

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: McGRAW-EDISON

Report Number: P651371

Luminaire Tested: **GALN-SA4D-840-U-T3R-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P651371  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GALN-SA4D-840-U-T3R-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20150.4 lumens  
Efficiency: N/A  
Efficacy: 82.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G4

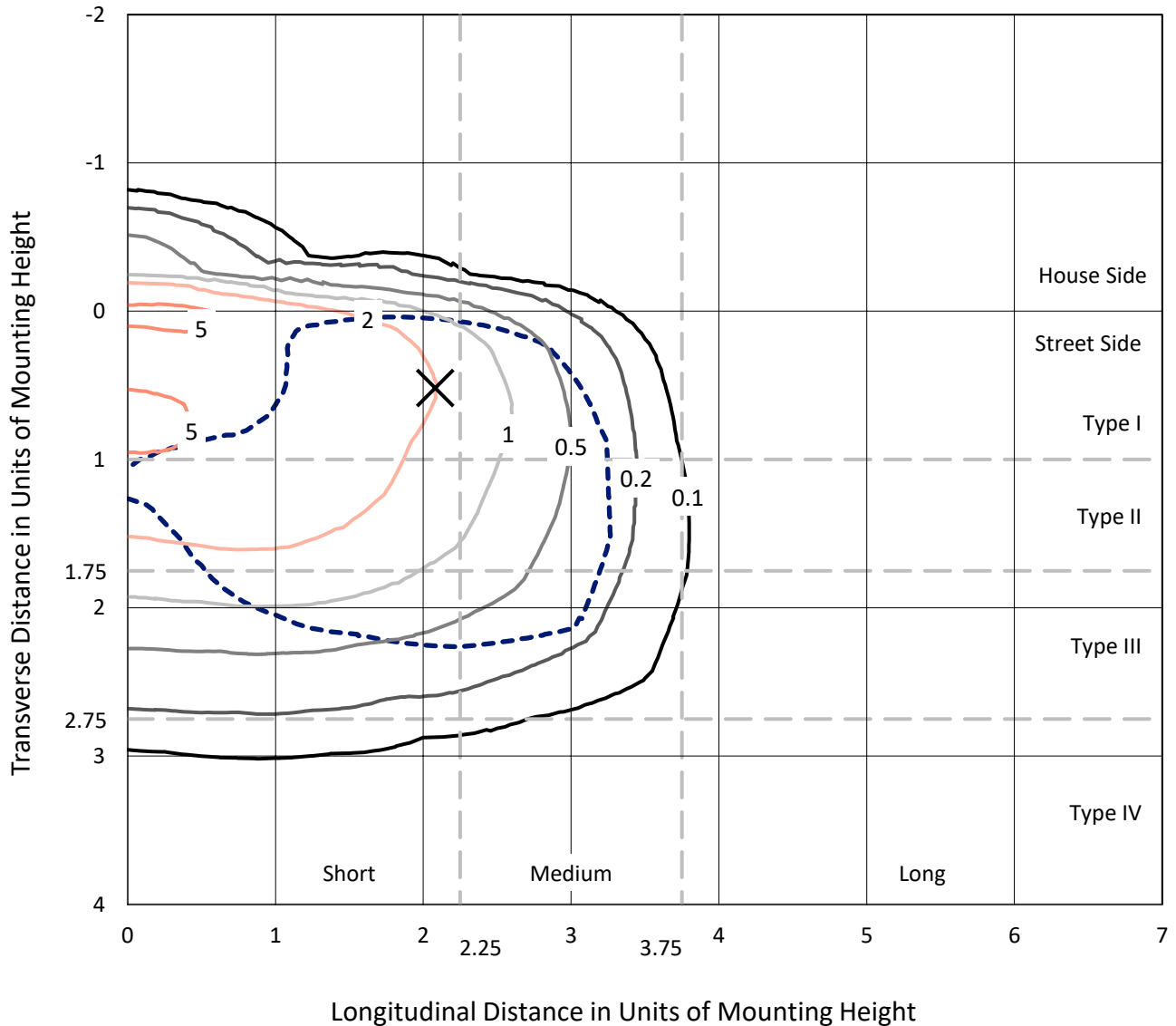
Input Watts (W): 245  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

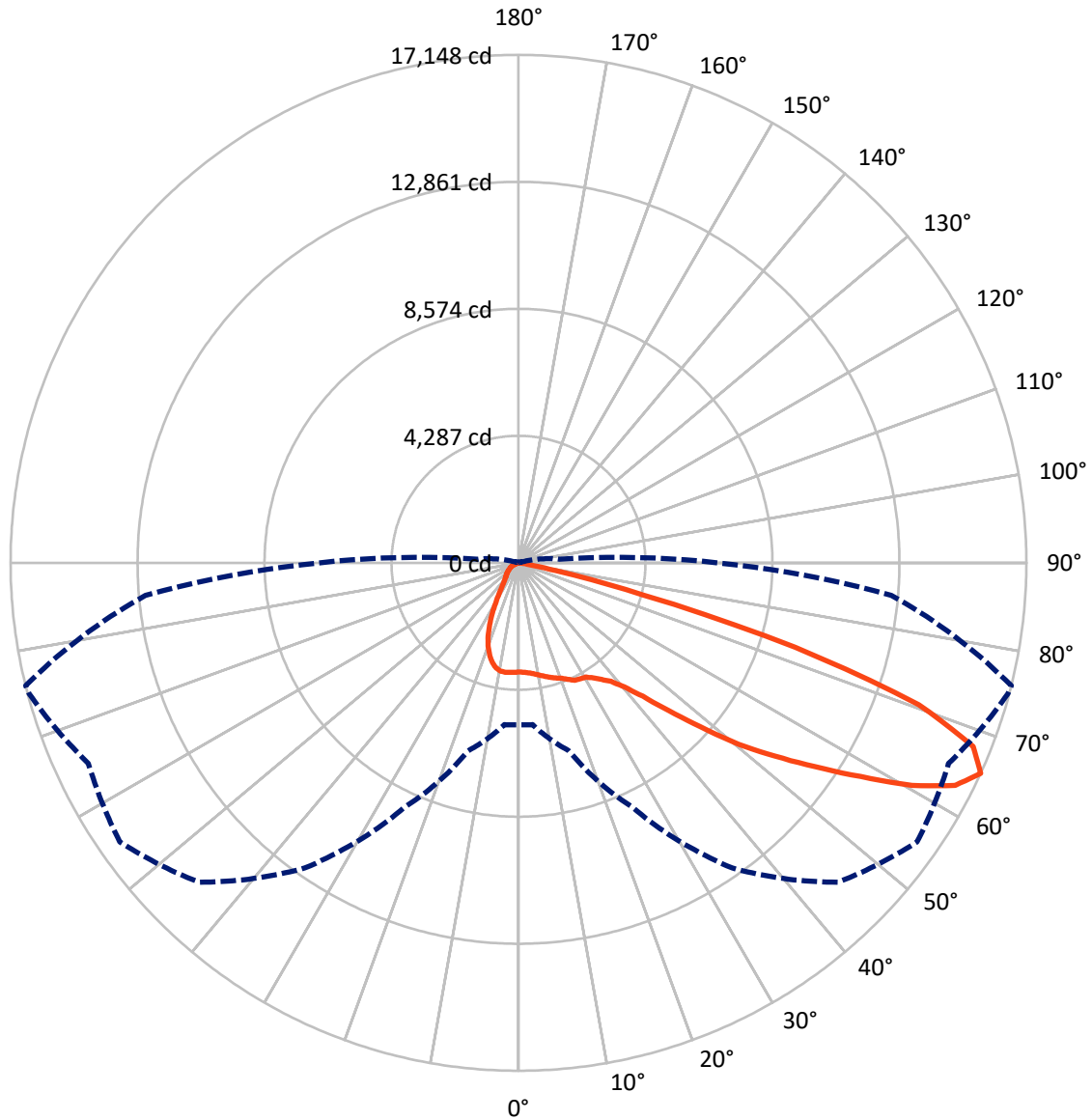
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.2 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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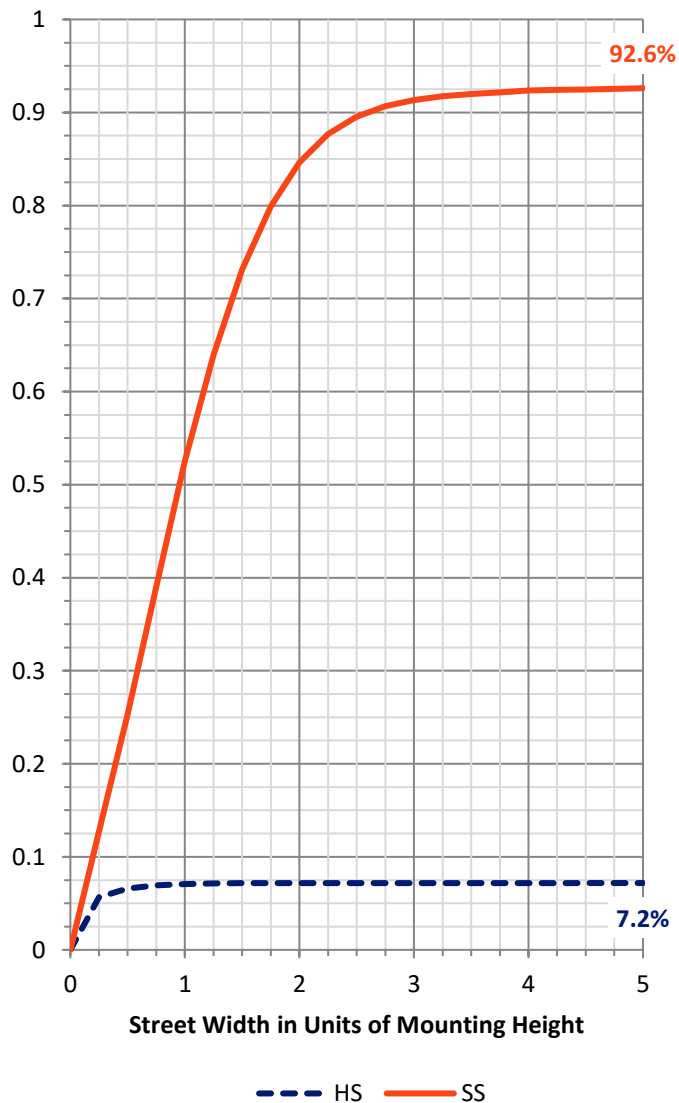
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1455.2	0.0	1455.2
	% Fixture	7.2	0.0	7.2
<b>Street Side</b>	Lumens	18695.1	0.0	18695.1
	% Fixture	92.8	0.0	92.8
<b>Total</b>	Lumens	20150.4	0.0	20150.4
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	303.6	1.5
10°-20°	676.1	3.4
20°-30°	1089.5	5.4
30°-40°	1894.3	9.4
40°-50°	3130.3	15.5
50°-60°	4835.6	24.0
60°-70°	5905.0	29.3
70°-80°	2241.1	11.1
80°-90°	74.8	0.4
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°	20150.4	100.0
0°-180°	20150.4	100.0

**Coefficient of Utilization**

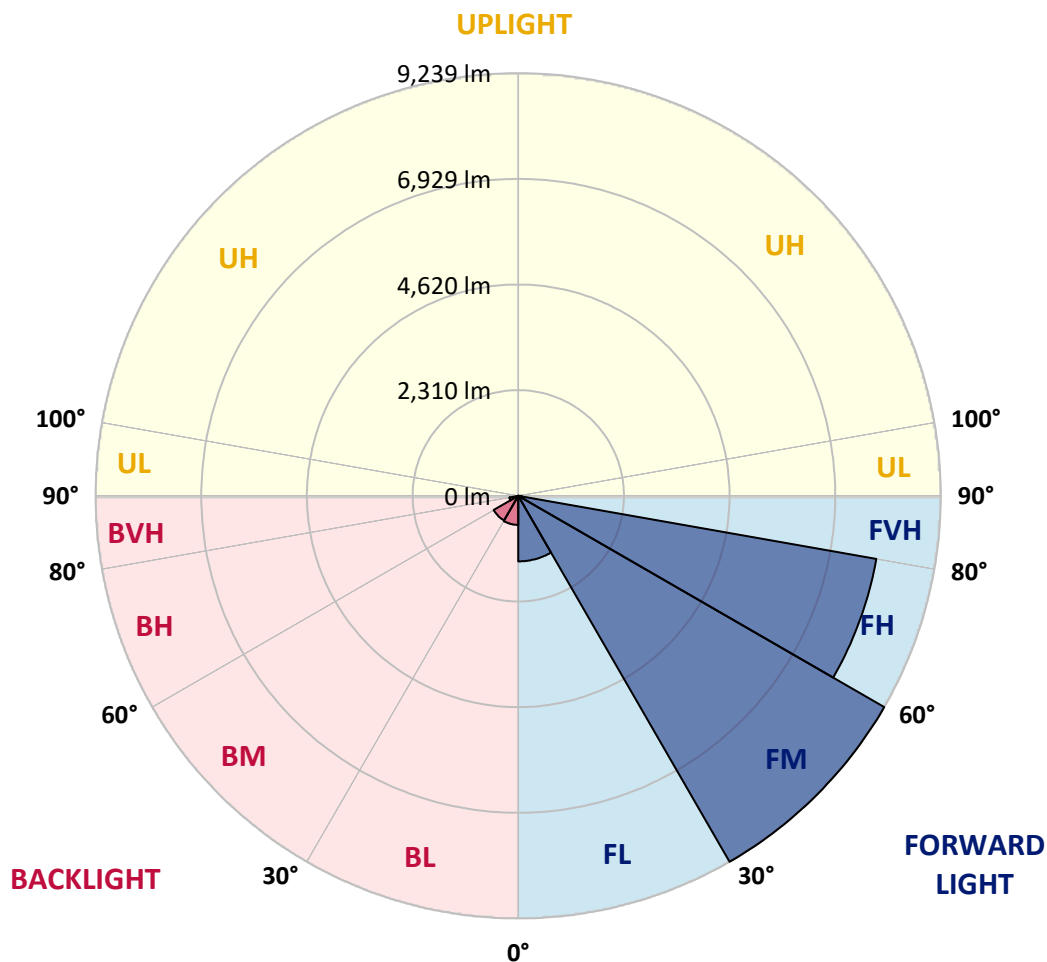


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1433.5	7.1			
FM (30°-60°)	9239.2	45.9			
FH (60°-80°)	7948.6	39.4			G4/12000
FVH (80°-90°)	73.8	0.4			G1/100
BL (0°-30°)	635.8	3.2	B2/1000		
BM (30°-60°)	621.0	3.1	B1/1000		
BH (60°-80°)	197.5	1.0	B1/500		G1/500
BVH (80°-90°)	1.0	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 Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	3686.1	3686.1	3686.1	3686.1	3686.1	3686.1	3686.1	3686.1	3686.1	3686.1	3686.1
2.5°	3522.5	3524.0	3532.5	3553.8	3586.5	3613.6	3636.3	3673.3	3699.0	3701.8	3710.3
5°	3279.2	3262.2	3279.2	3334.7	3384.5	3460.0	3552.4	3644.9	3727.4	3733.1	3772.9
7.5°	3006.1	3020.4	3047.4	3104.3	3198.2	3313.4	3447.2	3612.2	3768.7	3782.9	3861.1
10°	2728.7	2760.0	2804.1	2890.9	3021.8	3171.2	3353.2	3589.4	3834.1	3854.1	3989.2
12.5°	2472.6	2486.8	2540.9	2657.6	2819.7	3030.3	3282.1	3576.6	3906.7	3930.8	4125.8
15°	2276.3	2294.8	2341.7	2447.0	2627.7	2898.0	3223.8	3572.3	3977.8	4011.9	4262.4
17.5°	2239.2	2250.7	2270.6	2341.7	2499.6	2792.7	3171.2	3570.9	4046.1	4087.3	4388.9
20°	2391.6	2381.5	2361.6	2354.5	2441.3	2711.6	3132.7	3582.3	4111.6	4158.5	4522.6
22.5°	2772.8	2785.6	2668.9	2530.9	2502.5	2698.8	3127.0	3636.3	4215.3	4270.9	4672.1
25°	3582.3	3484.1	3302.0	2971.9	2723.0	2777.1	3191.1	3764.4	4336.3	4397.5	4807.2
27.5°	4477.1	4447.3	4164.1	3620.7	3156.9	2942.1	3304.9	3862.5	4376.1	4438.7	4884.0
30°	5356.3	5391.9	5067.5	4467.2	3787.2	3247.9	3411.6	3899.5	4411.7	4477.1	4982.2
32.5°	6171.6	6214.2	5929.7	5335.1	4529.8	3777.2	3595.1	4043.3	4561.1	4627.9	5145.8
35°	6813.2	6818.8	6604.0	6130.3	5340.7	4420.2	3992.1	4295.1	4763.1	4841.4	5319.4
37.5°	7402.1	7393.7	7141.9	6733.5	6016.5	5059.0	4491.4	4585.3	4993.6	5074.7	5569.8
40°	7839.0	7844.6	7763.5	7379.4	6646.8	5649.4	4886.9	4857.0	5380.5	5507.2	5933.9
42.5°	8130.5	8183.2	8223.0	8028.1	7439.1	6376.4	5494.3	5438.9	6052.1	6157.3	6449.0
45°	8366.8	8460.6	8659.8	8649.9	8200.3	7268.4	6328.0	6214.2	7003.8	7116.2	7104.9
47.5°	8538.8	8634.2	8964.2	9163.5	8915.9	8133.4	7376.6	7278.4	8140.5	8262.9	7829.0
50°	8627.1	8740.9	9162.0	9547.5	9475.0	8967.1	8571.6	8577.3	9513.4	9631.5	8668.4
52.5°	8420.8	8568.8	9267.3	9961.6	10102.4	9765.2	9691.3	9879.1	10735.4	10836.5	9426.6
55°	7762.1	7948.5	9123.6	10314.4	10829.4	10707.0	10963.1	11249.0	12071.4	12136.8	10204.9
57.5°	7345.3	7543.0	8699.6	10614.6	11702.9	11890.7	12296.2	12505.2	13449.9	13616.4	11098.3
60°	6993.8	7148.9	8351.0	10678.6	12590.6	13339.0	13733.0	13949.3	15151.5	15259.6	12081.3
62.5°	6409.2	6587.0	7762.1	10231.9	13037.4	14498.4	15315.0	15218.3	16467.5	16542.8	12684.6
65°	5468.8	5484.4	6567.0	9109.4	12576.4	15251.0	16426.2	16020.7	17096.3	17147.5	12637.6
67.5°	4081.6	4232.4	5051.9	7160.3	10623.1	14608.0	16786.1	16042.1	16699.3	16557.0	11634.6
70°	2629.1	2744.4	3424.4	4965.1	7659.7	12190.9	15592.5	14942.3	14656.4	14340.6	9523.4
72.5°	1213.6	1361.5	2034.5	2836.8	4542.6	8684.0	12657.6	12139.7	10549.1	9769.5	6053.4
75°	529.2	566.2	1004.4	1496.6	2129.7	4592.4	8345.4	7535.9	4764.5	4351.9	2422.8
77.5°	322.9	347.2	526.4	802.4	836.5	1749.9	4495.6	3287.8	1472.5	1298.9	657.2
80°	219.1	246.2	382.7	419.7	285.9	487.9	1687.3	877.8	297.4	284.5	140.9
82.5°	106.7	135.1	283.1	234.7	123.8	156.5	490.8	187.8	86.8	81.1	49.8
85°	15.6	27.0	159.4	153.7	55.5	37.0	86.8	46.9	29.9	28.4	22.8
87.5°	0.0	0.0	54.1	24.2	5.7	5.7	9.9	9.9	11.4	9.9	11.4
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°	3686.1	3686.1	3686.1	3686.1	3686.1	3686.1	3686.1	3686.1	3686.1	3686.1	3686.1
2.5°	3714.6	3721.7	3694.7	3656.2	3615.0	3573.7	3515.5	3462.8	3431.4	3450.0	3404.5
5°	3781.5	3775.8	3704.6	3588.0	3432.9	3246.5	3061.6	2903.6	2852.4	2775.6	2767.1
7.5°	3873.9	3858.3	3707.5	3440.0	3090.0	2740.1	2398.6	2172.4	2043.0	1933.4	1936.2
10°	4003.4	3957.9	3674.7	3179.7	2603.5	2075.7	1640.4	1341.6	1212.1	1170.8	1138.1
12.5°	4137.1	4048.9	3583.8	2828.3	2027.3	1418.4	997.3	815.2	735.5	709.9	707.0
15°	4256.6	4117.2	3424.4	2405.8	1473.9	906.3	680.0	620.3	610.3	611.7	610.3
17.5°	4374.7	4171.3	3203.9	1957.6	1001.5	650.2	584.7	570.5	574.7	580.5	579.0
20°	4472.9	4182.6	2922.1	1493.8	708.5	570.5	549.2	546.3	550.6	554.8	554.8
22.5°	4579.6	4191.2	2587.8	1034.3	579.0	530.7	519.2	519.2	525.0	530.7	532.1
25°	4659.2	4144.3	2188.0	742.6	510.7	492.2	486.5	487.9	493.7	496.5	495.1
27.5°	4672.1	4011.9	1764.1	569.1	463.8	445.3	439.6	445.3	438.2	442.5	439.6
30°	4683.4	3844.0	1334.5	479.5	421.1	392.7	384.1	375.6	369.9	362.8	361.4
32.5°	4719.0	3646.3	974.6	431.1	381.3	349.9	330.1	305.9	287.4	281.7	280.3
35°	4734.7	3408.7	715.6	392.7	345.7	311.6	276.0	241.9	214.8	204.9	212.0
37.5°	4794.4	3178.2	554.8	364.2	314.4	271.7	226.2	183.5	157.9	152.2	155.1
40°	4916.7	2927.9	465.2	340.0	287.4	234.7	179.2	138.0	120.9	115.2	113.8
42.5°	5113.1	2678.9	414.0	317.2	260.4	197.7	140.9	108.2	93.9	89.7	89.7
45°	5352.1	2439.9	378.4	293.1	231.9	159.4	110.9	86.8	78.2	75.4	75.4
47.5°	5666.5	2230.8	348.6	268.9	200.6	126.7	89.7	75.4	69.7	71.1	72.6
50°	5985.1	2075.7	315.8	241.9	165.0	103.9	76.8	66.9	65.4	66.9	66.9
52.5°	6225.6	1984.6	271.7	204.9	129.4	86.8	68.3	62.6	61.1	58.4	58.4
55°	6550.0	1964.7	216.2	166.4	102.4	72.6	61.1	56.9	52.6	49.8	48.4
57.5°	6966.8	1987.5	166.4	129.4	79.6	59.7	54.1	46.9	41.3	35.6	35.6
60°	7225.8	1936.2	129.4	99.6	58.4	48.4	41.3	34.1	27.0	22.8	21.4
62.5°	7143.2	1720.0	102.4	74.0	41.3	35.6	27.0	22.8	15.6	11.4	9.9
65°	6717.8	1388.5	82.5	51.2	29.9	21.4	14.2	14.2	7.1	1.4	0.0
67.5°	5879.9	1028.6	65.4	34.1	17.1	9.9	7.1	4.3	0.0	0.0	0.0
70°	4785.9	742.6	51.2	21.4	9.9	7.1	2.9	1.4	0.0	0.0	0.0
72.5°	3038.9	425.4	39.9	12.8	7.1	2.9	0.0	0.0	0.0	0.0	0.0
75°	1175.1	166.4	27.0	8.5	2.9	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	332.9	78.2	15.6	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	86.8	34.1	8.5	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	41.3	14.2	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	24.2	5.7	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	11.4	1.4	0.0	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)