

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: P967333

Luminaire Tested: **NAV-SB4D-827-U-T3R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967333
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-827-U-T3R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30263.1 lumens
Efficiency: N/A
Efficacy: 103.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G4

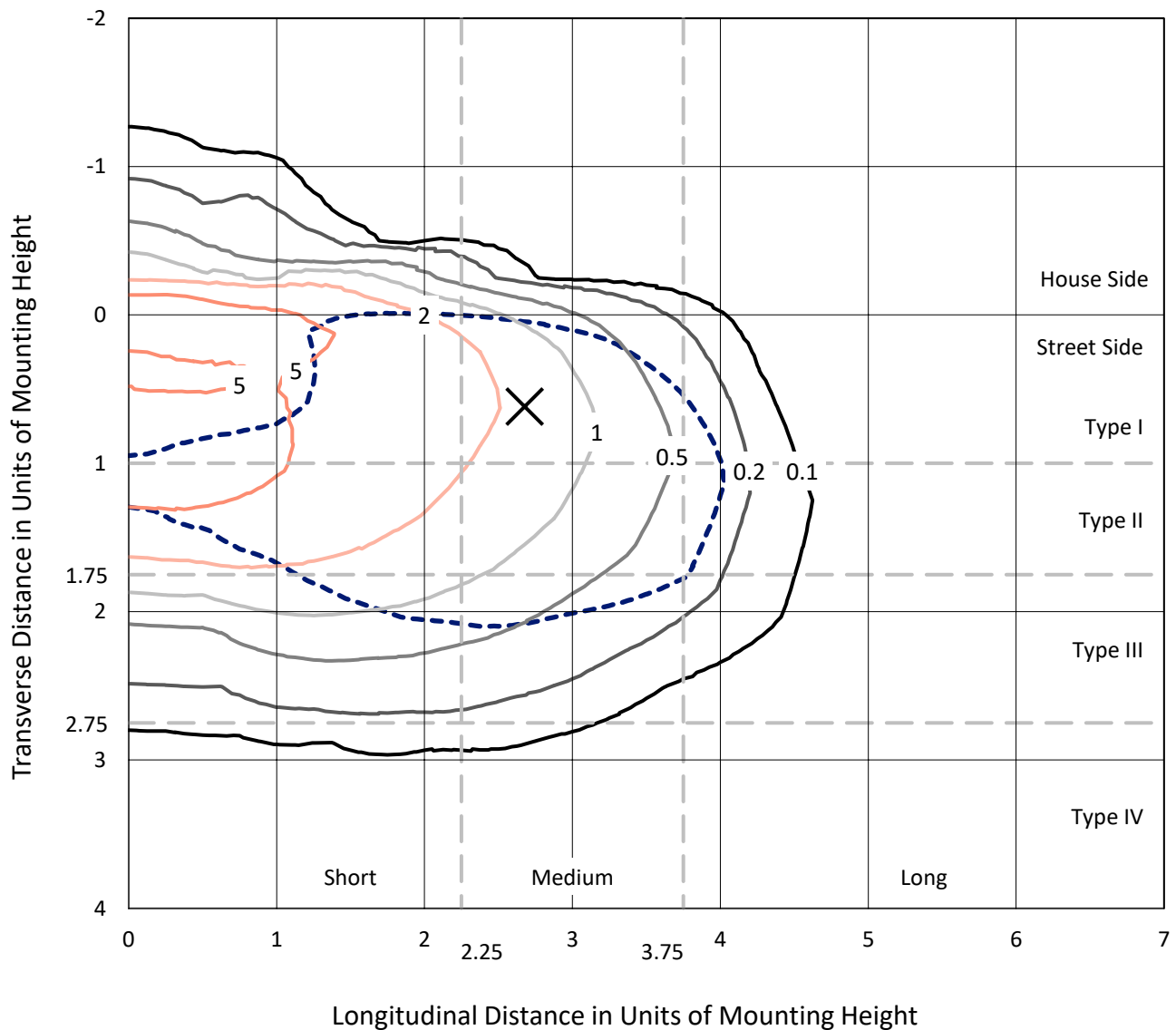
Input Watts (W): 293.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P967333
 CATALOG NUMBER: NAV-SB4D-827-U-T3R-HSS

Iso-Footcandle Lines of Horizontal Illumination

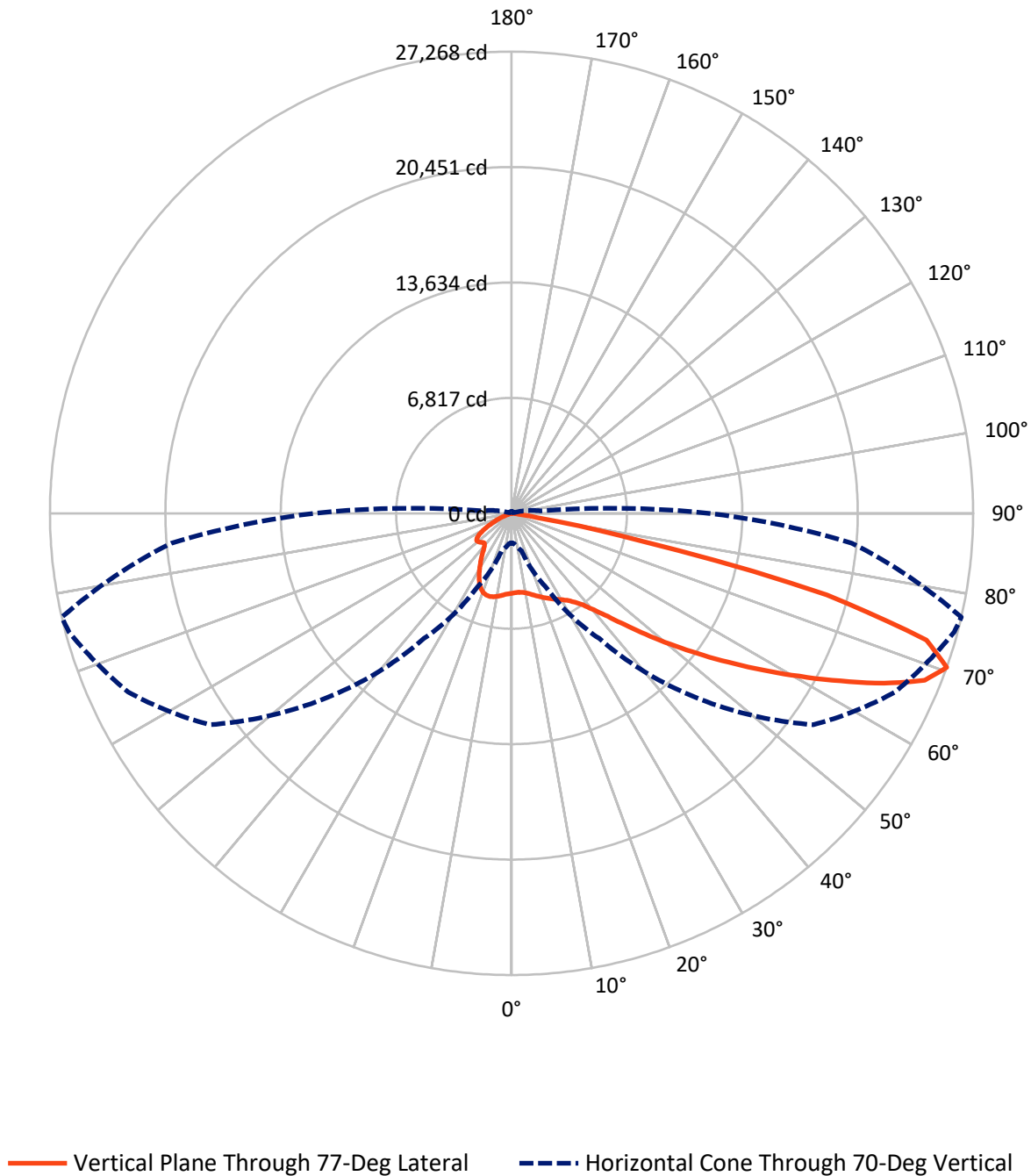
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.9 fc
 Type III - Medium - N/A

REPORT NUMBER: P967333
CATALOG NUMBER: NAV-SB4D-827-U-T3R-HSS

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3190.2	0.0	3190.2
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	27073.0	0.0	27073.0
	% Fixture	89.5	0.0	89.5
Total	Lumens	30263.1	0.0	30263.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	406.8	1.3
10°-20°	965.8	3.2
20°-30°	1493.8	4.9
30°-40°	2710.6	9.0
40°-50°	5116.5	16.9
50°-60°	7392.9	24.4
60°-70°	7869.5	26.0
70°-80°	4170.3	13.8
80°-90°	136.9	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°	30263.1	100.0
0°-180°	30263.1	100.0

Coefficient of Utilization



REPORT NUMBER: P967333

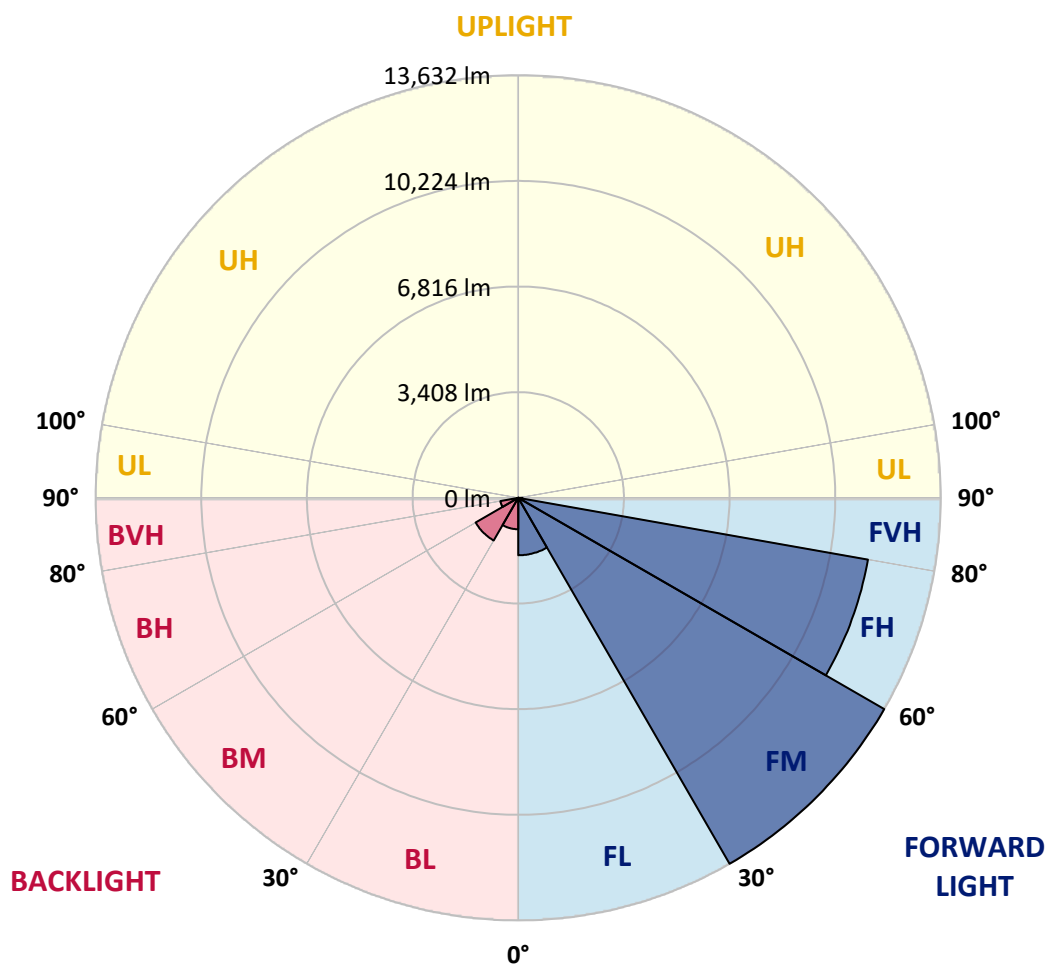
CATALOG NUMBER: NAV-SB4D-827-U-T3R-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1852.8	6.1			
FM	(30°-60°)	13631.9	45.0			
FH	(60°-80°)	11455.0	37.9			G4/12000
FVH	(80°-90°)	133.2	0.4			G2/225
BL	(0°-30°)	1013.6	3.3	B3/2500		
BM	(30°-60°)	1588.1	5.2	B2/2500		
BH	(60°-80°)	584.8	1.9	B2/1000		G2/1000
BVH	(80°-90°)	3.7	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Medium



REPORT NUMBER: P967333

CATALOG NUMBER: NAV-SB4D-827-U-T3R-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	4720.5	4720.5	4720.5	4720.5	4720.5	4720.5	4720.5	4720.5	4720.5	4720.5	4720.5
2.5°	4431.9	4472.1	4466.3	4493.1	4502.6	4540.9	4579.1	4630.6	4688.0	4686.1	4724.3
5°	4181.6	4221.7	4231.2	4267.6	4313.4	4372.6	4451.1	4554.3	4661.3	4678.4	4754.9
7.5°	3885.4	3927.4	3952.2	4024.9	4108.9	4231.2	4359.3	4510.3	4688.0	4712.8	4860.0
10°	3589.1	3627.4	3659.9	3763.0	3896.8	4078.4	4286.7	4504.6	4743.4	4779.8	4988.1
12.5°	3405.7	3442.0	3478.2	3568.1	3734.4	3956.1	4238.9	4531.3	4835.1	4886.8	5162.0
15°	3340.7	3373.2	3401.8	3482.1	3636.9	3889.2	4229.4	4586.8	4951.8	5020.6	5372.2
17.5°	3350.2	3367.4	3386.5	3447.7	3598.7	3858.6	4246.6	4682.3	5089.3	5150.5	5582.5
20°	3405.7	3415.2	3417.1	3459.2	3592.9	3854.7	4280.9	4774.0	5219.3	5301.5	5790.7
22.5°	3476.4	3480.2	3476.4	3505.0	3629.2	3883.4	4326.8	4884.8	5364.5	5441.0	6001.0
25°	3807.0	3734.4	3642.6	3587.2	3690.4	3938.9	4395.6	5033.9	5523.2	5597.7	6205.5
27.5°	4833.3	4624.9	4296.2	3927.4	3816.5	4019.1	4491.1	5184.9	5683.7	5750.6	6425.2
30°	6499.7	6226.5	5668.5	4837.1	4221.7	4187.3	4615.4	5335.8	5853.8	5926.4	6660.3
32.5°	8170.1	8103.2	7459.1	6308.7	5133.3	4561.9	4821.8	5540.3	6079.3	6136.7	6977.6
35°	9859.6	9723.9	9196.4	8059.3	6538.0	5324.5	5165.8	5808.0	6375.5	6440.5	7440.1
37.5°	11153.3	11071.2	10744.4	9807.9	8204.5	6501.7	5754.5	6222.7	6805.6	6878.2	8032.5
40°	12296.2	12258.0	12147.2	11529.9	10067.9	8042.0	6669.9	6864.8	7401.8	7487.8	8758.7
42.5°	13194.5	13284.3	13347.3	13175.4	11988.5	9800.3	7900.6	7766.8	8233.2	8321.1	9683.7
45°	14113.7	14144.3	14398.5	14646.9	13895.8	11638.8	9288.1	8823.7	9267.1	9376.0	10792.1
47.5°	14704.2	14826.6	15273.8	15711.4	15499.3	13462.0	10778.8	10071.6	10465.4	10669.8	12034.4
50°	14748.2	14979.5	15594.9	16357.4	16667.0	15197.4	12399.4	11493.5	11912.1	12137.6	13360.8
52.5°	14016.3	14375.5	15329.2	16445.3	17297.7	16667.0	14075.5	12915.4	13452.5	13746.8	14736.7
55°	10746.3	11216.5	14329.7	15967.6	17322.5	17781.2	15707.6	14396.5	15168.7	15501.2	16223.6
57.5°	9362.7	9599.6	11266.2	15138.1	16862.0	18230.3	17183.0	15807.0	17035.8	17448.7	17628.3
60°	7789.8	8101.3	9448.7	13781.2	16237.0	18274.2	18486.4	17626.4	19059.8	19524.1	18916.4
62.5°	5293.8	5632.1	6971.8	11449.6	15382.7	18253.2	19554.7	19499.3	21309.1	21807.9	20007.7
65°	3279.5	3491.7	4374.6	9349.2	14188.3	18276.2	20672.7	21773.6	23682.7	24189.2	20852.4
67.5°	2591.5	2689.0	3149.5	7178.2	12130.0	17760.2	21788.8	23912.1	25916.9	26318.2	21110.4
70°	1741.1	1800.3	2291.5	4812.3	9024.4	15378.9	21767.8	24986.1	27067.4	27268.1	20170.2
72.5°	917.4	963.2	1339.7	2228.4	5450.5	10931.7	18348.8	23701.9	25922.7	25620.7	17240.3
75°	458.7	535.2	902.1	1131.4	2327.8	6096.5	11394.2	18687.1	20403.2	19233.6	11061.6
77.5°	347.8	420.5	745.4	745.4	810.4	2052.6	4825.6	10192.1	9400.9	7828.0	3247.0
80°	221.7	286.7	651.7	563.8	338.2	521.7	1257.6	2855.2	1997.1	1519.4	590.5
82.5°	130.0	187.3	542.7	372.7	189.2	193.0	355.5	607.7	517.9	403.2	181.5
85°	51.6	122.3	372.7	147.2	74.5	47.8	107.0	130.0	107.0	80.3	45.8
87.5°	0.0	28.7	65.0	0.0	5.7	3.8	7.7	9.5	9.5	7.7	15.3
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: P967333

CATALOG NUMBER: NAV-SB4D-827-U-T3R-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4720.5	4720.5	4720.5	4720.5	4720.5	4720.5	4720.5	4720.5	4720.5	4720.5	4720.5
2.5°	4741.5	4745.3	4756.8	4758.8	4732.0	4697.6	4684.1	4678.4	4655.5	4653.6	4657.4
5°	4798.8	4816.1	4798.8	4749.1	4630.6	4464.4	4338.3	4235.1	4141.4	4112.7	4095.6
7.5°	4913.5	4930.8	4879.1	4684.1	4386.1	4055.4	3757.2	3547.1	3357.9	3287.2	3258.5
10°	5077.8	5100.8	4938.3	4544.6	4017.2	3485.9	2981.4	2625.9	2348.8	2236.0	2188.3
12.5°	5284.3	5293.8	4970.8	4332.6	3537.5	2778.8	2064.0	1683.7	1437.2	1345.4	1316.8
15°	5511.7	5498.3	4974.6	4043.9	2883.9	1964.6	1347.4	1106.6	1007.2	976.6	976.6
17.5°	5750.6	5695.2	4898.3	3627.4	2167.3	1343.6	999.5	942.2	925.0	917.4	915.4
20°	5985.7	5861.5	4758.8	3082.7	1555.6	1003.4	907.7	890.6	881.0	877.2	873.4
22.5°	6199.7	5987.5	4519.8	2450.1	1129.4	886.7	858.1	842.9	825.6	817.9	816.1
25°	6408.0	6060.2	4183.4	1859.6	903.9	829.4	806.5	777.9	754.9	745.4	741.5
27.5°	6610.6	6106.0	3763.0	1376.1	806.5	775.9	733.9	693.7	676.5	672.7	668.9
30°	6826.6	6121.4	3285.2	1026.2	747.2	709.0	647.9	602.0	592.4	594.4	594.4
32.5°	7090.3	6144.3	2803.7	840.9	697.6	628.7	556.2	508.4	500.7	508.4	506.5
35°	7405.6	6190.2	2339.3	774.0	653.6	546.6	468.2	428.1	420.5	426.2	424.2
37.5°	7833.8	6264.7	1905.4	760.7	617.3	477.8	393.7	361.2	361.2	363.2	361.2
40°	8403.3	6463.4	1517.4	751.1	598.2	426.2	332.5	319.2	324.9	328.7	328.7
42.5°	9097.0	6885.8	1255.6	739.6	577.2	403.2	302.0	296.2	305.8	309.7	309.7
45°	9874.8	7420.9	1163.9	720.5	558.0	418.5	288.5	281.0	292.4	294.3	296.2
47.5°	10679.4	7944.6	1152.4	699.5	538.9	441.5	284.7	267.5	281.0	282.8	284.7
50°	11493.5	8286.7	1163.9	667.0	508.4	441.5	286.7	254.2	265.7	271.4	273.3
52.5°	12313.4	8443.4	1156.2	596.2	454.9	414.7	286.7	242.7	254.2	258.0	258.0
55°	13108.4	8412.8	1039.7	491.2	386.0	367.0	279.0	233.2	240.8	242.7	242.7
57.5°	13737.3	7986.6	823.7	382.2	313.4	305.8	254.2	221.7	227.4	225.5	225.5
60°	14066.0	7050.2	588.7	294.3	246.5	240.8	223.6	206.4	210.2	200.7	198.7
62.5°	14069.8	5811.7	393.7	233.2	196.8	191.2	191.2	185.4	181.5	162.5	156.7
65°	13769.7	4437.6	261.8	185.4	158.7	149.0	160.5	158.7	145.2	118.5	114.7
67.5°	13089.4	2908.7	198.7	145.2	122.3	116.5	128.0	133.8	124.2	99.4	97.5
70°	11690.4	1693.3	164.3	112.7	91.7	86.0	103.2	114.7	103.2	80.3	76.5
72.5°	9710.4	913.5	133.8	84.0	63.0	57.3	82.2	93.7	82.2	59.2	57.3
75°	6301.0	489.2	103.2	55.5	32.5	36.3	61.2	68.8	57.3	38.2	34.4
77.5°	2115.6	216.0	65.0	26.8	15.3	15.3	36.3	42.0	26.8	13.4	11.5
80°	472.0	89.8	26.8	11.5	5.7	5.7	7.7	7.7	3.8	0.0	0.0
82.5°	154.8	36.3	11.5	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	59.2	13.4	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	23.0	1.9	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)