

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: P270660

Luminaire Tested: **NAV-AF-06-D-UNV-AFL-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270660
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24283)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-06-D-UNV-AFL-7027-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26268.4 lumens
Efficiency: N/A
Efficacy: 78.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 333
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: 25 FT

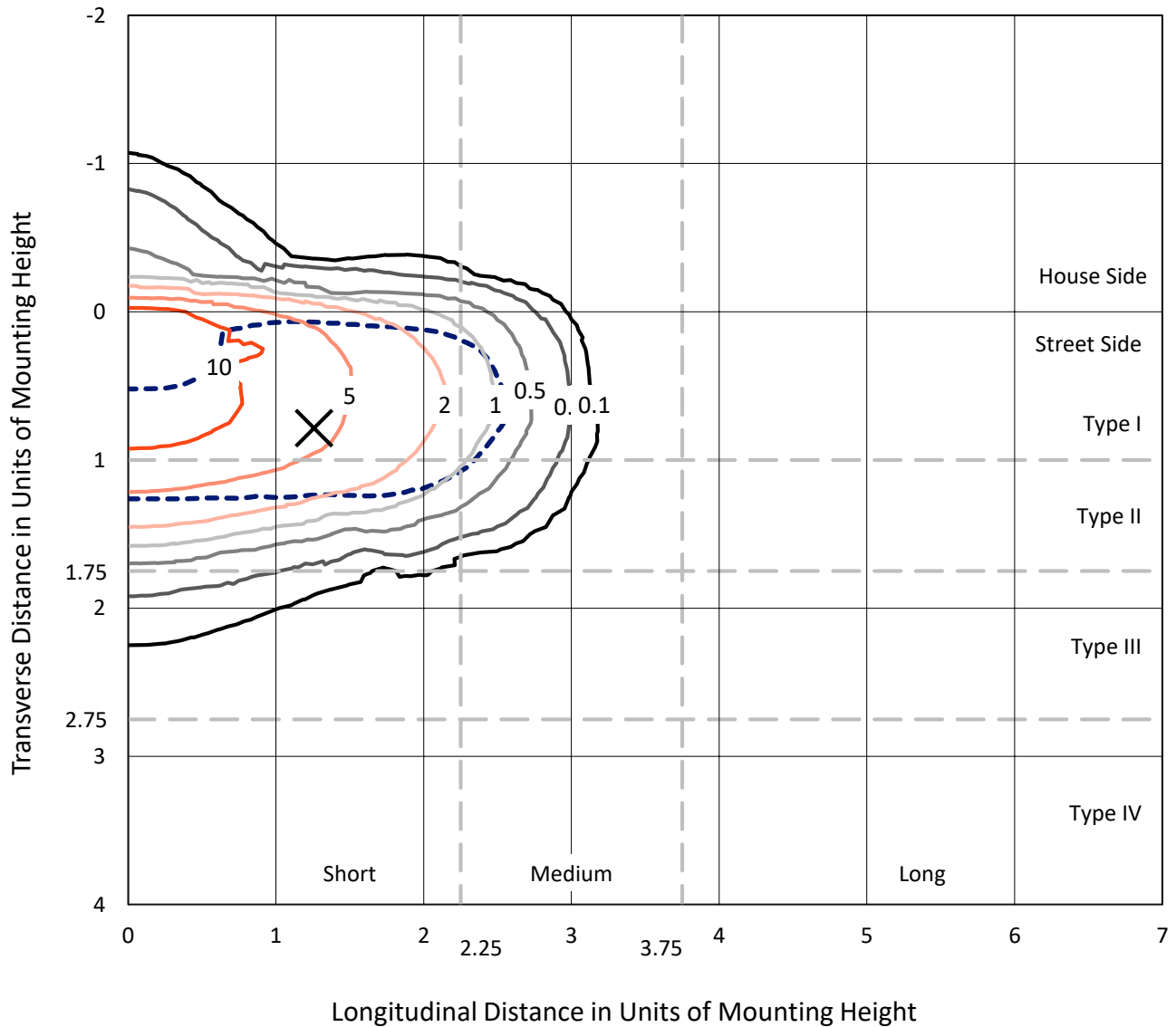


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Iso-Footcandle Lines of Horizontal Illumination

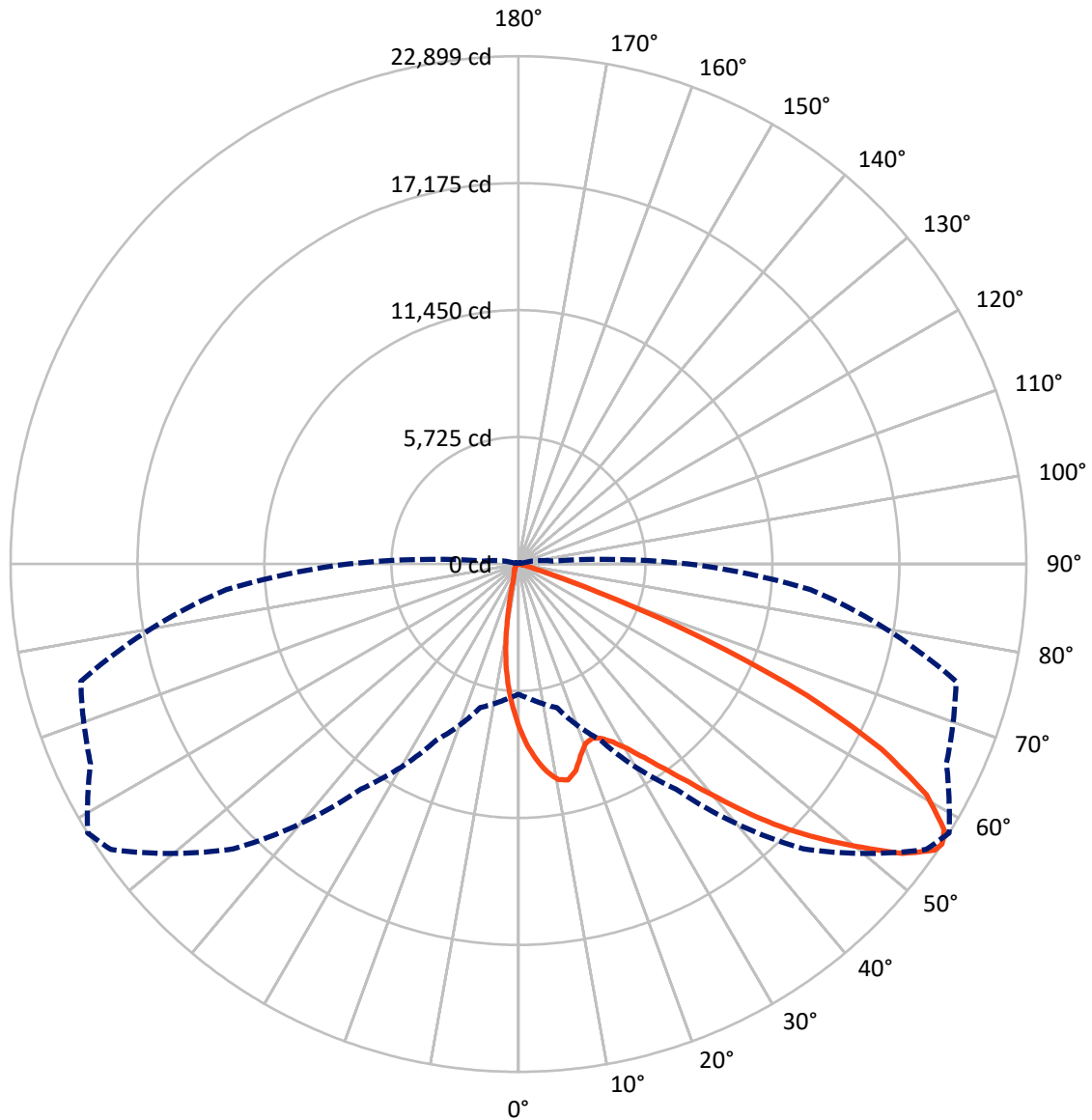
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 14.8 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 56-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1639.7	0.0	1639.7
	% Fixture	6.2	0.0	6.2
Street Side	Lumens	24628.7	0.0	24628.7
	% Fixture	93.8	0.0	93.8
Total	Lumens	26268.4	0.0	26268.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	634.4	2.4
10°-20°	1476.3	5.6
20°-30°	2484.1	9.5
30°-40°	4253.7	16.2
40°-50°	6418.9	24.4
50°-60°	6672.3	25.4
60°-70°	3745.7	14.3
70°-80°	513.4	2.0
80°-90°	69.6	0.3
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°	26268.4	100.0
0°-180°	26268.4	100.0



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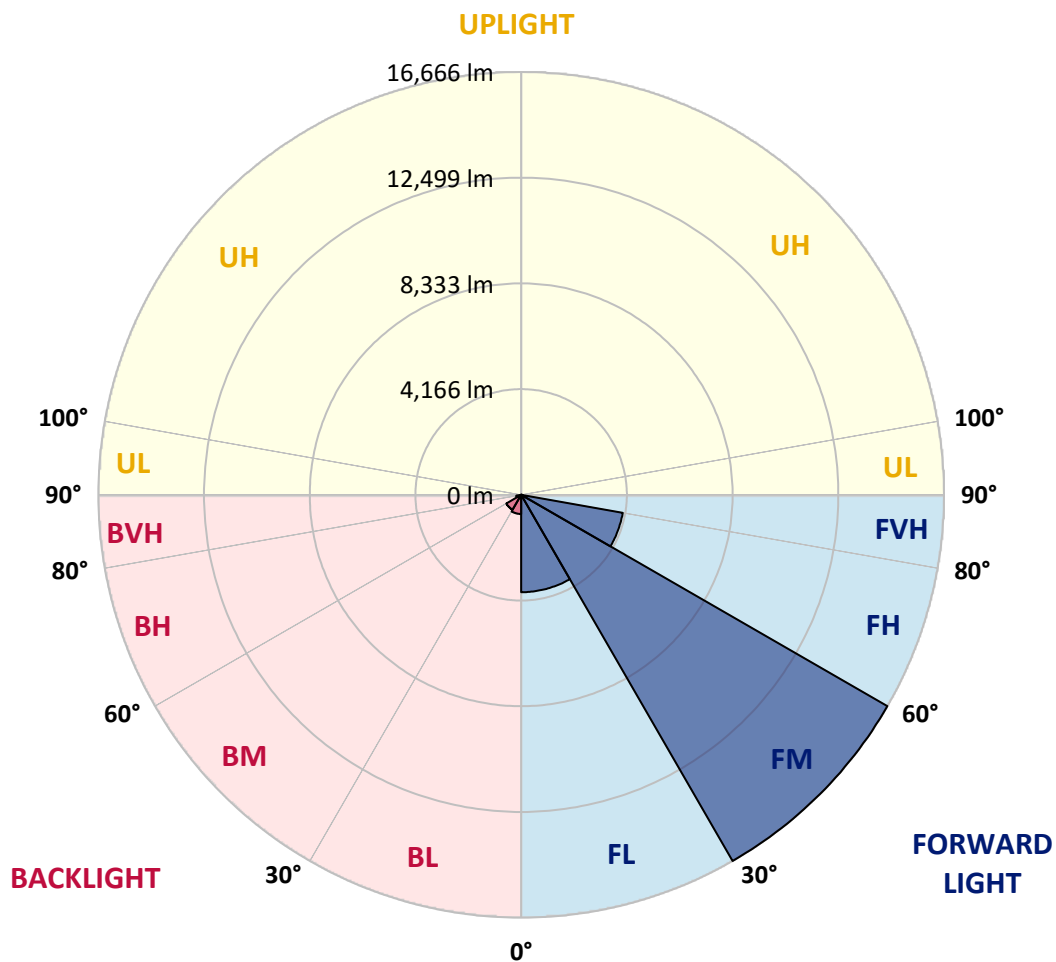
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3838.4	14.6			
FM	(30°-60°)	16665.7	63.4			
FH	(60°-80°)	4064.6	15.5			G2/5000
FVH	(80°-90°)	59.9	0.2			G1/100
BL	(0°-30°)	756.4	2.9	B2/1000		
BM	(30°-60°)	679.2	2.6	B1/1000		
BH	(60°-80°)	194.5	0.7	B1/500		G1/500
BVH	(80°-90°)	9.6	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-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	7437.3	7437.3	7437.3	7437.3	7437.3	7437.3	7437.3	7437.3	7437.3	7437.3	7437.3
2.5°	8948.5	8894.4	8838.2	8734.0	8637.8	8489.5	8285.1	8235.0	8074.7	7810.1	7563.5
5°	9720.1	9710.0	9672.1	9587.8	9483.5	9303.2	9072.7	8918.5	8669.9	8253.1	7778.1
7.5°	9263.1	9347.4	9485.7	9682.0	9814.3	9796.2	9619.9	9485.7	9239.1	8669.9	7988.4
10°	7808.2	7824.1	8014.6	8427.4	9080.7	9690.0	9920.5	9884.4	9657.9	9034.7	8172.9
12.5°	7295.0	7305.0	7349.3	7481.4	7906.3	8756.0	9800.2	9988.7	9970.6	9383.3	8369.2
15°	7335.2	7341.2	7353.2	7395.2	7515.5	7942.5	9191.0	9670.0	10171.0	9714.1	8561.7
17.5°	7651.9	7647.8	7609.7	7569.7	7607.7	7748.1	8569.7	9074.8	10128.8	9992.7	8719.9
20°	8269.1	8289.1	8160.8	7982.5	7890.4	7896.3	8263.1	8641.9	9892.5	10209.1	8838.2
22.5°	9136.9	9150.9	8940.6	8631.9	8361.2	8225.1	8327.2	8527.6	9619.9	10409.5	8934.5
25°	10173.0	10173.0	9878.4	9439.5	9020.6	8722.1	8633.8	8710.0	9515.7	10636.0	9030.8
27.5°	11291.3	11331.4	10946.7	10371.4	9818.3	9381.4	9104.9	9090.8	9595.9	10920.5	9138.8
30°	12507.8	12543.9	12087.0	11383.5	10728.2	10169.1	9744.2	9652.0	9902.5	11303.4	9297.2
32.5°	13718.3	13748.4	13243.4	12525.8	11762.2	11104.9	10545.8	10399.5	10453.5	11862.5	9529.7
35°	15257.5	15263.6	14624.2	13770.5	12954.7	12183.2	11475.7	11331.4	11271.4	12567.9	9864.4
37.5°	16482.0	16434.0	16029.1	15221.5	14285.6	13479.8	12648.1	12459.8	12315.5	13560.0	10383.5
40°	16770.6	16770.6	16710.5	16468.1	15724.6	14948.9	14143.3	13862.6	13543.9	14728.4	11081.0
42.5°	16019.1	16067.3	16464.0	16991.1	16997.1	16500.1	15712.4	15476.0	14914.7	16059.2	11842.4
45°	14337.7	14351.6	15303.6	16726.6	17692.6	17977.2	17395.9	17069.2	16291.8	17442.0	12539.9
47.5°	13732.4	13776.4	14181.4	15920.9	17744.7	19173.7	19011.3	18562.3	17566.3	18704.7	13191.3
50°	12802.5	12856.5	13351.6	14734.4	17275.8	19941.3	20556.5	20075.5	18726.6	19756.9	13513.9
52.5°	10577.8	10662.1	11361.5	13165.2	16103.2	19973.3	21971.5	21682.7	19915.2	20320.0	13475.8
55°	7279.1	7341.2	8156.9	10277.1	13738.4	18993.3	22580.7	22779.1	20975.3	20446.2	13291.5
56°	5872.1	6104.6	6701.9	8756.0	12391.6	18159.5	22440.4	22899.4	21290.0	20426.2	13211.4
57.5°	3882.0	3926.1	4577.5	6345.1	9950.5	16349.8	21807.1	22642.8	21694.8	20324.1	13153.3
60°	1825.7	1845.7	2080.4	2928.0	5385.1	11914.6	19748.8	21135.7	21843.1	20109.5	13151.1
62.5°	1190.4	1194.4	1222.6	1396.9	2202.6	6489.4	16371.8	18368.0	20614.7	20085.6	13113.1
65°	980.1	990.0	955.9	978.1	1152.3	2447.1	11547.8	14319.6	17730.7	19520.3	12684.2
67.5°	863.8	865.7	819.8	793.7	843.8	1074.3	5818.1	9032.6	13261.4	16586.2	10447.6
70°	787.6	785.6	733.6	673.4	675.3	713.4	1896.0	3751.7	7337.1	9848.4	5998.4
72.5°	699.4	703.5	673.4	589.2	561.1	505.0	713.4	1012.1	2497.2	3162.6	1581.2
75°	613.3	605.3	575.2	521.0	468.9	338.8	358.8	430.8	651.4	645.3	340.6
77.5°	465.0	457.0	471.0	444.9	366.8	236.6	196.4	224.4	294.6	274.5	138.2
80°	354.7	350.7	320.6	380.8	334.7	178.4	134.2	138.2	160.3	146.3	68.1
82.5°	256.6	254.5	242.5	234.5	212.4	130.3	102.1	108.2	120.3	102.1	50.0
85°	98.3	98.3	190.4	160.3	146.3	88.2	72.1	78.2	92.2	74.2	34.0
87.5°	16.0	16.0	128.3	106.2	66.1	44.0	46.2	50.0	54.1	44.0	26.1
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°	7437.3	7437.3	7437.3	7437.3	7437.3	7437.3	7437.3	7437.3	7437.3	7437.3	7437.3
2.5°	7417.3	7283.1	6988.5	6703.8	6455.3	6182.8	6044.4	5884.2	5824.0	5703.8	5715.8
5°	7493.5	7212.9	6621.6	5998.4	5427.2	4845.9	4433.1	4044.3	3827.9	3613.4	3613.4
7.5°	7571.6	7142.8	6228.8	5232.7	4270.8	3274.9	2569.3	2004.2	1689.5	1479.1	1473.0
10°	7625.7	7052.6	5781.9	4345.0	2926.0	1687.5	1018.0	801.6	723.5	689.4	687.5
12.5°	7695.9	6962.5	5273.0	3298.8	1625.4	801.6	635.3	601.2	587.2	579.1	579.1
15°	7756.1	6834.1	4655.6	2218.5	853.7	601.2	547.2	535.1	533.1	531.1	533.1
17.5°	7770.1	6651.8	3916.2	1298.7	619.3	525.1	501.1	491.1	491.1	488.9	488.9
20°	7738.0	6411.3	3098.4	801.6	535.1	483.0	457.0	444.9	443.0	443.0	443.0
22.5°	7671.9	6104.6	2290.8	607.3	487.1	444.9	410.9	398.8	398.8	400.9	402.8
25°	7589.7	5741.8	1573.2	523.2	450.9	404.9	370.8	358.8	362.7	366.8	368.8
27.5°	7485.4	5309.0	1030.1	452.9	402.8	364.7	334.7	326.7	334.7	342.8	346.7
30°	7381.3	4834.0	697.4	392.7	348.7	320.6	302.5	300.7	312.6	330.7	332.7
32.5°	7313.1	4347.0	527.0	352.8	306.6	282.5	274.5	278.6	296.6	316.7	320.6
35°	7307.2	3872.1	449.0	320.6	278.6	256.6	252.6	264.6	284.7	300.7	304.6
37.5°	7401.2	3427.0	406.8	296.6	256.6	234.5	228.4	250.4	268.6	284.7	288.5
40°	7591.7	3028.2	378.7	274.5	238.5	212.4	208.4	226.5	244.5	262.6	268.6
42.5°	7830.2	2655.5	346.7	252.6	218.5	188.4	184.4	198.4	216.4	242.5	246.6
45°	8036.5	2308.7	312.6	228.4	196.4	162.4	160.3	176.3	190.4	214.4	218.5
47.5°	8211.0	2020.2	280.6	202.4	168.3	144.3	142.3	150.2	158.3	180.4	184.4
50°	8118.8	1775.7	248.6	166.4	136.4	124.2	122.3	122.3	132.3	154.2	158.3
52.5°	7892.2	1623.3	218.5	138.2	112.2	106.2	100.3	102.1	112.2	122.3	124.2
55°	7710.0	1551.3	192.3	122.3	94.2	88.2	82.1	80.2	82.1	78.2	74.2
56°	7665.9	1543.2	186.4	118.2	90.2	82.1	74.2	70.2	68.1	60.1	58.1
57.5°	7645.8	1543.2	176.3	110.2	84.3	74.2	64.0	56.1	48.1	42.1	42.1
60°	7629.8	1553.2	164.3	96.2	72.1	60.1	46.2	34.0	28.0	28.0	28.0
62.5°	7595.7	1549.1	150.2	80.2	62.2	46.2	28.0	22.1	20.0	22.1	24.1
65°	7212.9	1438.9	132.3	64.0	48.1	32.1	16.0	16.0	18.1	22.1	24.1
67.5°	5812.0	1090.3	108.2	50.0	34.0	24.1	14.1	14.1	18.1	22.1	24.1
70°	3192.5	575.2	92.2	36.1	26.1	20.0	14.1	12.0	18.1	22.1	24.1
72.5°	779.5	240.4	84.3	28.0	24.1	18.1	12.0	12.0	18.1	22.1	24.1
75°	192.3	180.4	68.1	22.1	20.0	16.0	12.0	12.0	18.1	22.1	24.1
77.5°	90.2	238.5	46.2	20.0	18.1	14.1	12.0	12.0	18.1	22.1	22.1
80°	54.1	180.4	28.0	18.1	16.0	14.1	12.0	12.0	18.1	22.1	24.1
82.5°	32.1	52.1	20.0	18.1	16.0	12.0	12.0	12.0	18.1	22.1	24.1
85°	28.0	26.1	20.0	18.1	16.0	14.1	12.0	12.0	20.0	24.1	24.1
87.5°	22.1	20.0	18.1	16.0	16.0	14.1	12.0	12.0	18.1	22.1	24.1
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)