

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: P884838

Luminaire Tested: **NAV-SB5D-830-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884838
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-830-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35435 lumens
Efficiency: N/A
Efficacy: 97.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

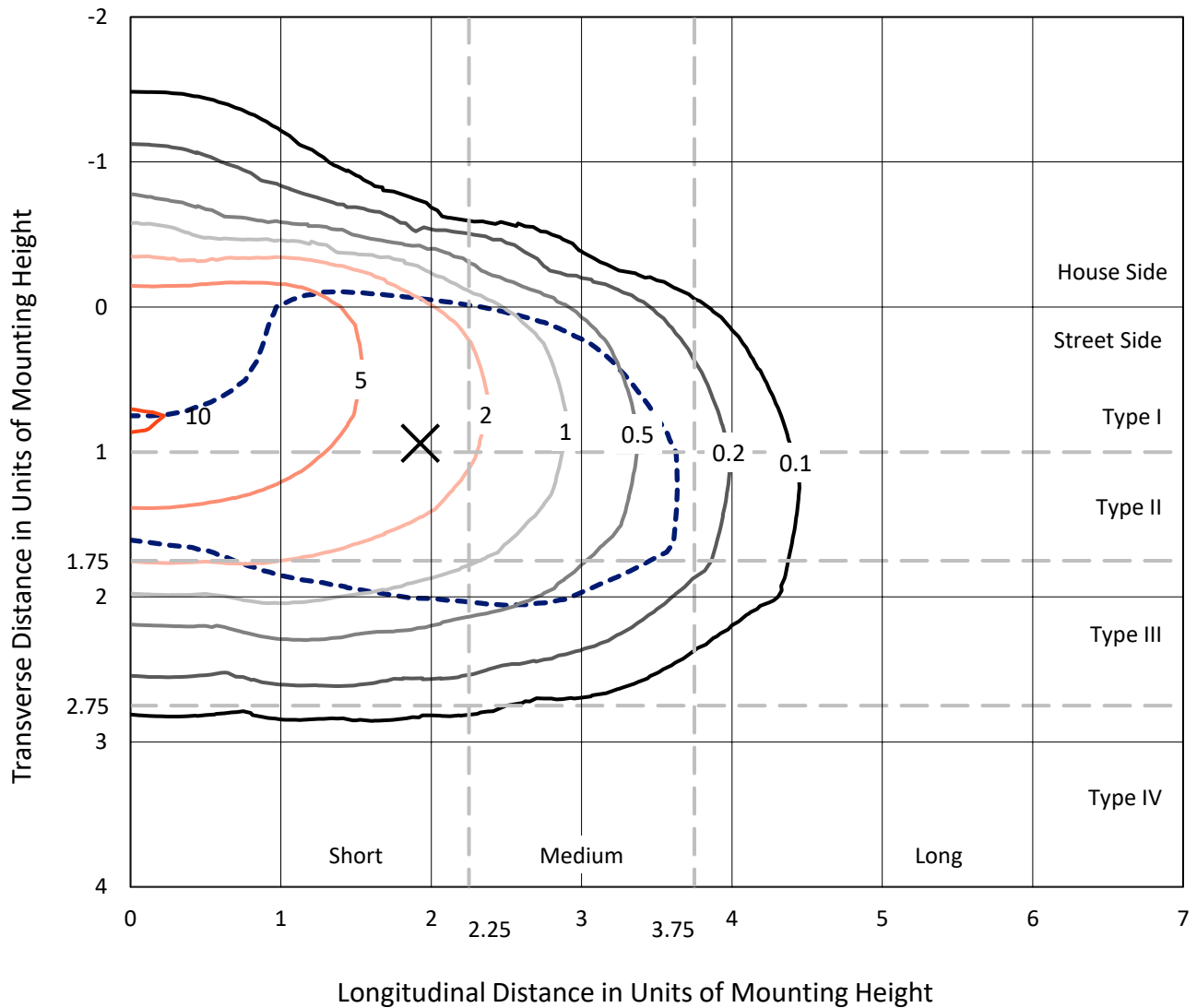
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

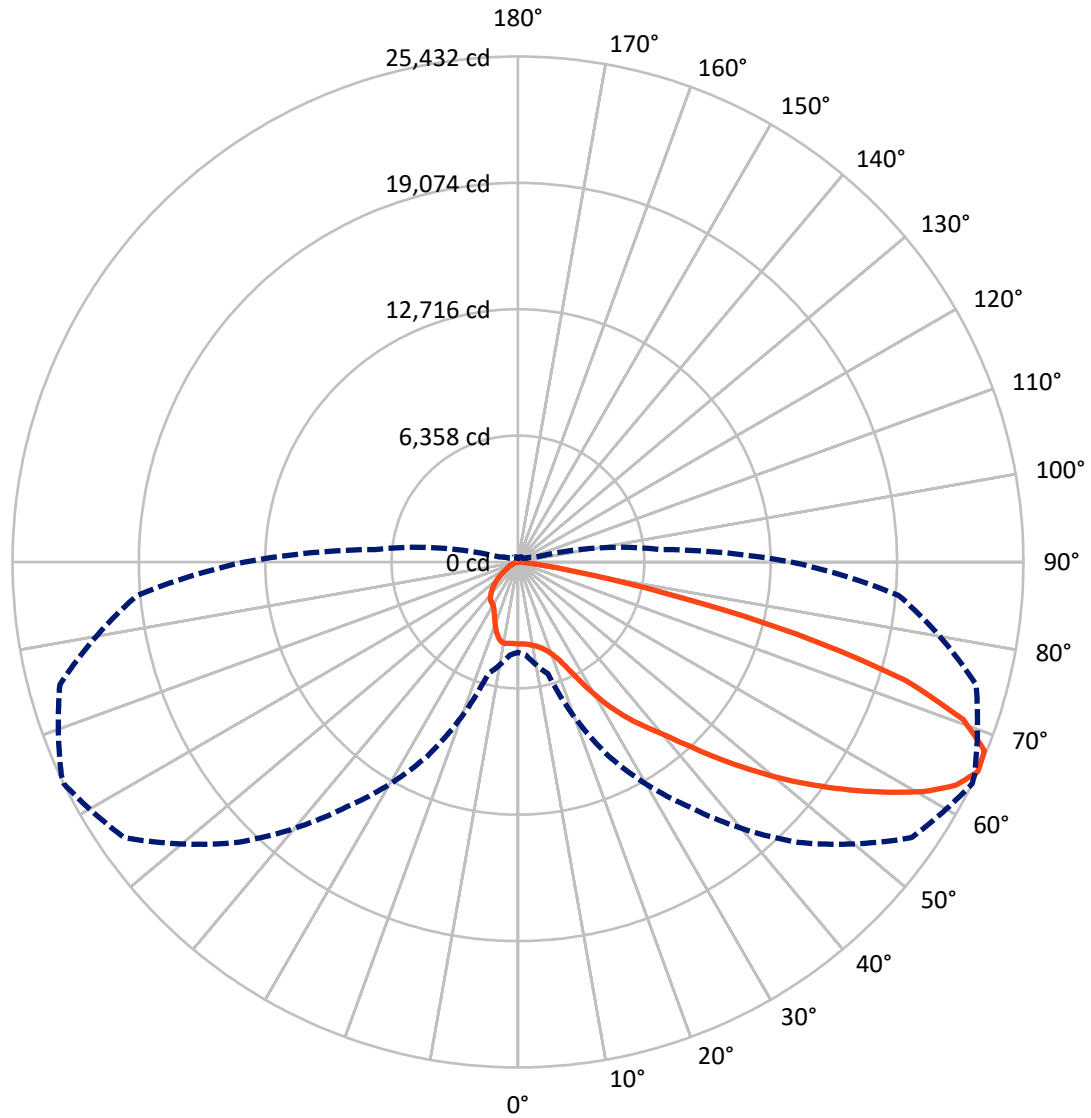
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.4 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4738.7	0.0	4738.7
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	30696.3	0.0	30696.3
	% Fixture	86.6	0.0	86.6
Total	Lumens	35435.0	0.0	35435.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	380.2	1.1
10°-20°	1031.3	2.9
20°-30°	1954.3	5.5
30°-40°	3954.6	11.2
40°-50°	6736.6	19.0
50°-60°	9161.3	25.9
60°-70°	8602.9	24.3
70°-80°	3446.7	9.7
80°-90°	167.0	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°	35435.0	100.0
0°-180°	35435.0	100.0

Coefficient of Utilization



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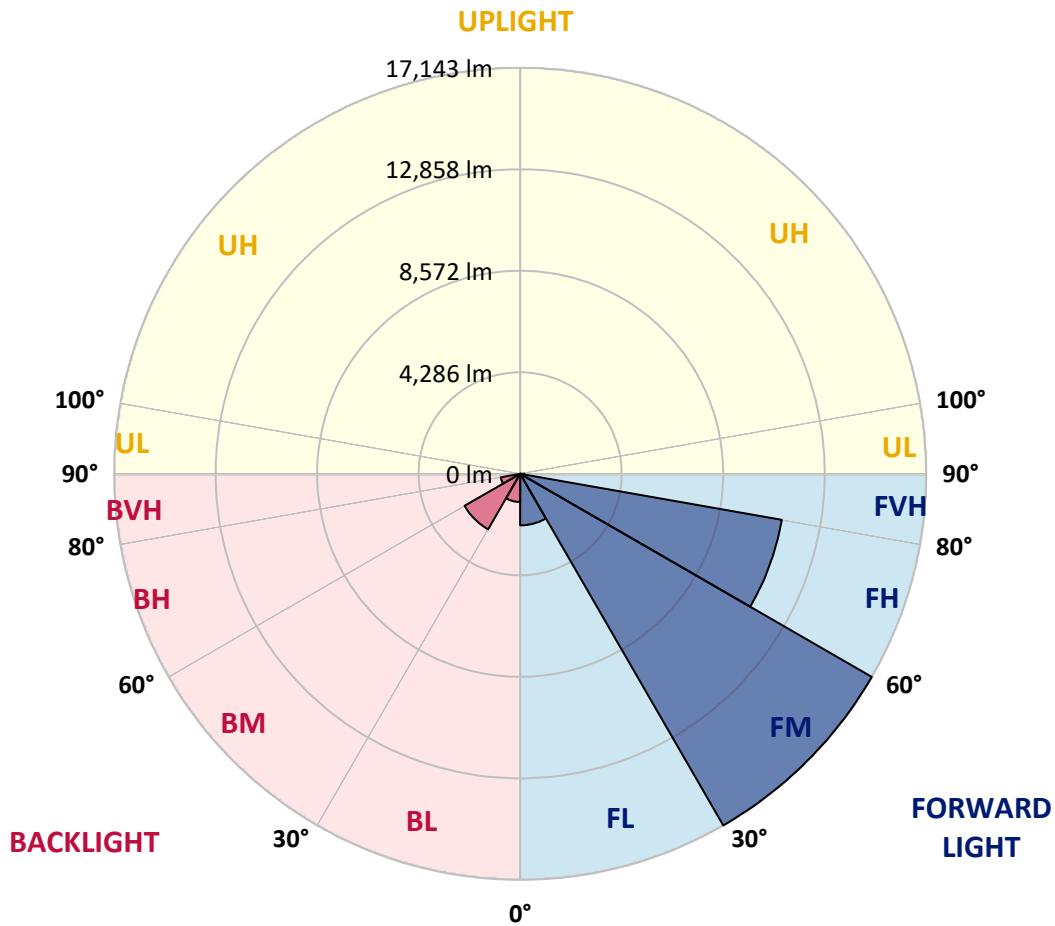
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2176.1	6.1			
FM (30°-60°)	17143.4	48.4			
FH (60°-80°)	11217.9	31.7			G4/12000
FVH (80°-90°)	158.8	0.4			G2/225
BL (0°-30°)	1189.8	3.4	B3/2500		
BM (30°-60°)	2709.1	7.6	B3/5000		
BH (60°-80°)	831.7	2.3	B2/1000		G2/1000
BVH (80°-90°)	8.2	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 Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	4121.5	4121.5	4121.5	4121.5	4121.5	4121.5	4121.5	4121.5	4121.5	4121.5	4121.5
2.5°	4107.2	4135.7	4128.6	4121.5	4119.1	4123.8	4126.2	4123.8	4123.8	4123.8	4126.2
5°	4028.8	4052.6	4052.6	4069.2	4093.0	4121.5	4142.8	4147.6	4152.3	4159.5	4157.1
7.5°	3879.2	3898.2	3912.4	3967.1	4026.4	4102.5	4166.6	4199.8	4204.6	4230.7	4240.2
10°	3777.0	3800.8	3824.5	3881.5	3967.1	4081.1	4190.3	4271.1	4283.0	4344.8	4373.3
12.5°	3772.3	3796.0	3826.9	3888.7	3988.4	4109.6	4242.6	4359.0	4380.4	4470.7	4530.0
15°	3822.1	3850.7	3879.2	3955.2	4062.1	4209.4	4351.9	4496.8	4518.2	4646.4	4710.6
17.5°	3924.3	3962.3	3983.7	4059.7	4173.7	4337.6	4525.3	4691.6	4710.6	4860.2	4941.0
20°	4126.2	4171.3	4178.5	4240.2	4351.9	4527.7	4751.0	4957.6	4981.4	5152.4	5242.7
22.5°	4544.3	4608.4	4551.4	4582.3	4682.1	4857.9	5100.2	5361.5	5394.7	5589.5	5670.3
25°	5280.7	5371.0	5223.7	5171.4	5214.2	5397.1	5701.2	6031.3	6069.4	6226.1	6266.5
27.5°	6727.4	6611.0	6387.7	6169.1	6040.8	6145.4	6487.4	6896.0	6943.5	7095.6	7048.1
30°	8316.6	8214.4	7912.7	7428.1	7124.1	7107.4	7423.4	7879.5	7934.1	8079.0	7934.1
32.5°	9908.1	9810.7	9482.9	8886.7	8359.3	8098.0	8316.6	8822.5	8851.0	8943.7	8729.9
35°	11473.6	11373.8	11046.0	10435.5	9787.0	9193.1	9150.4	9720.5	9730.0	9827.4	9509.0
37.5°	13048.5	12965.4	12616.2	12017.6	11378.6	10559.0	10162.3	10570.9	10582.8	10677.8	10347.6
40°	14172.1	14207.7	13967.8	13504.6	12955.9	12060.3	11297.8	11475.9	11404.7	11563.8	11366.7
42.5°	15136.6	15207.8	14998.8	14766.0	14447.7	13659.0	12704.1	12673.2	12559.2	12644.7	12440.4
45°	15970.4	16029.7	15842.1	15787.4	15780.3	15226.8	14241.0	14055.7	13896.6	13879.9	13635.3
47.5°	16276.8	16390.8	16471.6	16654.5	17010.8	16778.0	15830.2	15542.8	15364.6	15234.0	14846.8
50°	16393.2	16514.3	16789.9	17322.0	18165.3	18265.1	17412.3	17089.2	16870.7	16633.1	16063.0
52.5°	16236.4	16452.6	16823.2	17718.7	18942.1	19457.6	18930.2	18647.5	18398.1	18010.9	17165.2
55°	15312.3	15528.5	16286.3	17714.0	19329.3	20293.7	20365.0	20239.1	19958.8	19348.3	18056.0
57.5°	13364.5	13685.1	14884.8	17110.6	19322.2	21013.5	21771.3	21861.5	21548.0	20673.8	18756.8
60°	10665.9	11100.6	12563.9	15773.2	18725.9	21403.1	23004.2	23455.5	23122.9	21980.3	19324.5
62.5°	7442.4	7946.0	9330.9	13678.0	17362.4	21122.8	23904.5	24738.3	24486.5	23149.1	19543.1
65°	4539.5	4701.1	5817.6	10763.3	15043.9	19949.3	24182.4	25431.9	25348.8	23864.1	19220.0
67.5°	3024.0	3159.4	3480.1	7380.6	11677.9	17604.7	23517.3	25310.7	25334.5	23747.7	18037.0
70°	1822.0	1938.4	2147.4	4292.5	7568.3	13934.6	21457.7	23766.7	23904.5	22191.7	15794.6
72.5°	750.7	829.0	1019.1	1945.5	3919.5	8843.9	17086.8	20405.4	20726.1	18659.4	12122.1
75°	425.2	465.6	598.6	976.3	1700.8	4121.5	10350.0	14485.7	14958.4	12860.9	7292.7
77.5°	282.7	301.7	387.2	631.9	957.3	1406.3	4423.1	7546.9	8449.6	7024.3	3157.0
80°	190.0	206.7	266.1	422.8	622.4	603.4	1408.7	2795.9	3439.7	2413.5	769.7
82.5°	128.3	130.7	190.0	277.9	394.3	292.2	415.7	869.4	1092.7	698.4	292.2
85°	73.6	71.3	140.2	161.5	175.8	121.1	125.9	261.3	342.1	294.6	166.3
87.5°	9.5	14.3	54.6	42.8	23.8	26.1	26.1	45.1	66.5	71.3	35.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4121.5	4121.5	4121.5	4121.5	4121.5	4121.5	4121.5	4121.5	4121.5	4121.5	4121.5
2.5°	4126.2	4123.8	4116.7	4109.6	4093.0	4083.5	4088.2	4083.5	4081.1	4083.5	4093.0
5°	4157.1	4150.0	4131.0	4107.2	4073.9	4033.6	4007.4	3969.4	3933.8	3912.4	3917.2
7.5°	4240.2	4233.1	4207.0	4140.5	4033.6	3864.9	3710.5	3575.1	3473.0	3413.6	3415.9
10°	4373.3	4361.4	4321.0	4173.7	3893.4	3525.2	3218.8	2964.6	2798.3	2719.9	2712.8
12.5°	4530.0	4515.8	4444.5	4142.8	3627.4	3052.5	2629.7	2347.0	2192.6	2123.7	2116.6
15°	4715.3	4696.3	4556.2	3995.6	3240.2	2529.9	2142.7	1931.3	1831.5	1769.7	1772.1
17.5°	4945.8	4912.5	4639.3	3774.6	2819.7	2130.8	1843.4	1684.2	1596.3	1536.9	1532.2
20°	5245.1	5190.4	4705.8	3511.0	2432.5	1879.0	1641.5	1508.4	1441.9	1389.7	1380.2
22.5°	5663.1	5584.8	4786.6	3225.9	2159.3	1705.6	1491.8	1394.4	1339.8	1280.4	1270.9
25°	6181.0	6088.4	4886.4	2962.2	1971.6	1555.9	1382.5	1301.8	1237.6	1168.7	1161.6
27.5°	6905.5	6739.2	5005.1	2746.1	1810.1	1427.7	1282.8	1192.5	1118.9	1061.8	1050.0
30°	7713.2	7440.0	5109.7	2615.4	1662.8	1308.9	1152.1	1061.8	993.0	952.6	945.4
32.5°	8478.1	8107.5	5178.5	2558.4	1529.8	1173.5	1009.6	912.2	859.9	848.0	855.2
35°	9200.2	8710.9	5171.4	2503.8	1411.0	1038.1	869.4	769.7	729.3	736.4	736.4
37.5°	10031.7	9354.6	5121.5	2418.2	1313.6	914.6	748.3	660.4	624.8	627.1	636.6
40°	10998.5	10098.2	5090.7	2256.7	1206.7	800.5	648.5	577.2	551.1	541.6	539.2
42.5°	12029.4	10817.9	5095.4	2073.8	1073.7	698.4	579.6	520.2	496.5	489.3	487.0
45°	13065.1	11504.5	5102.5	1883.8	933.6	620.0	529.7	479.8	465.6	456.1	456.1
47.5°	14039.1	12088.8	4969.5	1679.5	795.8	560.6	489.3	456.1	444.2	432.3	432.3
50°	14946.5	12478.4	4648.8	1441.9	686.5	513.1	458.5	434.7	422.8	411.0	411.0
52.5°	15652.0	12540.2	4119.1	1197.2	610.5	477.5	439.5	418.1	403.8	392.0	389.6
55°	15965.6	12153.0	3366.1	969.2	551.1	446.6	420.5	399.1	382.5	370.6	368.2
57.5°	15884.8	11338.2	2624.9	779.2	494.1	415.7	396.7	382.5	363.4	344.4	342.1
60°	15488.1	10247.8	1978.8	648.5	441.8	382.5	370.6	358.7	332.6	304.1	299.3
62.5°	14801.6	8877.2	1411.0	536.9	384.8	344.4	339.7	330.2	292.2	239.9	235.2
65°	13751.7	7212.0	950.2	446.6	330.2	301.7	304.1	287.4	237.5	178.2	173.4
67.5°	12217.1	5273.6	608.1	365.8	275.6	251.8	254.2	244.7	201.9	152.0	144.9
70°	10262.1	3492.0	396.7	277.9	220.9	194.8	209.0	211.4	171.0	123.5	118.8
72.5°	7523.1	2061.9	277.9	206.7	161.5	135.4	171.0	175.8	137.8	92.6	87.9
75°	4287.7	978.7	209.0	149.7	99.8	95.0	133.0	133.0	95.0	61.8	57.0
77.5°	1800.6	408.6	147.3	97.4	57.0	54.6	90.3	83.1	47.5	28.5	28.5
80°	520.2	182.9	78.4	47.5	23.8	21.4	35.6	26.1	11.9	4.8	4.8
82.5°	204.3	80.8	30.9	19.0	9.5	9.5	4.8	0.0	0.0	0.0	0.0
85°	121.1	33.3	14.3	7.1	2.4	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	30.9	7.1	4.8	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)