

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: P963018

Luminaire Tested: **NAV-SB2D-740-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963018
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-740-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18684.7 lumens
Efficiency: N/A
Efficacy: 126.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G3

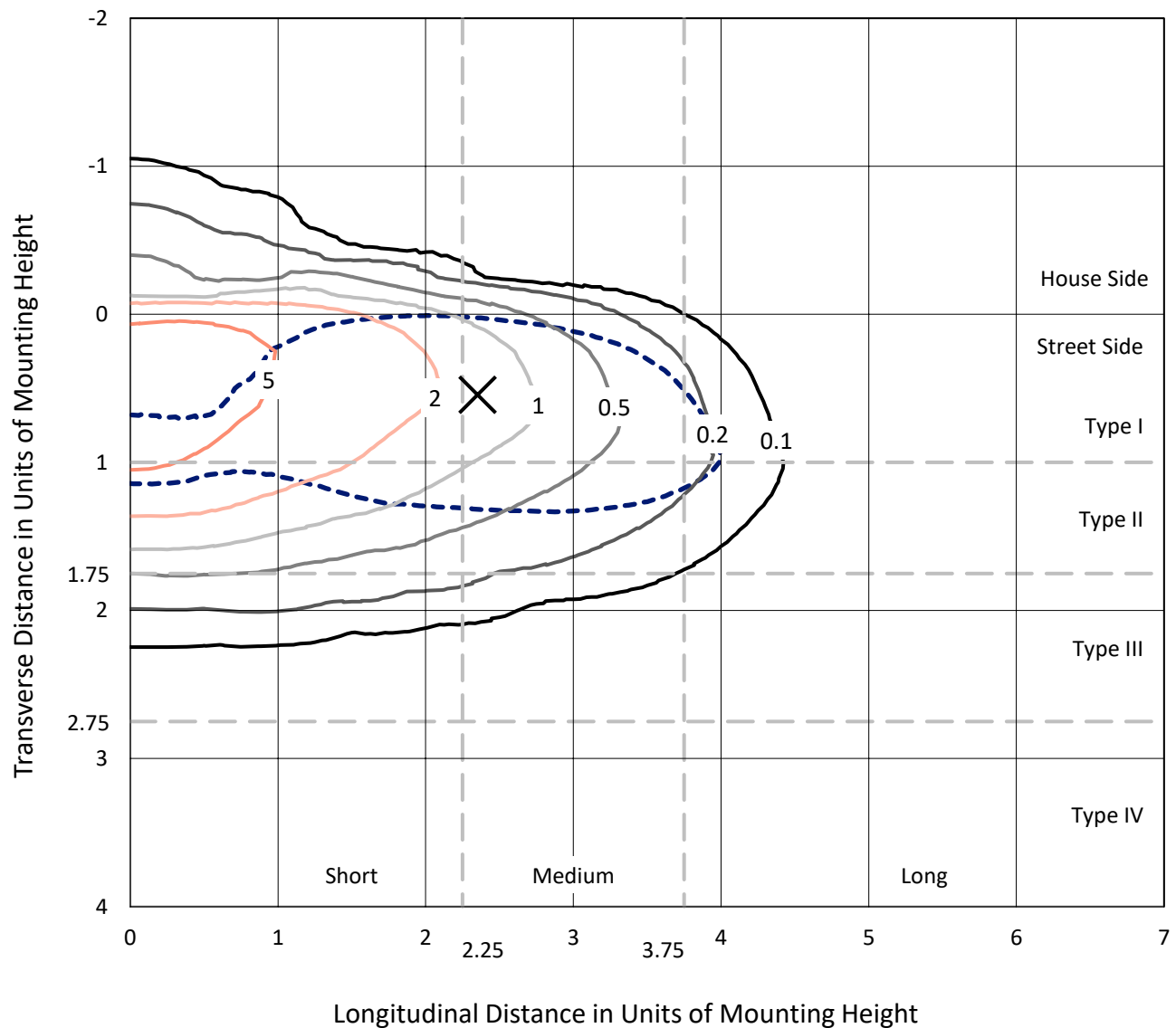
Input Watts (W): 147.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P963018
CATALOG NUMBER: NAV-SB2D-740-U-T2R-HSS

Iso-Footcandle Lines of Horizontal Illumination

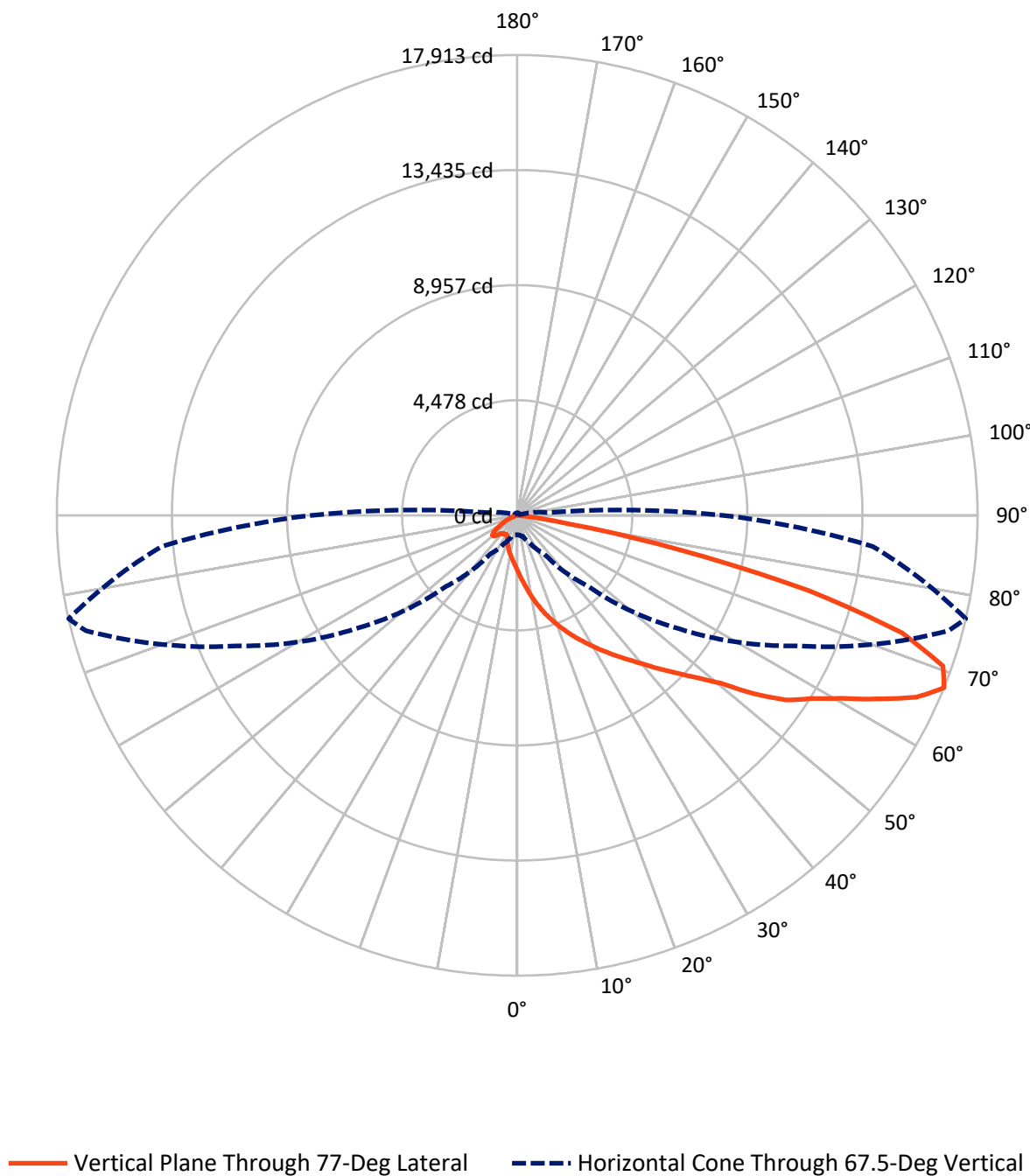
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.1 fc
Type II - Medium - N/A

REPORT NUMBER: P963018
CATALOG NUMBER: NAV-SB2D-740-U-T2R-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P963018

CATALOG NUMBER: NAV-SB2D-740-U-T2R-HSS

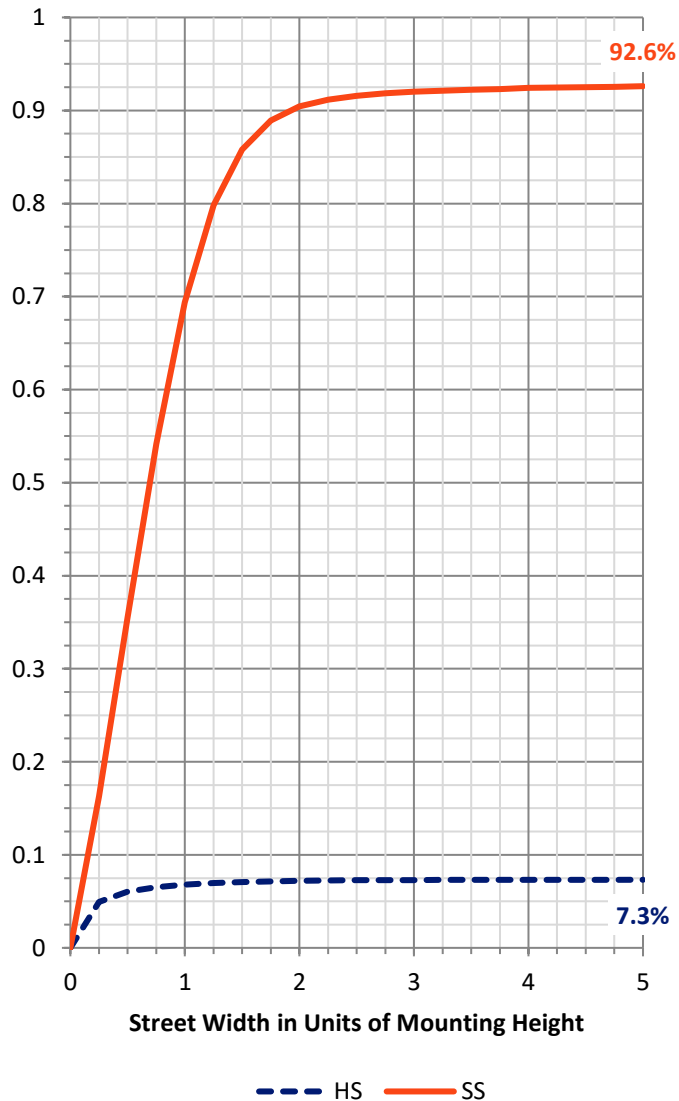
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1374.7	0.0	1374.7
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	17310.1	0.0	17310.1
	% Fixture	92.6	0.0	92.6
Total	Lumens	18684.7	0.0	18684.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.9	1.2
10°-20°	770.1	4.1
20°-30°	1486.1	8.0
30°-40°	2580.0	13.8
40°-50°	3746.0	20.0
50°-60°	4301.8	23.0
60°-70°	3734.7	20.0
70°-80°	1759.1	9.4
80°-90°	87.0	0.5
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°	18684.7	100.0
0°-180°	18684.7	100.0

Coefficient of Utilization



REPORT NUMBER: P963018

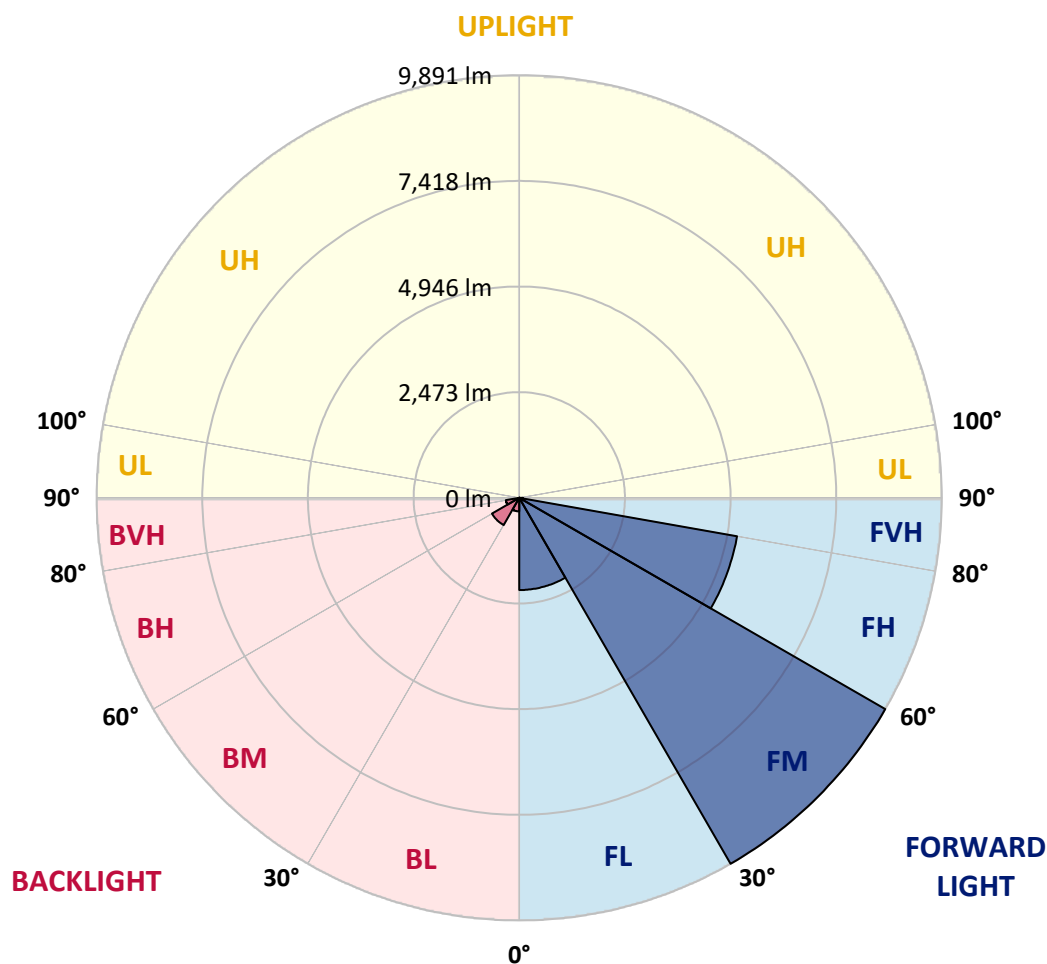
CATALOG NUMBER: NAV-SB2D-740-U-T2R-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2157.9	11.5			
FM	(30°-60°)	9891.2	52.9			
FH	(60°-80°)	5175.6	27.7			G3/7500
FVH	(80°-90°)	85.4	0.5			G1/100
BL	(0°-30°)	318.3	1.7	B1/500		
BM	(30°-60°)	736.6	3.9	B1/1000		
BH	(60°-80°)	318.2	1.7	B1/500		G1/500
BVH	(80°-90°)	1.6	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type II Medium



REPORT NUMBER: P963018

CATALOG NUMBER: NAV-SB2D-740-U-T2R-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2154.7	2154.7	2154.7	2154.7	2154.7	2154.7	2154.7	2154.7	2154.7	2154.7	2154.7
2.5°	2983.1	3001.6	2975.0	2923.9	2847.3	2797.4	2675.6	2560.8	2433.0	2392.5	2264.8
5°	3636.3	3652.5	3622.4	3566.7	3464.6	3367.1	3207.0	2966.9	2717.4	2637.3	2411.0
7.5°	4120.1	4129.4	4117.8	4066.8	3969.3	3859.0	3680.4	3396.1	3026.0	2937.9	2590.9
10°	4468.2	4498.4	4494.9	4475.2	4410.2	4320.9	4130.5	3806.8	3371.7	3258.1	2793.9
12.5°	4699.1	4732.7	4752.5	4796.6	4793.1	4736.2	4569.1	4226.9	3716.3	3582.9	3022.5
15°	4766.4	4802.3	4877.8	4979.9	5070.4	5099.4	4982.2	4638.7	4095.8	3925.2	3256.8
17.5°	4728.1	4783.8	4874.3	5035.6	5234.0	5365.1	5352.3	5036.7	4440.4	4245.4	3486.6
20°	4812.8	4866.2	4936.9	5072.7	5303.6	5541.5	5636.6	5417.3	4782.6	4578.5	3727.9
22.5°	5281.5	5272.3	5279.3	5301.3	5439.4	5674.9	5871.0	5763.1	5121.4	4912.6	3983.3
25°	6024.1	5982.3	5911.6	5792.1	5757.2	5871.0	6075.2	6069.3	5478.8	5254.9	4244.3
27.5°	6875.8	6868.8	6702.9	6415.2	6252.7	6208.6	6306.1	6367.6	5832.7	5593.6	4506.5
30°	7691.4	7710.0	7486.1	7165.9	6867.6	6694.8	6606.5	6650.7	6192.3	5959.1	4776.8
32.5°	8401.5	8421.3	8177.6	7802.8	7433.8	7225.0	7039.4	6930.3	6584.5	6330.4	5073.9
35°	9001.3	9021.1	8741.5	8327.3	7933.9	7744.8	7534.8	7236.6	6979.0	6742.3	5404.5
37.5°	9537.4	9531.6	9156.8	8739.2	8352.8	8203.1	8092.9	7613.7	7385.1	7156.6	5771.2
40°	9854.1	9878.5	9558.3	9097.7	8723.0	8613.9	8606.9	8081.3	7853.9	7632.3	6172.7
42.5°	9947.0	9990.0	9757.9	9379.7	9039.7	8921.3	9103.5	8587.1	8399.2	8183.4	6626.3
45°	9779.9	9821.7	9716.1	9453.9	9255.4	9178.9	9530.4	9111.6	8981.7	8768.2	7138.0
47.5°	9292.6	9344.8	9370.3	9314.7	9312.3	9390.0	9913.4	9663.9	9673.1	9455.0	7730.9
50°	8349.3	8437.5	8671.9	8869.1	9174.3	9557.2	10285.8	10262.6	10452.8	10265.0	8503.6
52.5°	6634.4	6759.8	7567.3	8106.8	8792.6	9525.8	10695.4	11223.3	11820.8	11545.9	9593.1
55°	5331.4	5331.4	5988.2	6997.6	8047.7	9319.3	10874.0	11847.6	12752.5	12687.6	10360.1
57.5°	4346.4	4398.6	4817.4	5709.7	6969.8	8827.3	10984.3	12239.7	13503.2	13455.7	11109.6
60°	2682.5	2795.1	3586.4	4467.1	5743.4	7951.3	10914.7	12636.5	14414.1	14452.3	12012.3
62.5°	1510.6	1552.5	1905.2	3214.0	4465.9	6773.7	10382.1	12858.1	15579.0	15741.4	12942.8
65°	1043.0	1063.9	1199.8	2000.3	3095.6	5392.9	9341.3	12720.0	16746.1	17074.6	13731.8
67.5°	757.7	768.1	852.8	1221.8	1836.7	3910.1	7710.0	12023.9	17364.6	17913.4	13882.6
70°	582.4	589.4	650.9	802.9	1084.9	2413.4	5599.5	10639.7	16916.7	17572.3	13109.9
72.5°	473.3	480.3	527.9	594.1	719.3	1427.1	3393.8	8640.5	14939.7	15647.4	11160.6
75°	399.1	408.5	451.3	494.3	563.9	916.7	1591.9	6017.2	11234.9	11699.0	7761.1
77.5°	221.6	204.2	366.6	409.6	475.7	580.2	744.9	3541.2	6292.2	6420.9	3443.7
80°	138.1	142.7	291.2	329.5	365.5	292.4	341.1	1363.4	2181.3	2072.2	667.2
82.5°	8.1	18.6	224.0	237.9	250.6	125.4	128.7	463.0	525.6	482.7	118.4
85°	0.0	0.0	102.1	82.4	87.0	36.0	37.1	107.9	70.8	76.6	23.2
87.5°	0.0	0.0	0.0	2.4	0.0	3.5	7.0	9.3	3.5	4.6	8.1
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: P963018

CATALOG NUMBER: NAV-SB2D-740-U-T2R-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2154.7	2154.7	2154.7	2154.7	2154.7	2154.7	2154.7	2154.7	2154.7	2154.7	2154.7
2.5°	2183.7	2102.4	1937.7	1776.3	1645.2	1523.5	1436.4	1354.0	1312.3	1309.9	1307.6
5°	2249.8	2079.2	1749.7	1458.5	1224.1	1036.2	914.3	827.3	783.2	768.1	765.8
7.5°	2342.6	2086.2	1585.0	1180.0	903.8	742.6	672.9	645.1	635.8	625.4	623.1
10°	2459.8	2102.4	1437.6	950.3	712.4	631.2	603.3	591.7	584.8	577.8	575.5
12.5°	2590.9	2117.4	1291.4	788.9	626.6	584.8	565.1	551.1	541.8	533.7	531.4
15°	2718.5	2126.8	1139.4	676.4	582.4	548.8	527.9	512.8	500.1	490.8	489.6
17.5°	2845.0	2139.6	996.7	609.2	546.5	512.8	492.0	473.3	463.0	452.5	451.3
20°	2985.4	2137.2	862.1	561.6	510.6	476.8	454.8	437.5	427.0	415.3	414.2
22.5°	3115.3	2125.6	743.7	521.0	473.3	440.9	416.6	399.1	388.7	379.5	378.2
25°	3265.0	2116.3	645.1	483.8	438.6	406.1	379.5	363.2	351.6	343.5	342.2
27.5°	3408.8	2102.4	573.2	450.2	405.0	373.6	348.1	329.5	319.1	313.2	313.2
30°	3550.4	2098.9	546.5	417.7	374.7	343.5	318.0	300.5	292.4	290.1	288.9
32.5°	3721.0	2108.2	558.1	406.1	347.0	315.6	291.2	278.5	270.3	270.3	270.3
35°	3903.2	2105.9	575.5	416.6	328.3	287.7	269.2	261.1	253.0	253.0	253.0
37.5°	4131.8	2109.3	589.4	434.0	321.4	264.6	254.1	243.6	239.0	239.0	239.0
40°	4472.9	2224.2	582.4	449.1	319.1	248.3	227.4	224.0	220.5	220.5	220.5
42.5°	4890.6	2473.7	591.7	450.2	318.0	236.7	208.9	215.8	207.7	206.5	205.4
45°	5347.7	2746.4	650.9	425.8	316.7	230.9	199.6	207.7	195.0	195.0	195.0
47.5°	5801.4	3016.7	711.2	391.0	313.2	229.7	191.5	186.8	183.4	184.5	184.5
50°	6426.7	3237.2	734.4	343.5	305.1	227.4	176.4	177.5	175.2	177.5	177.5
52.5°	7107.9	3283.6	706.6	290.1	282.0	220.5	165.9	170.6	169.4	171.7	171.7
55°	7532.5	3233.7	583.6	241.4	246.0	192.6	155.5	164.7	164.7	164.7	164.7
57.5°	7971.0	3021.4	414.2	196.1	204.2	157.7	146.2	159.0	157.7	156.6	156.6
60°	8286.6	2677.9	272.6	161.2	162.5	130.0	135.7	149.6	148.5	142.7	142.7
62.5°	8522.2	2298.5	175.2	136.9	124.1	117.2	124.1	135.7	131.1	118.4	116.0
65°	8495.5	1772.9	134.6	117.2	102.1	102.1	107.9	118.4	104.4	83.5	81.2
67.5°	8000.0	1199.8	111.4	98.6	85.9	84.7	89.4	98.6	89.4	70.8	68.5
70°	7114.8	784.3	89.4	76.6	68.5	62.6	72.0	84.7	75.4	56.9	54.5
72.5°	5774.6	478.1	67.3	55.7	49.9	40.6	56.9	69.6	60.4	41.8	39.5
75°	3736.0	243.6	46.4	36.0	26.6	24.4	41.8	52.2	41.8	25.5	22.0
77.5°	1429.5	102.1	25.5	16.2	13.9	11.6	23.2	31.4	17.4	5.8	4.6
80°	275.0	42.9	12.8	8.1	7.0	4.6	3.5	2.4	0.0	0.0	0.0
82.5°	47.6	13.9	4.6	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	16.2	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.8	0.0	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)