

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: P195156

Luminaire Tested: **NAV-AF-06-D-UNV-SL3-7060-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195156
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24263)
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-SL3-7060-800-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 5700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24706 lumens
Efficiency: N/A
Efficacy: 99.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B2 - U0 - G4

Input Watts (W): 249
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

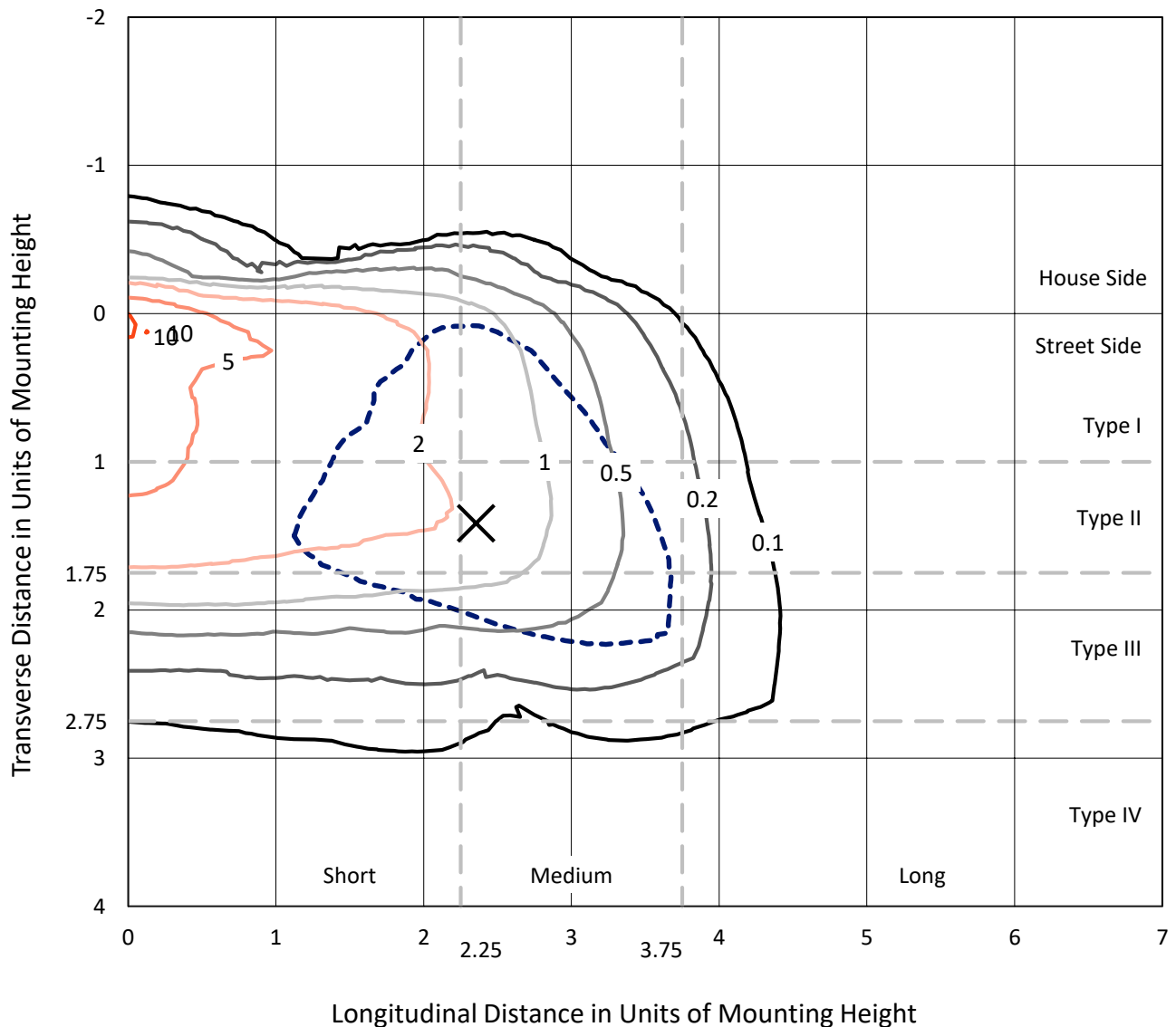


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Iso-Footcandle Lines of Horizontal Illumination

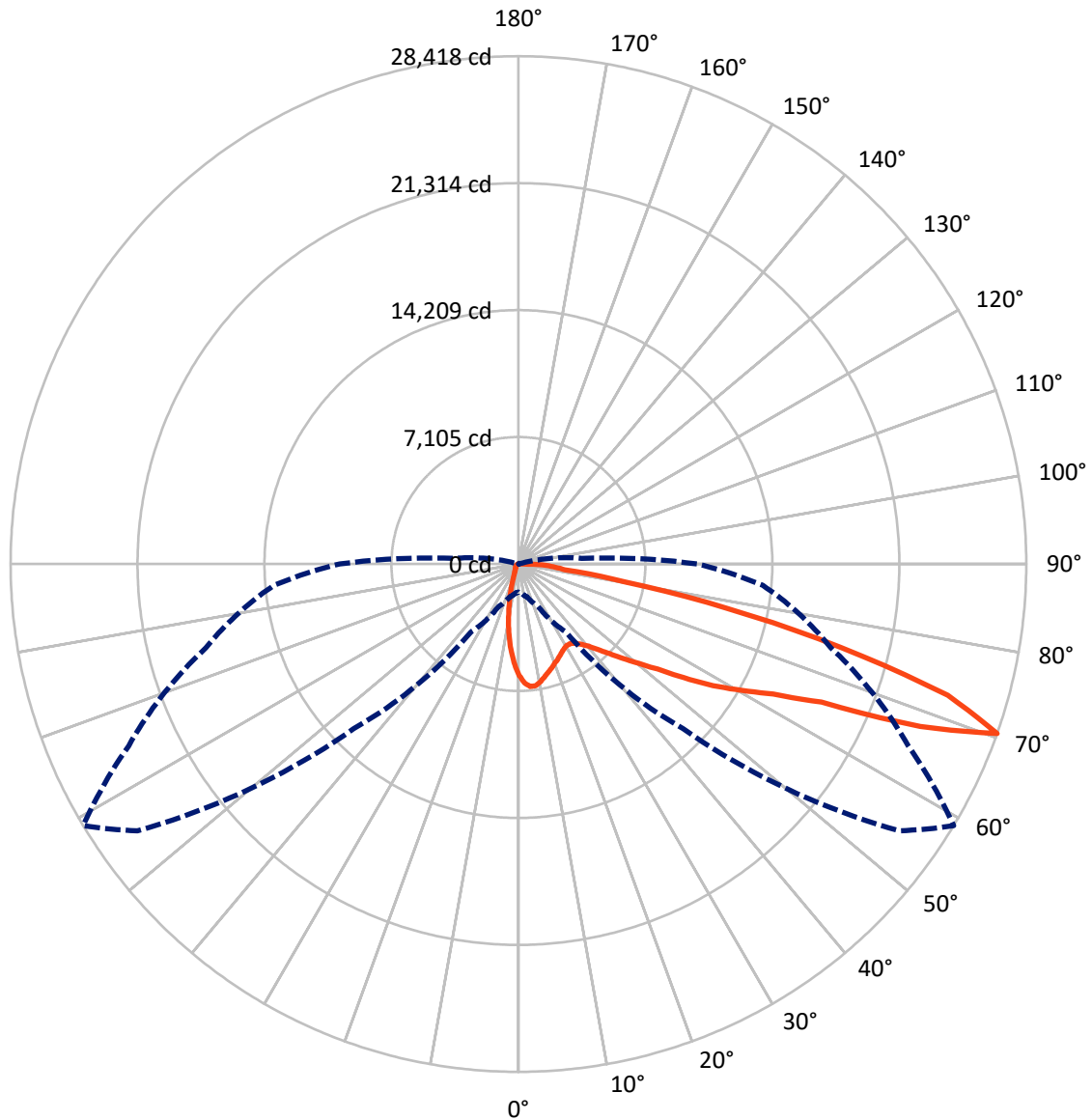
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.6 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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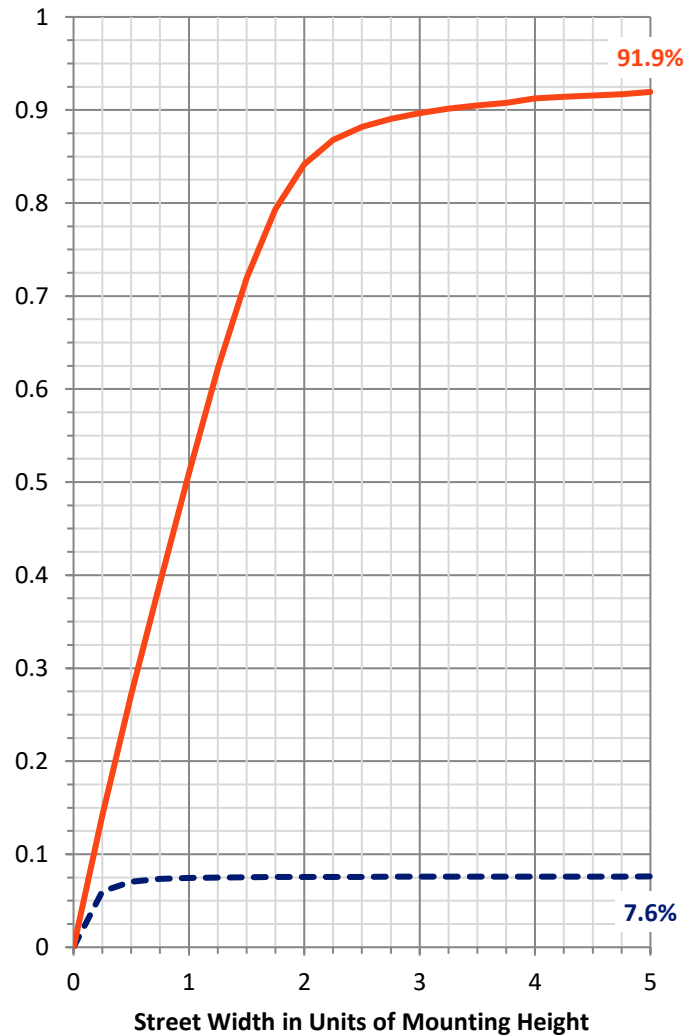
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1899.2	0.0	1899.2
	% Fixture	7.7	0.0	7.7
Street Side	Lumens	22806.8	0.0	22806.8
	% Fixture	92.3	0.0	92.3
Total	Lumens	24706.0	0.0	24706.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	513.7	2.1
10°-20°	1077.5	4.4
20°-30°	1458.6	5.9
30°-40°	2104.9	8.5
40°-50°	3495.8	14.1
50°-60°	5347.2	21.6
60°-70°	6650.7	26.9
70°-80°	3676.5	14.9
80°-90°	381.2	1.5
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°	24706.0	100.0
0°-180°	24706.0	100.0



--- HS — SS

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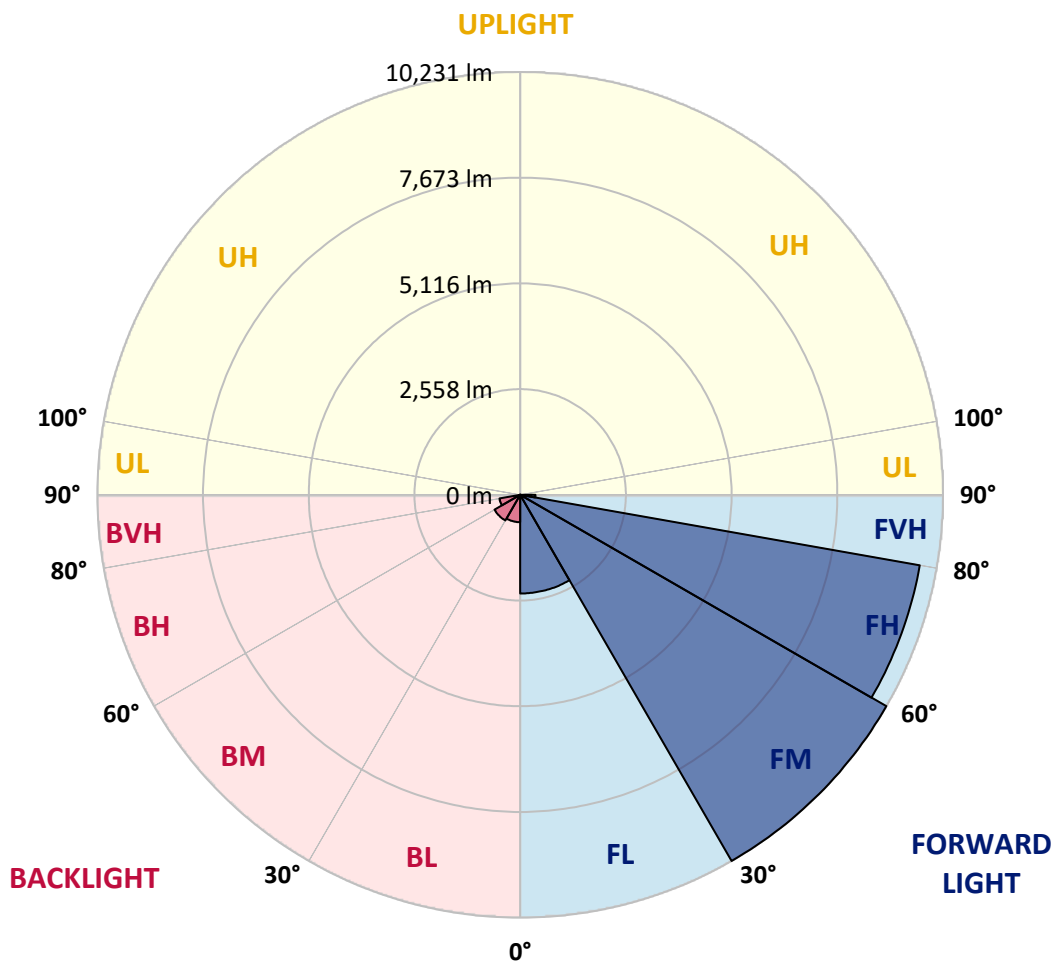
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2387.9	9.7			
FM	(30°-60°)	10231.0	41.4			
FH	(60°-80°)	9817.6	39.7			G4/12000
FVH	(80°-90°)	370.2	1.5			G3/500
BL	(0°-30°)	661.8	2.7	B2/1000		
BM	(30°-60°)	716.9	2.9	B1/1000		
BH	(60°-80°)	509.5	2.1	B2/1000		G2/1000
BVH	(80°-90°)	11.0	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-G4

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	6247.3	6247.3	6247.3	6247.3	6247.3	6247.3	6247.3	6247.3	6247.3	6247.3	6247.3
2.5°	7061.7	7050.5	7003.9	6994.6	6942.4	6838.1	6716.9	6668.5	6569.7	6413.1	6239.8
5°	7179.1	7184.7	7188.4	7167.9	7160.5	7074.8	6940.6	6882.8	6750.5	6493.3	6176.4
7.5°	6739.3	6754.2	6800.8	6821.3	6910.8	6944.3	6916.3	6879.1	6774.7	6470.9	6025.5
10°	6275.2	6303.2	6353.5	6387.0	6497.0	6586.5	6700.1	6709.5	6687.1	6396.4	5855.9
12.5°	5876.4	5902.5	5958.4	6025.5	6137.3	6252.8	6422.4	6482.1	6556.6	6347.9	5734.7
15°	5533.4	5540.9	5594.9	5678.8	5826.1	5984.5	6185.8	6273.4	6418.7	6329.3	5641.5
17.5°	5233.4	5235.2	5270.7	5347.1	5526.0	5734.7	5969.6	6085.1	6269.6	6303.2	5559.5
20°	5035.8	5034.0	5035.8	5076.8	5235.2	5483.1	5768.3	5889.4	6126.1	6271.5	5475.7
22.5°	4968.7	4959.4	4916.5	4901.6	5002.3	5220.3	5561.4	5719.8	5997.5	6262.2	5414.2
25°	5050.7	5045.1	4953.8	4868.1	4877.4	5013.5	5350.8	5544.6	5896.9	6295.7	5399.3
27.5°	5315.4	5304.2	5164.4	4996.7	4890.5	4914.7	5194.2	5397.4	5816.7	6377.7	5419.8
30°	5662.0	5663.9	5514.8	5311.7	5061.9	4924.0	5110.4	5302.3	5762.7	6500.7	5464.5
32.5°	6047.8	6046.0	5939.7	5704.9	5386.2	5095.5	5147.7	5309.8	5770.1	6681.5	5550.2
35°	6446.7	6426.2	6390.8	6183.9	5811.1	5395.5	5317.3	5436.5	5848.4	6920.1	5695.6
37.5°	6907.0	6899.6	6935.0	6716.9	6336.7	5837.2	5615.5	5695.6	6046.0	7272.3	5930.4
40°	7639.5	7598.5	7615.2	7318.9	6929.4	6431.8	6032.9	6053.4	6360.9	7738.3	6301.3
42.5°	9035.4	8869.5	8558.3	8002.9	7581.7	7091.5	6579.0	6543.6	6806.4	8303.0	6789.6
45°	10703.5	10513.4	9728.7	8757.7	8234.0	7799.8	7253.7	7158.6	7354.3	8975.8	7419.6
47.5°	12095.7	11890.7	10850.7	9546.1	8897.5	8530.3	8001.0	7889.2	8010.4	9756.7	8176.2
50°	12570.9	12457.2	11544.0	10202.1	9566.6	9350.4	8938.5	8752.1	8781.9	10599.1	9059.6
52.5°	12352.9	12313.7	11702.4	10651.3	10185.3	10256.2	9965.4	9769.7	9736.2	11519.8	10036.2
55°	11892.5	11873.9	11575.7	10901.0	10731.4	11085.5	11406.1	11236.5	10919.7	12498.2	10843.2
57.5°	11234.6	11305.5	11519.8	11381.9	11402.4	11961.5	12744.3	12831.9	12358.5	13277.3	11441.5
60°	9477.1	9667.2	10649.4	11898.1	12854.2	13418.9	14177.5	14341.5	13577.3	13810.3	12133.0
62.5°	7005.8	7277.9	8677.6	10971.8	13653.8	16190.3	16084.1	16011.4	14740.3	14524.1	13391.0
65°	4115.1	4433.8	5617.3	8573.2	12447.9	17972.1	19643.8	18637.4	16512.7	16007.7	15394.5
67.5°	2050.1	2052.0	2586.9	4525.2	9199.4	16728.9	24839.9	24258.4	20281.2	18193.8	16184.7
70°	1576.7	1619.6	1914.1	2629.7	4651.9	13029.4	26030.9	28418.3	24068.3	18096.9	13732.0
72.5°	1336.3	1364.3	1703.5	2288.7	3477.7	7153.0	22534.5	25119.5	22966.9	15290.1	10122.0
75°	961.7	984.1	1507.8	2076.2	3201.9	3548.6	15457.9	18630.0	17232.1	10755.6	5570.7
77.5°	238.6	236.7	525.6	1684.8	2864.6	2955.9	8869.5	11946.6	9887.1	4404.0	1431.4
80°	106.2	102.5	119.3	354.1	2665.1	2790.0	3900.8	6032.9	3792.7	713.8	438.0
82.5°	74.5	70.8	74.5	130.5	890.9	2588.7	2357.6	2614.8	1388.5	244.2	186.4
85°	24.2	22.4	41.0	110.0	249.7	1492.9	2299.9	1953.2	1032.5	104.4	124.9
87.5°	3.7	3.7	14.9	59.6	72.7	497.6	1349.3	1353.1	464.1	61.5	55.9
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°	6247.3	6247.3	6247.3	6247.3	6247.3	6247.3	6247.3	6247.3	6247.3	6247.3	6247.3
2.5°	6152.2	6042.2	5887.6	5732.9	5593.1	5449.6	5334.0	5280.0	5255.7	5222.2	5149.5
5°	6010.6	5811.1	5471.9	5138.3	4827.1	4528.9	4273.6	4128.2	3971.6	3964.2	3887.8
7.5°	5783.2	5499.9	4965.0	4446.9	3971.6	3516.9	3125.5	2872.0	2698.7	2590.6	2516.0
10°	5529.7	5166.3	4458.1	3729.3	3082.6	2475.0	1971.8	1643.8	1444.4	1343.8	1286.0
12.5°	5328.4	4871.8	3958.6	3041.6	2230.9	1533.9	1066.1	827.5	721.3	680.3	661.6
15°	5155.1	4601.6	3490.8	2426.6	1489.1	881.5	616.9	538.6	521.8	521.8	520.0
17.5°	4979.9	4340.7	3036.0	1822.7	937.5	577.8	486.4	475.3	477.1	482.7	482.7
20°	4814.0	4092.8	2598.1	1299.0	615.0	462.2	441.7	438.0	443.6	451.0	449.2
22.5°	4679.9	3874.7	2188.0	892.7	473.4	419.3	406.3	400.7	404.4	410.0	408.2
25°	4584.8	3688.3	1811.6	622.5	411.9	382.1	367.2	359.7	356.0	359.7	357.8
27.5°	4527.0	3531.8	1457.4	467.8	369.0	344.8	326.2	311.2	301.9	301.9	298.2
30°	4489.8	3384.6	1142.5	387.7	333.6	307.5	281.4	260.9	246.0	242.3	240.4
32.5°	4487.9	3257.8	853.6	342.9	300.1	270.2	238.6	212.5	195.7	192.0	190.1
35°	4534.5	3155.3	628.1	309.4	270.2	234.8	199.4	171.5	156.6	156.6	154.7
37.5°	4655.6	3095.7	475.3	283.3	246.0	205.0	167.7	141.6	128.6	132.3	132.3
40°	4881.1	3084.5	387.7	262.8	225.5	178.9	136.1	115.6	110.0	115.6	115.6
42.5°	5225.9	3144.1	344.8	247.9	206.9	152.8	113.7	98.8	96.9	102.5	102.5
45°	5675.1	3261.5	320.6	234.8	186.4	126.7	95.1	85.7	83.9	91.3	91.3
47.5°	6219.3	3420.0	298.2	219.9	165.9	104.4	80.1	72.7	72.7	80.1	82.0
50°	6864.2	3634.3	275.8	205.0	149.1	87.6	67.1	61.5	63.4	70.8	72.7
52.5°	7605.9	3897.1	255.3	192.0	130.5	70.8	55.9	52.2	54.0	61.5	63.4
55°	8245.2	4126.3	231.1	178.9	106.2	57.8	46.6	44.7	46.6	55.9	55.9
57.5°	8802.4	4346.2	208.7	158.4	83.9	46.6	37.3	37.3	41.0	50.3	52.2
60°	9542.4	4692.9	190.1	134.2	63.4	35.4	29.8	31.7	37.3	44.7	46.6
62.5°	10852.6	5281.8	165.9	111.8	46.6	28.0	24.2	26.1	33.5	42.9	44.7
65°	12492.7	5839.1	137.9	93.2	35.4	20.5	18.6	24.2	33.5	42.9	44.7
67.5°	12324.9	5078.7	108.1	74.5	26.1	16.8	14.9	22.4	31.7	42.9	44.7
70°	9995.2	3559.7	80.1	50.3	20.5	14.9	14.9	22.4	31.7	41.0	42.9
72.5°	6933.1	1981.2	61.5	33.5	18.6	14.9	13.0	20.5	29.8	41.0	42.9
75°	3298.8	607.6	48.5	24.2	16.8	13.0	11.2	20.5	29.8	41.0	42.9
77.5°	633.7	154.7	39.1	20.5	14.9	13.0	11.2	18.6	29.8	39.1	41.0
80°	214.3	69.0	31.7	18.6	14.9	13.0	11.2	18.6	28.0	37.3	39.1
82.5°	117.4	39.1	28.0	16.8	14.9	11.2	9.3	16.8	26.1	37.3	39.1
85°	91.3	28.0	22.4	16.8	14.9	11.2	9.3	16.8	26.1	35.4	37.3
87.5°	46.6	20.5	18.6	16.8	14.9	11.2	9.3	14.9	24.2	33.5	37.3
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)