969331

Luminaire Tested: **NAV-SB5D-740-U-SL2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969331
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-10)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-740-U-SL2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 55405.4 lumens
Efficiency: N/A
Efficacy: 151.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B4 - 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

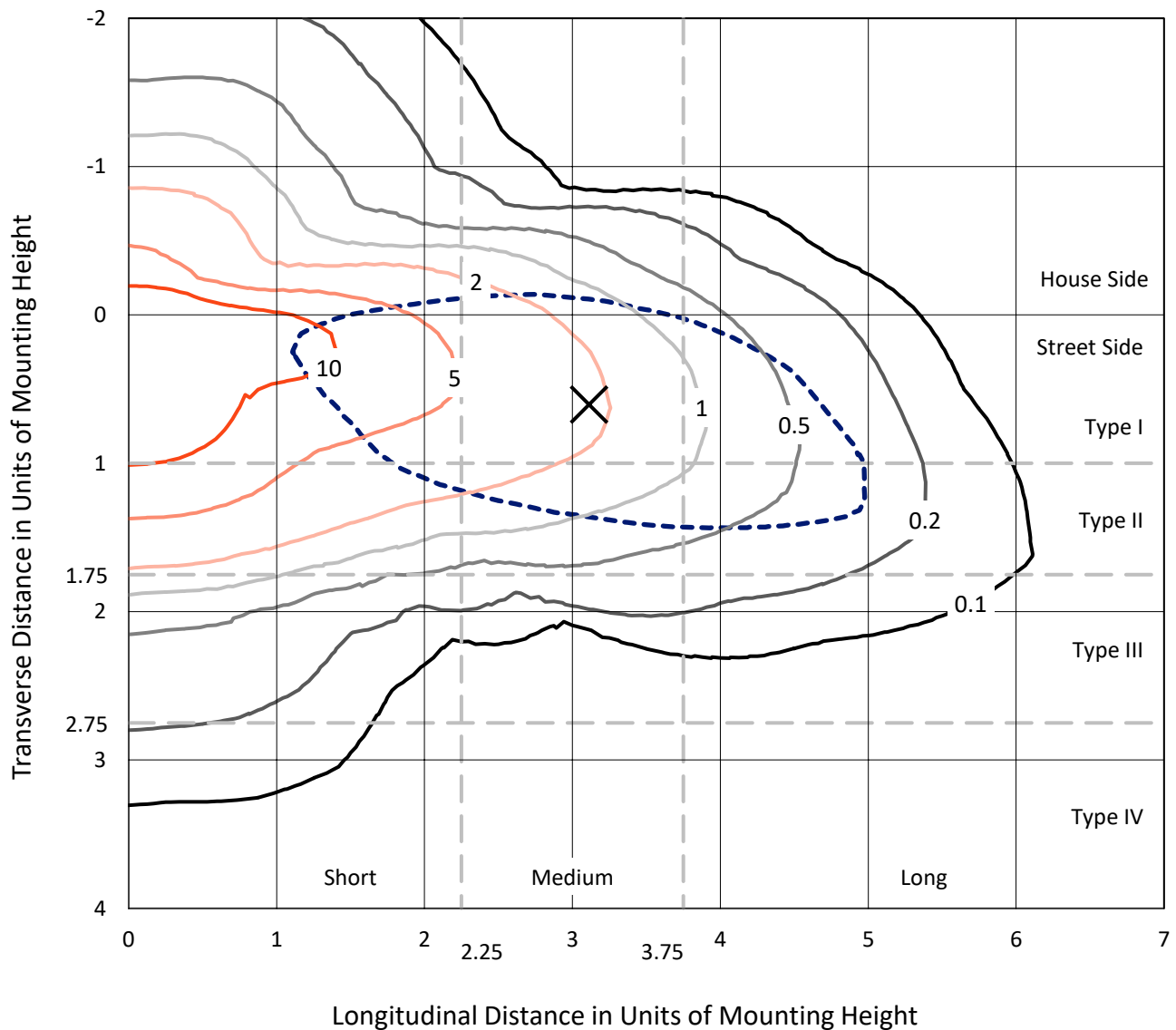


REPORT NUMBER: P969331

CATALOG NUMBER: NAV-SB5D-740-U-SL2

Iso-Footcandle Lines of Horizontal Illumination

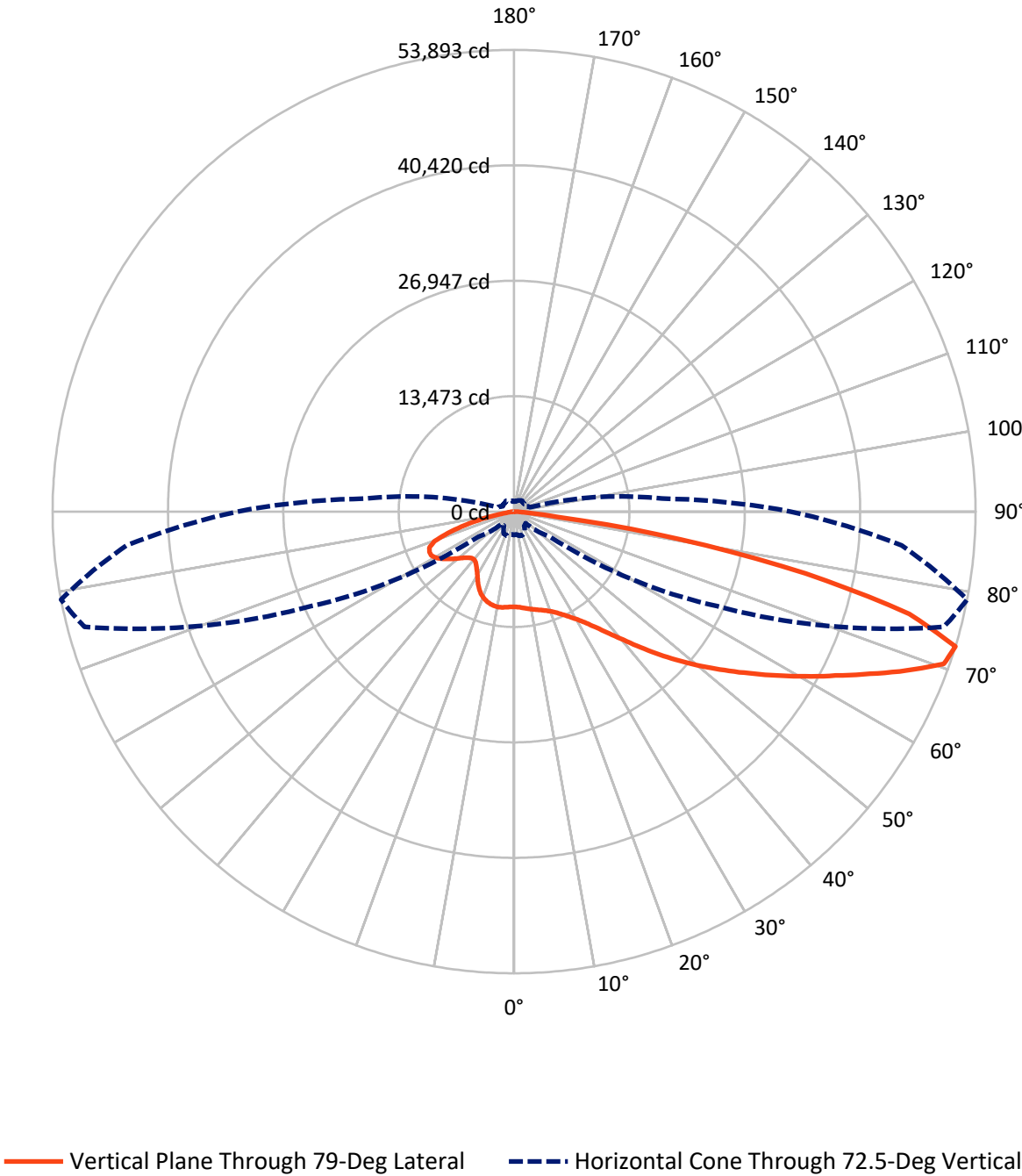
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 17.9 fc
Type II - Medium - N/A

REPORT NUMBER: P969331
CATALOG NUMBER: NAV-SB5D-740-U-SL2

Luminous Intensity Polar Plot



REPORT NUMBER: P969331

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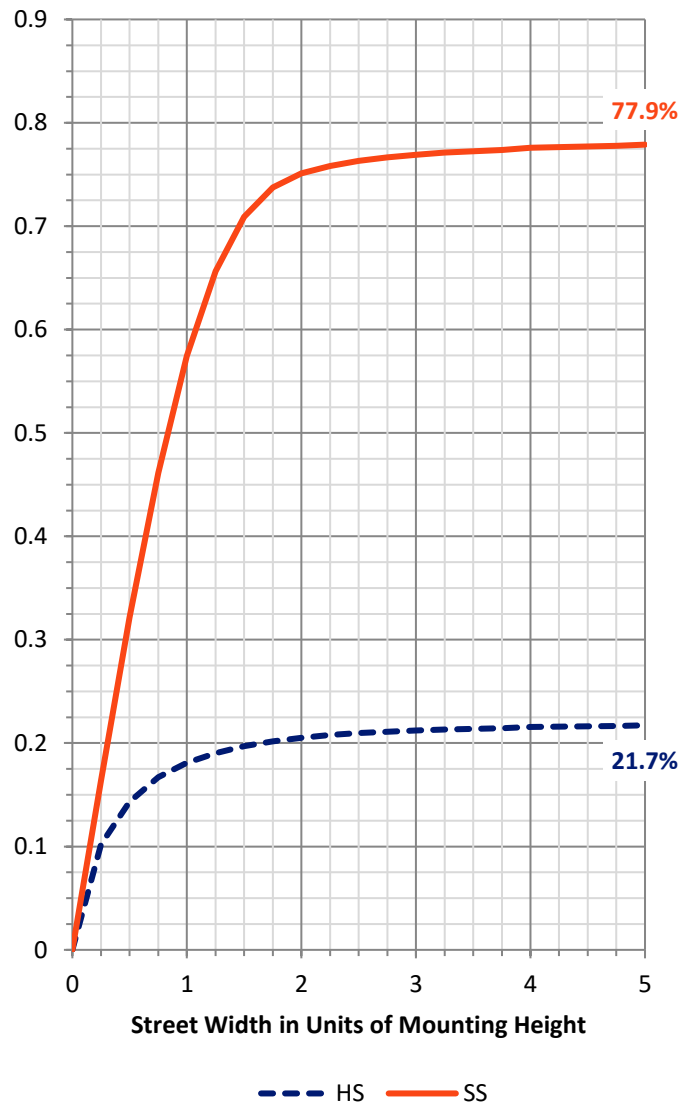
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12192.2	0.0	12192.2
	% Fixture	22.0	0.0	22.0
Street Side	Lumens	43213.1	0.0	43213.1
	% Fixture	78.0	0.0	78.0
Total	Lumens	55405.4	0.0	55405.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1009.6	1.8
10°-20°	2639.5	4.8
20°-30°	4259.1	7.7
30°-40°	6392.3	11.5
40°-50°	9067.8	16.4
50°-60°	11451.4	20.7
60°-70°	11630.5	21.0
70°-80°	7926.7	14.3
80°-90°	1028.4	1.9
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°	55405.4	100.0
0°-180°	55405.4	100.0

Coefficient of Utilization



REPORT NUMBER: P969331

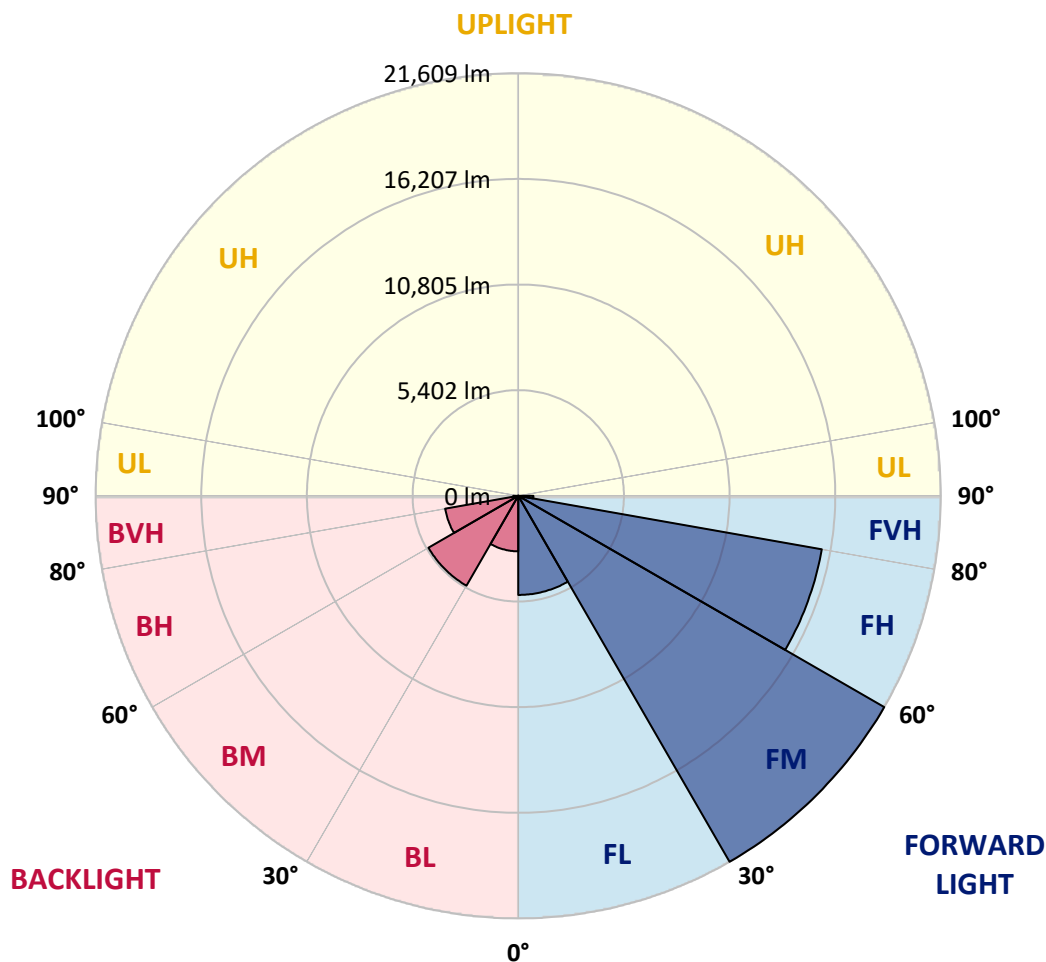
CATALOG NUMBER: NAV-SB5D-740-U-SL2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	5068.2	9.1			
FM	(30°-60°)	21609.2	39.0			
FH	(60°-80°)	15760.9	28.4			G5
FVH	(80°-90°)	774.7	1.4			G5
BL	(0°-30°)	2839.9	5.1	B4/5000		
BM	(30°-60°)	5302.3	9.6	B4/8500		
BH	(60°-80°)	3796.3	6.9	B4/5000		G4/5000
BVH	(80°-90°)	253.7	0.5			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type II Medium



REPORT NUMBER: P969331

CATALOG NUMBER: NAV-SB5D-740-U-SL2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	11122.1	11122.1	11122.1	11122.1	11122.1	11122.1	11122.1	11122.1	11122.1	11122.1	11122.1
2.5°	11127.9	11075.2	11107.4	11095.7	11110.4	11127.9	11133.9	11142.6	11171.9	11169.0	11166.0
5°	11104.5	11051.8	11095.7	11081.1	11119.2	11160.2	11195.4	11227.6	11274.5	11295.0	11265.7
7.5°	11054.7	11019.6	11063.4	11107.4	11177.8	11239.3	11289.1	11362.4	11429.8	11441.6	11462.1
10°	10764.6	10738.2	10840.7	10955.0	11148.5	11315.5	11423.9	11508.9	11582.2	11594.0	11623.3
12.5°	10462.7	10430.4	10544.8	10700.1	11013.6	11315.5	11544.2	11655.5	11720.0	11758.1	11802.1
15°	10412.9	10386.5	10451.0	10585.8	10846.7	11236.4	11626.2	11831.4	11887.0	11931.0	11948.5
17.5°	10653.1	10603.3	10629.8	10676.6	10829.0	11163.2	11690.6	12030.6	12115.6	12162.5	12162.5
20°	11210.0	11139.7	11098.7	11004.9	10978.5	11174.9	11684.8	12270.9	12382.3	12440.9	12455.6
22.5°	11951.5	11904.6	11816.7	11579.3	11321.4	11318.5	11796.2	12578.7	12786.8	12842.4	12807.3
25°	12848.3	12778.0	12666.5	12344.2	11848.9	11602.7	11983.7	12971.4	13320.2	13334.8	13232.2
27.5°	13879.9	13774.4	13622.0	13197.1	12528.9	12048.2	12270.9	13422.7	13932.6	13926.8	13715.8
30°	14967.3	14861.7	14700.6	14184.7	13343.6	12649.0	12669.5	13909.2	14659.4	14627.3	14266.8
32.5°	15761.4	15682.3	15650.1	15251.5	14281.4	13358.2	13126.7	14448.5	15556.3	15527.0	15022.9
35°	16371.0	16268.5	16306.5	16104.3	15304.3	14152.5	13686.5	15090.3	16646.5	16643.5	16016.4
37.5°	16974.7	16883.9	16916.1	16781.3	16250.9	15160.7	14369.4	15875.7	17997.6	18062.0	17218.1
40°	17525.8	17429.0	17557.9	17432.0	16986.5	16233.2	15146.0	16763.8	19562.5	19685.6	18671.6
42.5°	17856.9	17780.7	17994.7	17997.6	17625.4	17138.9	15998.8	17742.6	21373.8	21649.2	20459.4
45°	17971.2	17944.8	18267.2	18334.6	18191.0	17663.5	16766.6	18809.4	23325.6	23818.0	22496.2
47.5°	17848.1	17798.3	18243.8	18492.8	18607.1	17909.6	17402.7	19964.1	25318.5	26039.5	24717.8
50°	17226.8	17130.1	17792.5	18317.1	18724.4	18070.9	18044.5	21297.6	27584.0	28372.3	26950.9
52.5°	16110.2	16036.9	16790.1	17701.5	18466.5	18150.0	18765.4	22754.2	29735.1	30755.0	29239.9
55°	14682.9	14586.3	15415.6	16605.5	17824.6	18123.6	19486.4	24383.6	32273.2	33307.7	31605.0
57.5°	12420.4	12227.0	13276.2	14682.9	16778.4	18091.4	20236.7	26004.4	34852.2	36091.9	34128.3
60°	9120.4	8833.2	10119.8	11787.4	14732.7	17777.8	21165.7	27821.4	37947.0	39063.6	36883.2
62.5°	5310.4	5143.4	5984.6	7540.7	11104.5	15931.4	21687.4	29934.4	40989.1	42161.4	39591.1
65°	4123.6	4076.6	4149.9	4270.0	6180.9	11928.0	20078.4	31994.8	44857.7	45678.3	42413.5
67.5°	3771.8	3736.6	3768.9	3543.2	3135.9	6643.9	15884.5	32516.4	49001.7	49499.9	44884.0
70°	3352.8	3311.7	3417.2	3223.8	2467.7	3021.6	10263.4	30623.1	52298.8	53233.7	46762.7
72.5°	2731.4	2684.6	2930.7	2842.8	2077.9	1940.1	5155.1	26124.5	51952.9	53893.1	45417.4
75°	2098.4	2072.0	2365.1	2438.4	1693.9	1526.9	2473.5	19418.9	45719.3	47674.1	39142.7
77.5°	1629.4	1608.9	1758.4	2025.1	1365.7	1184.0	1521.0	12317.8	34453.6	34796.5	26974.4
80°	1222.1	1163.5	1301.2	1567.9	1063.8	864.6	1031.7	7183.2	21778.2	19741.4	11740.5
82.5°	765.0	735.6	849.9	1046.2	750.3	594.9	671.2	3968.2	8727.7	5140.5	2265.5
85°	436.6	425.0	463.1	597.9	407.3	342.9	384.0	1752.5	1594.3	1096.1	682.9
87.5°	175.9	169.9	211.0	266.7	149.4	126.0	134.8	422.0	351.7	325.3	225.7
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: P969331

CATALOG NUMBER: NAV-SB5D-740-U-SL2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	11122.1	11122.1	11122.1	11122.1	11122.1	11122.1	11122.1	11122.1	11122.1	11122.1	11122.1
2.5°	11154.4	11154.4	11113.3	11048.8	10975.6	10928.7	10852.5	10832.0	10752.9	10729.4	10767.5
5°	11289.1	11265.7	11139.7	10958.0	10708.9	10480.3	10228.3	10070.0	9847.3	9768.1	9826.7
7.5°	11459.1	11394.6	11177.8	10779.2	10257.5	9744.7	9211.3	8806.8	8420.0	8282.2	8299.8
10°	11614.5	11523.6	11154.4	10456.8	9554.1	8666.2	7816.2	7221.3	6770.0	6585.3	6626.3
12.5°	11769.8	11602.7	10999.0	9920.5	8554.8	7350.3	6444.7	5981.6	5703.2	5480.5	5553.8
15°	11916.3	11681.8	10758.7	9202.4	7458.7	6236.6	5568.4	5199.1	4976.4	4829.8	4856.2
17.5°	12086.3	11749.3	10398.2	8291.0	6415.4	5465.8	4920.7	4698.0	4654.0	4636.4	4648.2
20°	12323.7	11810.8	9923.4	7271.1	5647.5	4850.3	4569.0	4548.4	4545.6	4536.8	4566.1
22.5°	12578.7	11884.1	9296.2	6345.1	4993.9	4466.4	4416.6	4375.5	4349.2	4346.3	4378.5
25°	12880.6	11907.5	8510.8	5585.9	4437.1	4284.7	4226.1	4164.6	4146.9	4146.9	4164.6
27.5°	13173.6	11828.4	7596.5	4926.6	4123.6	4117.6	4041.5	4021.0	4018.0	4026.8	4050.3
30°	13466.7	11679.0	6687.9	4317.0	3941.8	3941.8	3915.4	3930.1	3941.8	3971.2	3991.7
32.5°	13862.3	11520.7	5928.8	3865.6	3783.6	3754.3	3780.6	3809.9	3821.7	3859.7	3892.0
35°	14442.6	11409.3	5325.1	3619.5	3619.5	3581.4	3596.0	3590.2	3563.7	3546.2	3587.2
37.5°	15210.5	11403.4	4826.9	3505.2	3481.7	3475.9	3478.7	3440.7	3338.1	3215.0	3217.9
40°	16133.6	11561.7	4443.0	3426.1	3408.4	3443.6	3426.1	3323.5	3042.1	2828.2	2822.3
42.5°	17373.3	12013.0	4196.8	3329.3	3382.1	3426.1	3355.6	3001.1	2810.5	2666.9	2661.1
45°	18832.8	12745.7	4070.8	3226.7	3332.3	3385.0	3045.1	2889.7	2737.3	2564.3	2552.7
47.5°	20485.8	13668.9	4041.5	3130.0	3220.9	3253.1	2913.2	2842.8	2669.9	2482.3	2467.7
50°	22285.2	14762.0	4120.6	3015.8	3059.6	2948.3	2869.2	2804.7	2625.9	2441.2	2420.7
52.5°	24146.2	15966.6	4278.9	2860.4	2898.5	2775.4	2851.5	2795.9	2599.5	2350.4	2332.9
55°	25975.0	17179.9	4431.3	2678.6	2734.4	2620.1	2801.7	2760.7	2479.4	2198.0	2183.4
57.5°	27833.1	18387.4	4580.7	2517.5	2576.1	2470.6	2722.6	2666.9	2344.6	2057.4	2051.5
60°	29764.5	19559.7	4651.0	2362.1	2403.2	2332.9	2602.5	2505.8	2192.2	1913.8	1905.0
62.5°	31572.7	20535.6	4536.8	2206.8	2233.2	2204.0	2444.2	2315.3	2039.7	1752.5	1749.7
65°	33386.8	21115.8	4185.1	2054.4	2060.2	2045.7	2221.5	2110.2	1861.0	1611.9	1594.3
67.5°	35030.9	21441.2	3625.3	1890.3	1875.6	1869.8	2013.4	1887.4	1688.1	1471.2	1453.7
70°	35379.7	20614.7	2769.5	1696.9	1696.9	1682.2	1784.8	1655.9	1497.6	1321.7	1315.9
72.5°	32314.2	17341.1	1966.6	1477.1	1500.5	1471.2	1556.3	1447.8	1304.2	1186.9	1151.8
75°	26057.0	12716.5	1430.2	1251.4	1292.4	1242.6	1321.7	1245.6	1122.5	1119.5	1008.2
77.5°	17903.8	7863.1	1037.5	1031.7	1060.9	996.4	1087.3	1046.2	934.9	885.1	829.4
80°	7640.4	3135.9	756.1	797.1	797.1	738.5	844.1	855.8	759.0	735.6	735.6
82.5°	1521.0	890.9	530.4	548.1	515.8	498.3	597.9	662.4	914.4	1017.0	1019.9
85°	457.2	328.2	319.5	298.9	263.7	266.7	351.7	665.2	820.6	468.9	404.5
87.5°	126.0	82.1	85.0	67.4	55.7	73.3	120.1	504.1	275.5	117.3	99.6
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)