

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: P270659

Luminaire Tested: **NAV-AF-06-D-UNV-AFL-7027-1200-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270659
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-7027-1200-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 2700K, 1200mA 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: 28816.3 lumens
Efficiency: N/A
Efficacy: 75.4 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): 382
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

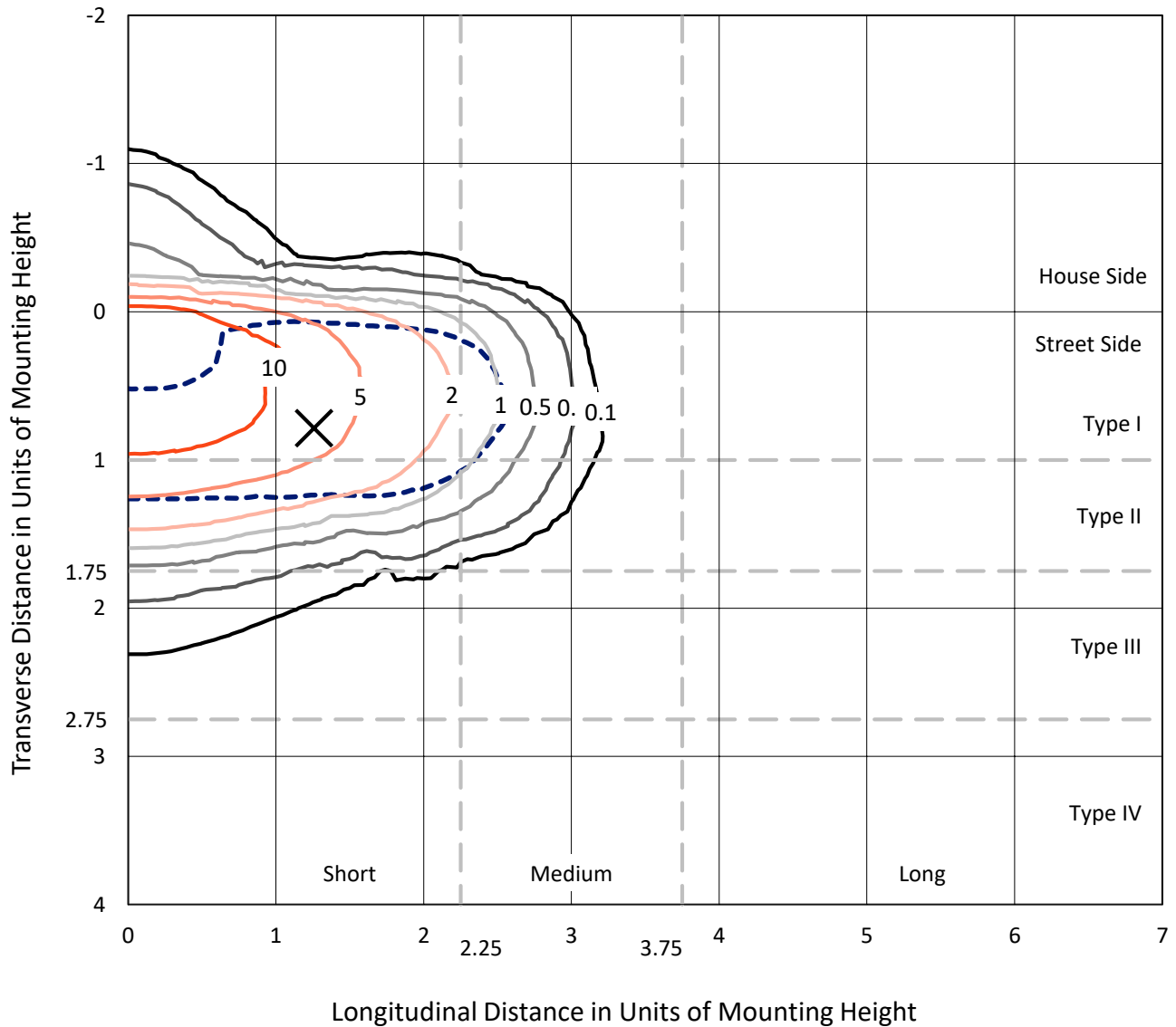


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

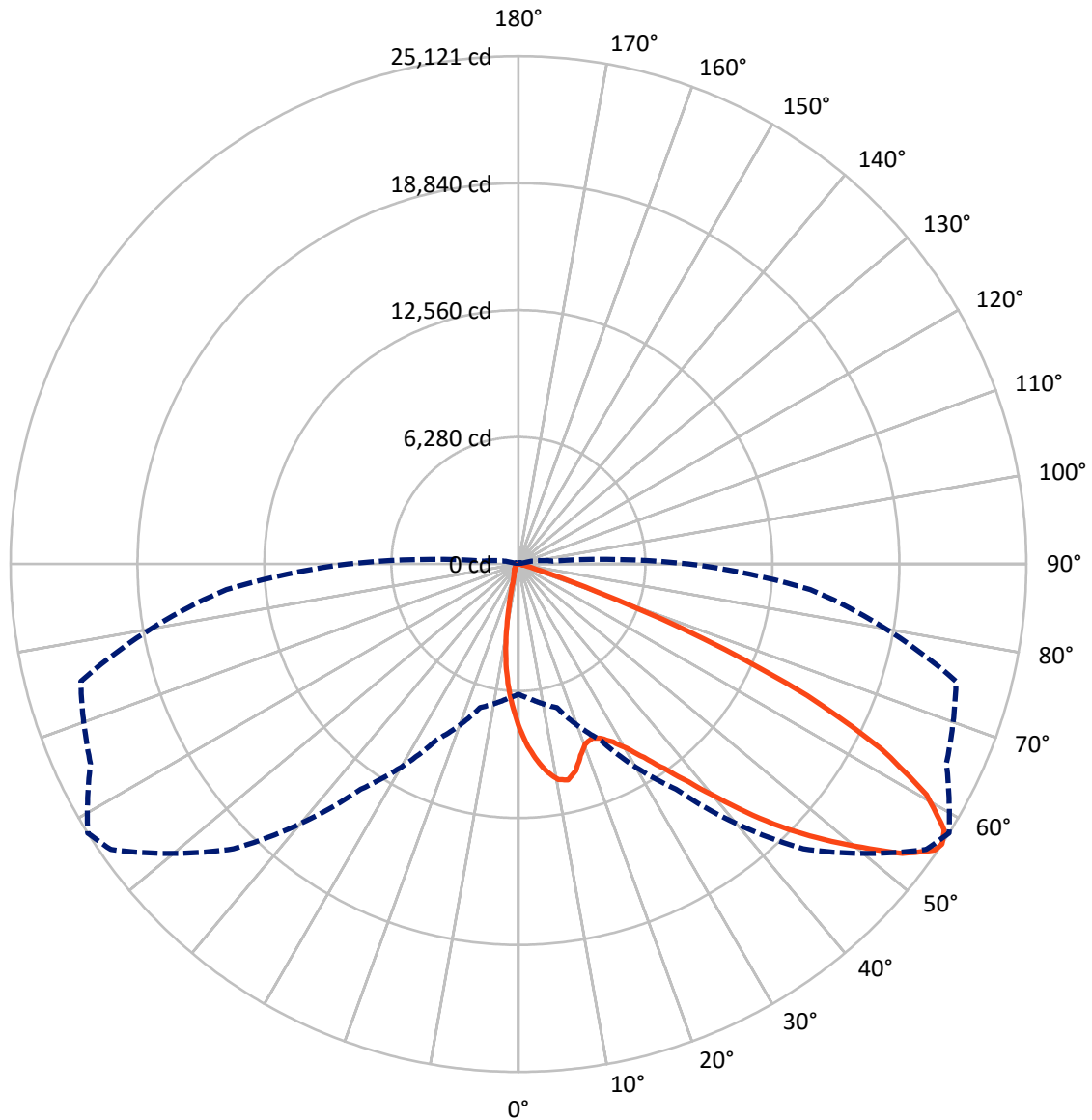


Based on 25 foot mounting height. Maximum calculated value = 16.2 fc
 Type II - Short - Full Cutoff

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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	1798.7	0.0	1798.7
	% Fixture	6.2	0.0	6.2
Street Side	Lumens	27017.6	0.0	27017.6
	% Fixture	93.8	0.0	93.8
Total	Lumens	28816.3	0.0	28816.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	696.0	2.4
10°-20°	1619.5	5.6
20°-30°	2725.0	9.5
30°-40°	4666.3	16.2
40°-50°	7041.5	24.4
50°-60°	7319.5	25.4
60°-70°	4109.0	14.3
70°-80°	563.2	2.0
80°-90°	76.3	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°	28816.3	100.0
0°-180°	28816.3	100.0



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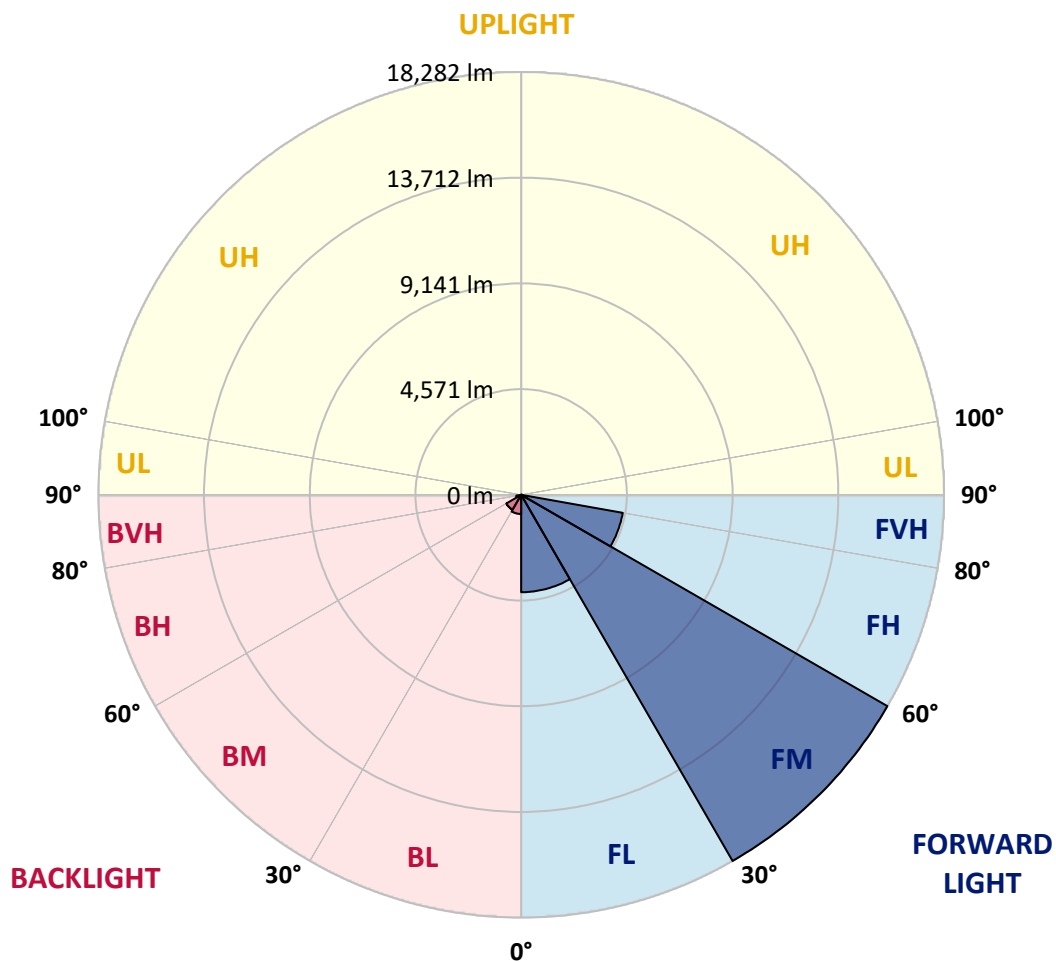
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4210.7	14.6			
FM	(30°-60°)	18282.3	63.4			
FH	(60°-80°)	4458.8	15.5			G2/5000
FVH	(80°-90°)	65.8	0.2			G1/100
BL	(0°-30°)	829.7	2.9	B2/1000		
BM	(30°-60°)	745.1	2.6	B1/1000		
BH	(60°-80°)	213.4	0.7	B1/500		G1/500
BVH	(80°-90°)	10.5	0.0			G1/100
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°	8158.8	8158.8	8158.8	8158.8	8158.8	8158.8	8158.8	8158.8	8158.8	8158.8	8158.8
2.5°	9816.5	9757.1	9695.5	9581.2	9475.7	9313.0	9088.7	9033.7	8857.8	8567.7	8297.3
5°	10662.9	10651.9	10610.2	10517.7	10403.5	10205.6	9952.9	9783.5	9510.9	9053.6	8532.6
7.5°	10161.6	10254.0	10405.6	10621.1	10766.2	10746.5	10553.0	10405.6	10135.2	9510.9	8763.3
10°	8565.5	8583.0	8791.9	9244.8	9961.6	10630.0	10882.7	10843.3	10594.7	9911.0	8965.7
12.5°	8002.7	8013.7	8062.0	8207.2	8673.2	9605.3	10750.8	10957.4	10937.8	10293.6	9181.0
15°	8046.7	8053.2	8066.4	8112.7	8244.6	8712.8	10082.4	10607.9	11157.6	10656.4	9392.1
17.5°	8394.0	8389.6	8347.8	8303.8	8345.7	8499.6	9400.9	9954.9	11111.3	10961.8	9565.8
20°	9071.2	9093.2	8952.5	8756.8	8655.6	8662.3	9064.5	9480.2	10852.0	11199.3	9695.5
22.5°	10023.1	10038.5	9807.6	9469.2	9172.4	9022.8	9135.0	9354.8	10553.0	11419.2	9801.0
25°	11159.7	11159.7	10836.6	10355.1	9895.5	9568.0	9471.3	9554.8	10438.7	11667.6	9906.6
27.5°	12386.5	12430.6	12008.5	11377.5	10770.6	10291.3	9988.0	9972.5	10526.6	11979.8	10025.4
30°	13721.0	13760.6	13259.3	12487.7	11768.8	11155.3	10689.3	10588.1	10862.9	12399.8	10198.9
32.5°	15048.9	15082.0	14527.8	13740.8	12903.3	12182.0	11568.7	11408.1	11467.6	13013.1	10454.0
35°	16737.5	16744.0	16042.7	15106.2	14211.4	13365.0	12588.8	12430.6	12364.6	13786.9	10821.3
37.5°	18080.7	18027.9	17584.0	16697.9	15671.1	14787.4	13875.0	13668.3	13510.0	14875.4	11390.6
40°	18397.4	18397.4	18331.4	18065.4	17249.8	16398.9	15515.0	15207.2	14857.6	16157.0	12155.8
42.5°	17573.0	17625.6	18061.0	18639.2	18645.8	18100.6	17236.5	16977.1	16361.5	17616.9	12991.2
45°	15728.3	15743.8	16788.1	18349.0	19408.7	19720.9	19083.2	18724.9	17871.9	19133.9	13756.3
47.5°	15064.3	15112.7	15556.8	17465.1	19465.8	21033.4	20855.3	20362.8	19270.3	20518.9	14470.7
50°	14044.2	14103.6	14646.7	16163.7	18951.4	21875.4	22550.4	22022.8	20543.1	21673.1	14824.6
52.5°	11603.9	11696.2	12463.5	14442.2	17665.2	21910.6	24102.6	23786.0	21846.9	22290.9	14783.0
55°	7985.0	8053.2	8948.0	11274.1	15071.0	20835.5	24770.9	24988.5	23009.8	22429.5	14580.7
56°	6441.7	6696.8	7351.9	9605.3	13593.5	19921.0	24617.1	25120.5	23355.0	22407.5	14492.7
57.5°	4258.5	4307.0	5021.4	6960.5	10915.8	17935.6	23922.3	24839.0	23799.2	22295.4	14428.9
60°	2003.0	2024.9	2282.1	3212.1	5907.4	13070.2	21664.3	23185.8	23961.7	22060.0	14426.8
62.5°	1306.0	1310.4	1341.1	1532.4	2416.3	7118.9	17959.9	20149.6	22614.1	22033.7	14385.0
65°	1075.1	1086.1	1048.7	1072.8	1264.2	2684.4	12668.0	15708.5	19450.5	21413.7	13914.6
67.5°	947.5	949.8	899.3	870.5	925.6	1178.3	6382.4	9908.8	14547.7	18195.1	11460.9
70°	864.0	861.8	804.6	738.6	740.9	782.7	2079.8	4115.7	8048.9	10803.6	6580.3
72.5°	767.3	771.6	738.6	646.4	615.6	554.1	782.7	1110.2	2739.4	3469.3	1734.6
75°	672.7	663.9	631.0	571.6	514.5	371.5	393.5	472.7	714.5	708.0	373.8
77.5°	510.1	501.3	516.6	488.0	402.4	259.4	215.5	246.2	323.2	301.2	151.8
80°	389.1	384.7	351.7	417.7	367.1	195.7	147.3	151.8	175.9	160.4	74.7
82.5°	281.3	279.3	266.0	257.3	233.0	142.9	112.1	118.8	132.0	112.1	54.9
85°	107.7	107.7	208.9	175.9	160.4	96.7	79.1	85.8	101.1	81.3	37.4
87.5°	17.5	17.5	140.8	116.5	72.6	48.4	50.6	54.9	59.4	48.4	28.6
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°	8158.8	8158.8	8158.8	8158.8	8158.8	8158.8	8158.8	8158.8	8158.8	8158.8	8158.8
2.5°	8136.8	7989.4	7666.2	7354.2	7081.5	6782.6	6630.7	6455.0	6388.9	6257.1	6270.2
5°	8220.3	7912.5	7264.0	6580.3	5953.6	5316.1	4863.2	4436.6	4199.1	3964.0	3964.0
7.5°	8306.1	7835.6	6833.0	5740.3	4685.1	3592.4	2818.5	2198.5	1853.4	1622.5	1616.0
10°	8365.5	7736.7	6342.8	4766.4	3209.9	1851.1	1116.9	879.4	793.7	756.4	754.0
12.5°	8442.5	7637.7	5784.4	3618.8	1783.0	879.4	696.9	659.5	644.2	635.5	635.5
15°	8508.3	7497.1	5107.3	2433.8	936.6	659.5	600.2	587.0	584.7	582.6	584.7
17.5°	8523.7	7296.9	4296.0	1424.6	679.4	576.1	549.7	538.7	538.7	536.5	536.5
20°	8488.5	7033.1	3398.9	879.4	587.0	529.8	501.3	488.0	485.9	485.9	485.9
22.5°	8416.0	6696.8	2512.9	666.2	534.2	488.0	450.7	437.6	437.6	439.7	441.8
25°	8325.9	6298.7	1725.9	573.7	494.6	444.1	406.8	393.5	397.9	402.4	404.5
27.5°	8211.5	5823.9	1130.1	496.9	441.8	400.1	367.1	358.3	367.1	375.9	380.3
30°	8097.2	5302.9	765.0	430.8	382.6	351.7	332.0	329.8	343.0	362.7	364.9
32.5°	8022.5	4768.7	578.1	386.9	336.3	309.9	301.2	305.7	325.4	347.4	351.7
35°	8015.8	4247.5	492.5	351.7	305.7	281.3	276.9	290.2	312.3	329.8	334.2
37.5°	8119.2	3759.4	446.3	325.4	281.3	257.3	250.6	274.8	294.6	312.3	316.7
40°	8328.0	3322.0	415.6	301.2	261.6	233.0	228.7	248.4	268.2	287.9	294.6
42.5°	8589.7	2913.1	380.3	276.9	239.7	206.7	202.3	217.7	237.4	266.0	270.4
45°	8816.1	2532.7	343.0	250.6	215.5	178.0	175.9	193.4	208.9	235.3	239.7
47.5°	9007.5	2216.1	307.8	222.1	184.7	158.3	156.0	164.8	173.7	197.8	202.3
50°	8906.2	1948.0	272.6	182.4	149.5	136.4	134.0	134.0	145.0	169.3	173.7
52.5°	8657.9	1780.8	239.7	151.8	123.1	116.5	110.0	112.1	123.1	134.0	136.4
55°	8457.7	1701.7	211.0	134.0	103.3	96.7	90.1	87.9	90.1	85.8	81.3
56°	8409.5	1692.9	204.5	129.7	99.0	90.1	81.3	77.0	74.7	65.9	63.8
57.5°	8387.5	1692.9	193.4	120.9	92.3	81.3	70.3	61.5	52.8	46.2	46.2
60°	8369.8	1703.8	180.3	105.6	79.1	65.9	50.6	37.4	30.8	30.8	30.8
62.5°	8332.5	1699.5	164.8	87.9	68.1	50.6	30.8	24.2	22.0	24.2	26.4
65°	7912.5	1578.5	145.0	70.3	52.8	35.2	17.5	17.5	19.9	24.2	26.4
67.5°	6375.8	1196.1	118.8	54.9	37.4	26.4	15.5	15.5	19.9	24.2	26.4
70°	3502.2	631.0	101.1	39.5	28.6	22.0	15.5	13.1	19.9	24.2	26.4
72.5°	855.2	263.8	92.3	30.8	26.4	19.9	13.1	13.1	19.9	24.2	26.4
75°	211.0	197.8	74.7	24.2	22.0	17.5	13.1	13.1	19.9	24.2	26.4
77.5°	99.0	261.6	50.6	22.0	19.9	15.5	13.1	13.1	19.9	24.2	24.2
80°	59.4	197.8	30.8	19.9	17.5	15.5	13.1	13.1	19.9	24.2	26.4
82.5°	35.2	57.1	22.0	19.9	17.5	13.1	13.1	13.1	19.9	24.2	26.4
85°	30.8	28.6	22.0	19.9	17.5	15.5	13.1	13.1	22.0	26.4	26.4
87.5°	24.2	22.0	19.9	17.5	17.5	15.5	13.1	13.1	19.9	24.2	26.4
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)