

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: P270677

Luminaire Tested: **NAV-AF-06-D-UNV-SL3-7027-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270677
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-SL3-7027-800-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 2700K, 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: 21465 lumens
Efficiency: N/A
Efficacy: 86.2 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

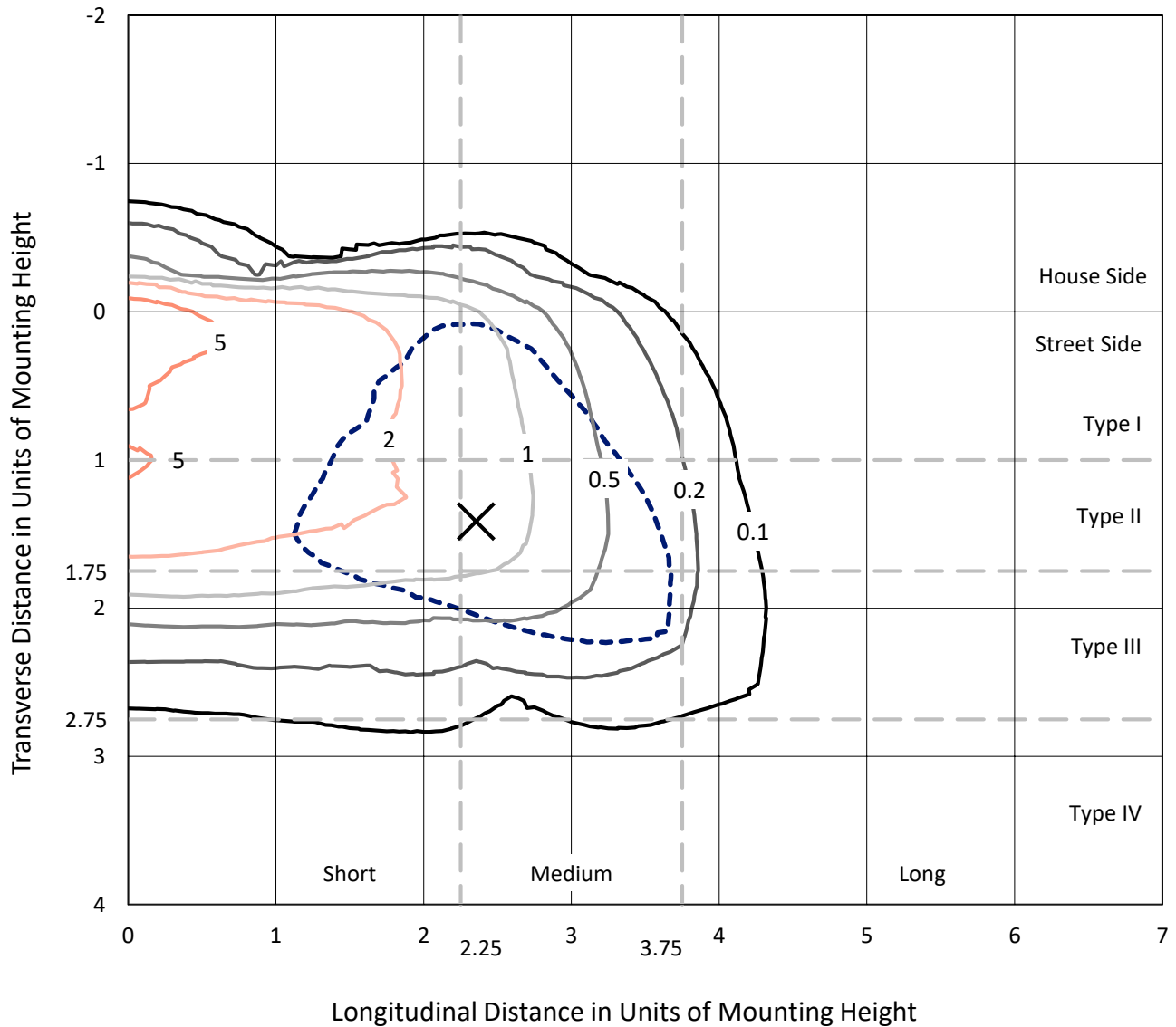


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

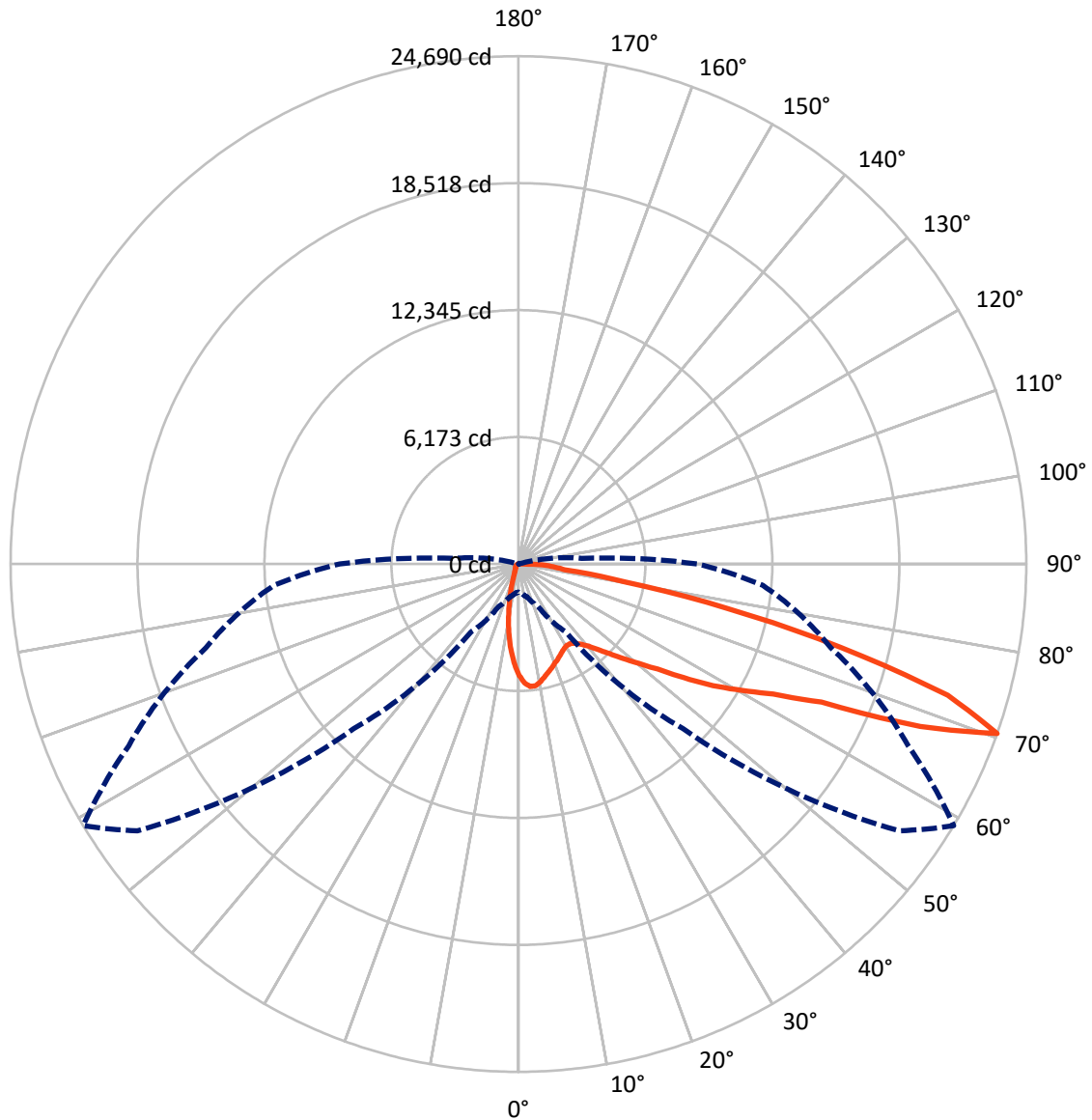


Based on 25 foot mounting height. Maximum calculated value = 9.2 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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

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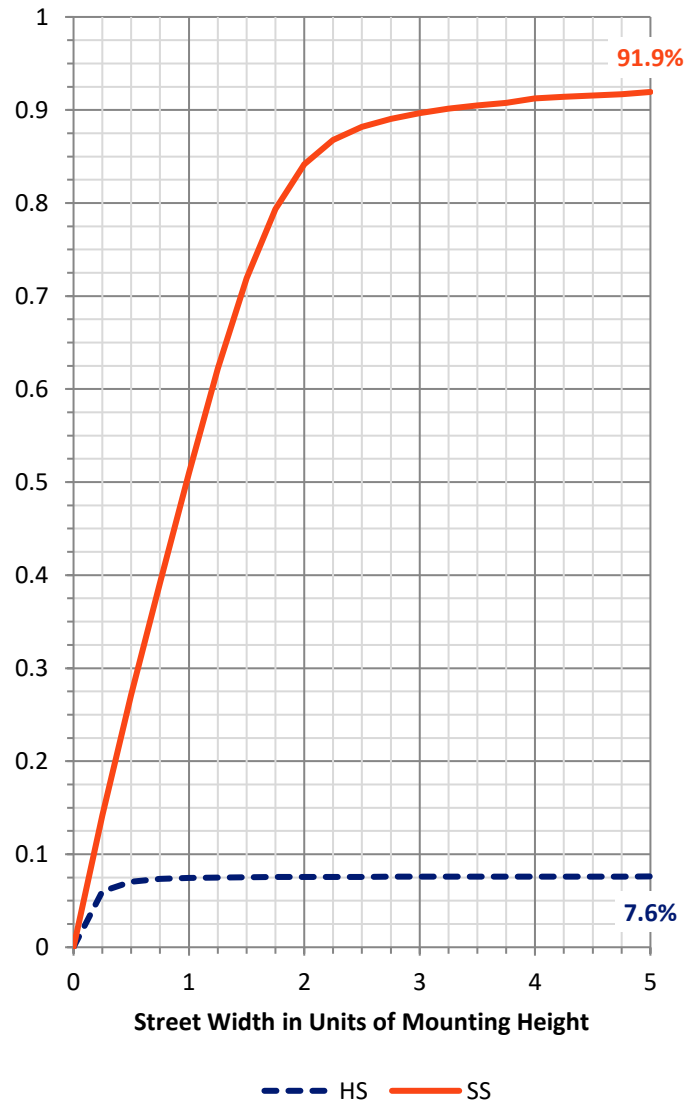
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1650.1	0.0	1650.1
	% Fixture	7.7	0.0	7.7
Street Side	Lumens	19814.9	0.0	19814.9
	% Fixture	92.3	0.0	92.3
Total	Lumens	21465.0	0.0	21465.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	446.3	2.1
10°-20°	936.1	4.4
20°-30°	1267.2	5.9
30°-40°	1828.8	8.5
40°-50°	3037.2	14.1
50°-60°	4645.7	21.6
60°-70°	5778.2	26.9
70°-80°	3194.2	14.9
80°-90°	331.2	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°	21465.0	100.0
0°-180°	21465.0	100.0



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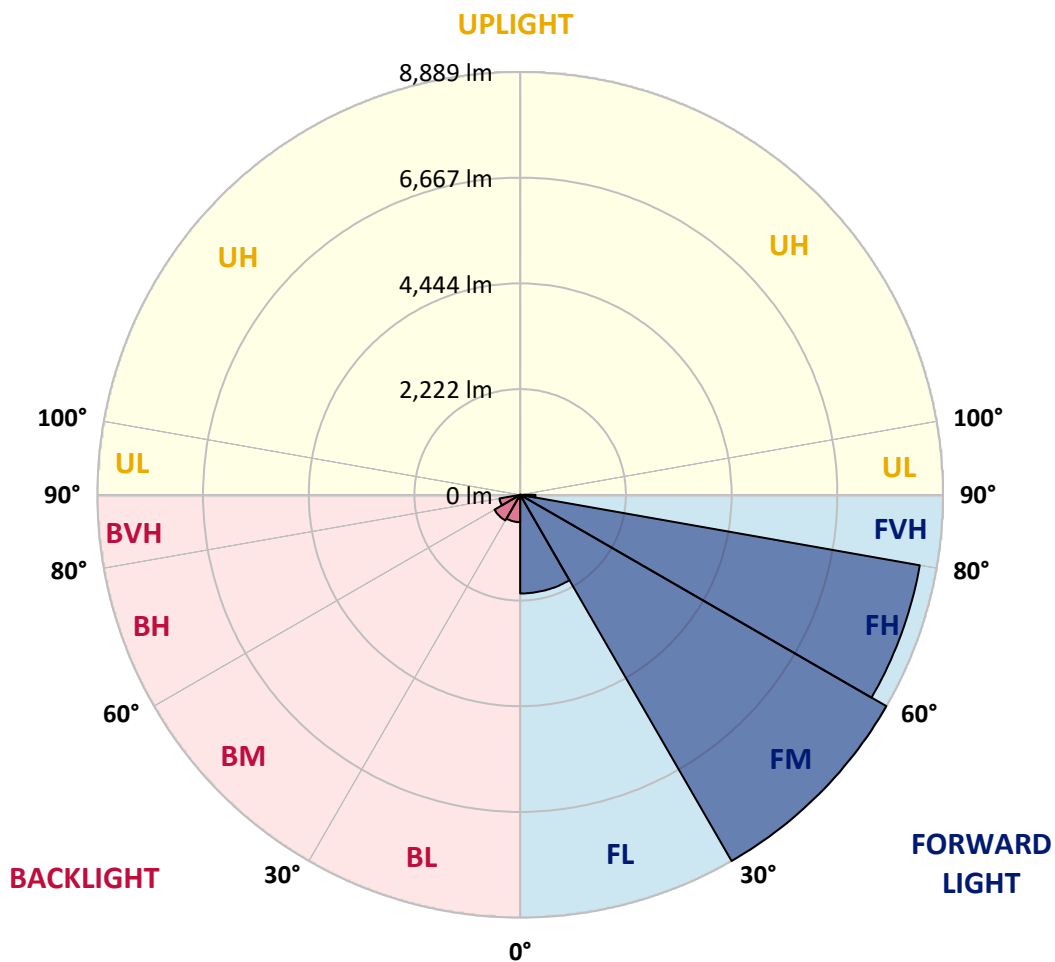
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2074.7	9.7			
FM (30°-60°)	8888.9	41.4			
FH (60°-80°)	8529.7	39.7			G4/12000
FVH (80°-90°)	321.6	1.5			G3/500
BL (0°-30°)	575.0	2.7	B2/1000		
BM (30°-60°)	622.9	2.9	B1/1000		
BH (60°-80°)	442.6	2.1	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-G4

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	5427.6	5427.6	5427.6	5427.6	5427.6	5427.6	5427.6	5427.6	5427.6	5427.6	5427.6
2.5°	6135.3	6125.6	6085.2	6077.0	6031.7	5941.0	5835.7	5793.7	5707.9	5571.8	5421.2
5°	6237.3	6242.2	6245.5	6227.6	6221.1	6146.7	6030.1	5979.8	5864.9	5641.4	5366.1
7.5°	5855.2	5868.2	5908.6	5926.5	6004.2	6033.3	6009.0	5976.7	5886.0	5622.0	5235.1
10°	5452.1	5476.2	5520.1	5549.2	5644.7	5722.5	5821.1	5829.3	5809.9	5557.3	5087.7
12.5°	5105.4	5128.2	5176.8	5235.1	5332.2	5432.6	5579.9	5631.7	5696.5	5515.1	4982.4
15°	4807.5	4814.0	4861.0	4933.9	5061.8	5199.4	5374.3	5450.3	5576.7	5499.0	4901.5
17.5°	4546.9	4548.5	4579.2	4645.7	4801.1	4982.4	5186.5	5286.9	5447.1	5476.2	4830.2
20°	4375.3	4373.6	4375.3	4410.9	4548.5	4763.8	5011.6	5116.8	5322.5	5448.8	4757.3
22.5°	4317.0	4308.8	4271.6	4258.7	4346.1	4535.5	4831.9	4969.5	5210.8	5440.7	4704.0
25°	4388.2	4383.3	4304.0	4229.5	4237.6	4355.8	4648.9	4817.3	5123.4	5469.8	4690.9
27.5°	4618.0	4608.3	4486.9	4341.1	4249.0	4270.0	4512.8	4689.3	5053.7	5541.0	4708.7
30°	4919.3	4920.8	4791.4	4614.9	4397.9	4278.1	4440.1	4606.8	5006.8	5648.0	4747.6
32.5°	5254.5	5252.8	5160.6	4956.5	4679.6	4427.0	4472.4	4613.2	5013.3	5804.9	4822.1
35°	5601.0	5583.1	5552.5	5372.7	5048.8	4687.7	4619.8	4723.4	5081.3	6012.3	4948.5
37.5°	6000.9	5994.5	6025.2	5835.7	5505.4	5071.6	4878.9	4948.5	5252.8	6318.3	5152.5
40°	6637.2	6601.6	6616.2	6358.8	6020.4	5588.0	5241.5	5259.3	5526.6	6723.2	5474.7
42.5°	7850.1	7706.0	7435.6	6953.1	6587.1	6161.2	5715.9	5685.3	5913.5	7213.7	5898.9
45°	9299.3	9134.1	8452.5	7608.9	7153.8	6776.5	6302.1	6219.5	6389.6	7798.2	6446.2
47.5°	10508.9	10330.8	9427.3	8293.8	7730.4	7411.2	6951.4	6854.2	6959.4	8476.8	7103.6
50°	10921.9	10823.0	10029.7	8863.8	8311.6	8123.8	7765.8	7604.1	7629.9	9208.6	7871.2
52.5°	10732.4	10698.4	10167.2	9254.0	8849.3	8910.7	8658.1	8488.2	8459.0	10008.6	8719.7
55°	10332.5	10316.2	10057.2	9471.0	9323.7	9631.3	9909.8	9762.5	9487.2	10858.7	9420.7
57.5°	9760.9	9822.3	10008.6	9888.7	9906.6	10392.3	11072.4	11148.5	10737.3	11535.6	9940.6
60°	8233.9	8399.1	9252.5	10337.2	11168.0	11658.7	12317.6	12460.1	11796.3	11998.7	10541.3
62.5°	6086.7	6323.2	7539.3	9532.5	11862.6	14066.4	13974.2	13911.0	12806.6	12618.9	11634.3
65°	3575.3	3852.2	4880.4	7448.6	10815.0	15614.3	17066.9	16192.5	14346.6	13907.6	13375.0
67.5°	1781.2	1782.7	2247.5	3931.5	7992.6	14534.3	21581.4	21076.2	17620.7	15807.1	14061.6
70°	1369.8	1407.1	1662.9	2284.7	4041.7	11320.3	22616.1	24690.4	20910.9	15722.9	11930.6
72.5°	1161.0	1185.4	1480.0	1988.5	3021.4	6214.7	19578.4	21824.2	19954.1	13284.3	8794.1
75°	835.6	854.9	1310.0	1803.8	2782.0	3083.1	13430.1	16186.0	14971.6	9344.7	4840.0
77.5°	207.2	205.6	456.6	1463.8	2488.8	2568.2	7706.0	10379.3	8590.1	3826.3	1243.6
80°	92.3	89.0	103.7	307.7	2315.6	2424.0	3389.0	5241.5	3295.2	620.2	380.5
82.5°	64.8	61.5	64.8	113.4	774.0	2249.1	2048.3	2271.9	1206.3	212.1	162.0
85°	21.0	19.5	35.7	95.5	217.0	1297.1	1998.2	1697.0	897.0	90.6	108.4
87.5°	3.2	3.2	12.9	51.8	63.2	432.4	1172.4	1175.6	403.2	53.4	48.6
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°	5427.6	5427.6	5427.6	5427.6	5427.6	5427.6	5427.6	5427.6	5427.6	5427.6	5427.6
2.5°	5345.2	5249.6	5115.2	4980.8	4859.4	4734.6	4634.3	4587.4	4566.3	4537.1	4474.0
5°	5222.0	5048.8	4754.1	4464.2	4193.8	3934.8	3713.0	3586.7	3450.6	3444.1	3377.7
7.5°	5024.5	4778.4	4313.8	3863.5	3450.6	3055.6	2715.4	2495.2	2344.7	2250.8	2185.9
10°	4804.3	4488.7	3873.2	3240.1	2678.2	2150.4	1713.2	1428.1	1254.9	1167.4	1117.3
12.5°	4629.4	4232.8	3439.3	2642.6	1938.3	1332.6	926.2	719.0	626.7	591.1	574.8
15°	4478.9	3997.9	3032.9	2108.2	1293.7	766.0	536.0	467.9	453.4	453.4	451.8
17.5°	4326.6	3771.3	2637.8	1583.6	814.6	502.0	422.7	413.0	414.5	419.4	419.4
20°	4182.5	3555.9	2257.3	1128.6	534.3	401.6	383.8	380.5	385.5	391.9	390.3
22.5°	4066.0	3366.4	1901.1	775.6	411.2	364.4	353.0	348.2	351.3	356.3	354.7
25°	3983.4	3204.6	1573.9	540.8	357.9	332.0	319.0	312.5	309.2	312.5	311.0
27.5°	3933.1	3068.5	1266.3	406.5	320.6	299.6	283.3	270.4	262.3	262.3	259.2
30°	3900.8	2940.5	992.5	336.9	289.9	267.2	244.5	226.7	213.7	210.6	208.9
32.5°	3899.2	2830.5	741.6	298.0	260.7	234.7	207.2	184.6	170.0	166.7	165.2
35°	3939.6	2741.4	545.7	268.9	234.7	204.1	173.3	148.9	136.1	136.1	134.3
37.5°	4044.9	2689.5	413.0	246.1	213.7	178.1	145.7	123.1	111.7	115.0	115.0
40°	4240.8	2679.9	336.9	228.3	195.9	155.4	118.1	100.4	95.5	100.4	100.4
42.5°	4540.4	2731.7	299.6	215.4	179.8	132.8	98.8	85.8	84.3	89.0	89.0
45°	4930.5	2833.8	278.6	204.1	162.0	110.1	82.6	74.5	72.9	79.3	79.3
47.5°	5403.5	2971.4	259.2	191.1	144.1	90.6	69.6	63.2	63.2	69.6	71.2
50°	5963.7	3157.5	239.7	178.1	129.5	76.0	58.3	53.4	55.1	61.5	63.2
52.5°	6608.1	3385.8	221.8	166.7	113.4	61.5	48.6	45.4	46.9	53.4	55.1
55°	7163.5	3585.0	200.9	155.4	92.3	50.1	40.5	38.8	40.5	48.6	48.6
57.5°	7647.7	3776.0	181.4	137.6	72.9	40.5	32.3	32.3	35.7	43.7	45.4
60°	8290.5	4077.2	165.2	116.6	55.1	30.7	26.0	27.5	32.3	38.8	40.5
62.5°	9428.9	4588.9	144.1	97.1	40.5	24.3	21.0	22.6	29.1	37.2	38.8
65°	10853.9	5073.1	119.8	80.9	30.7	17.7	16.2	21.0	29.1	37.2	38.8
67.5°	10708.1	4412.5	94.0	64.8	22.6	14.6	12.9	19.5	27.5	37.2	38.8
70°	8684.0	3092.8	69.6	43.7	17.7	12.9	12.9	19.5	27.5	35.7	37.2
72.5°	6023.7	1721.2	53.4	29.1	16.2	12.9	11.3	17.7	26.0	35.7	37.2
75°	2866.0	527.8	42.1	21.0	14.6	11.3	9.7	17.7	26.0	35.7	37.2
77.5°	550.5	134.3	34.0	17.7	12.9	11.3	9.7	16.2	26.0	34.0	35.7
80°	186.2	59.8	27.5	16.2	12.9	11.3	9.7	16.2	24.3	32.3	34.0
82.5°	102.0	34.0	24.3	14.6	12.9	9.7	8.1	14.6	22.6	32.3	34.0
85°	79.3	24.3	19.5	14.6	12.9	9.7	8.1	14.6	22.6	30.7	32.3
87.5°	40.5	17.7	16.2	14.6	12.9	9.7	8.1	12.9	21.0	29.1	32.3
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)