

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: P453809

Luminaire Tested: **GALN-SA4D-760-U-T3R-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453809
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-760-U-T3R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 5700K, 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: 23960 lumens
Efficiency: N/A
Efficacy: 97.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G4

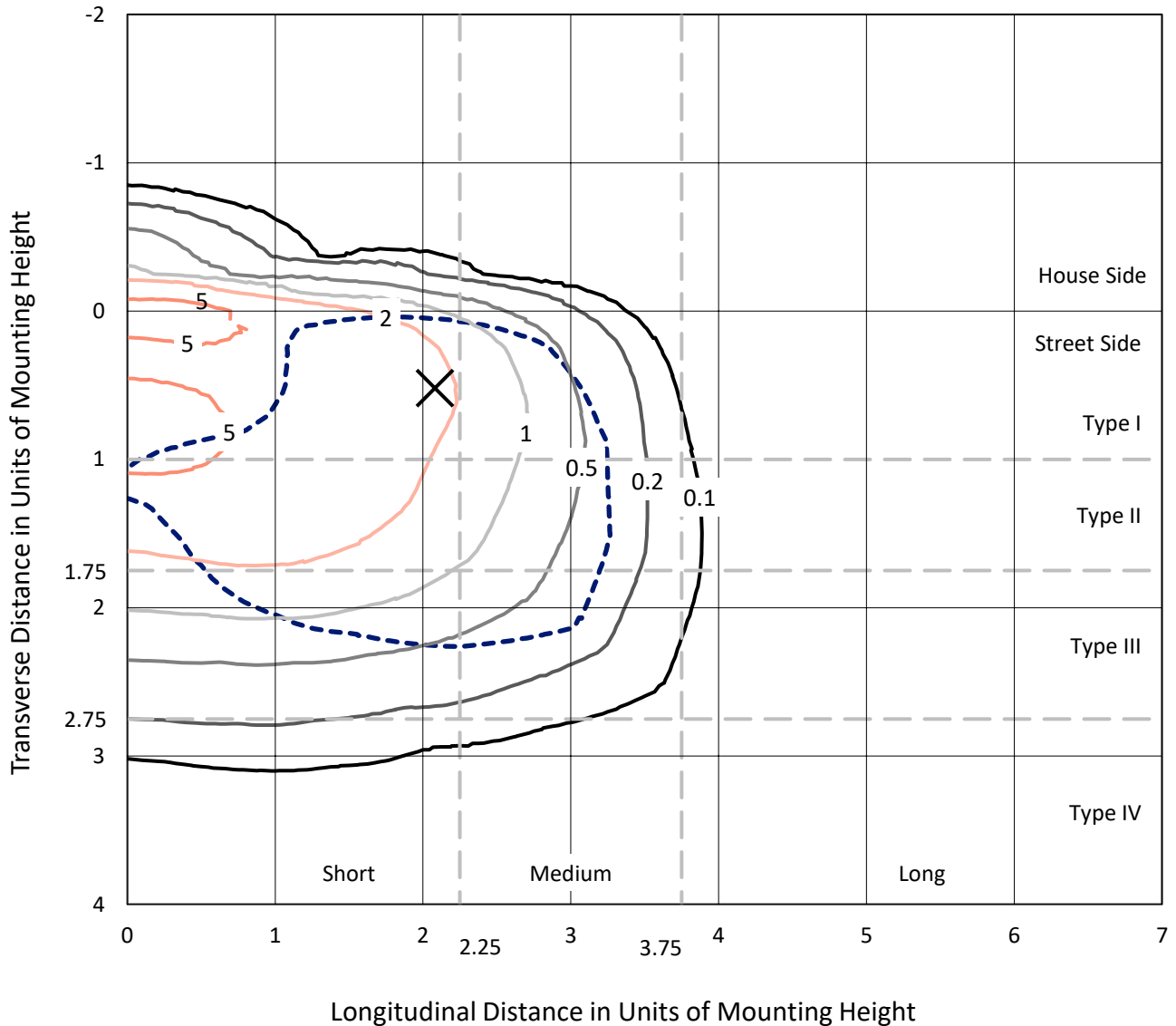
Input Watts (W): 245
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

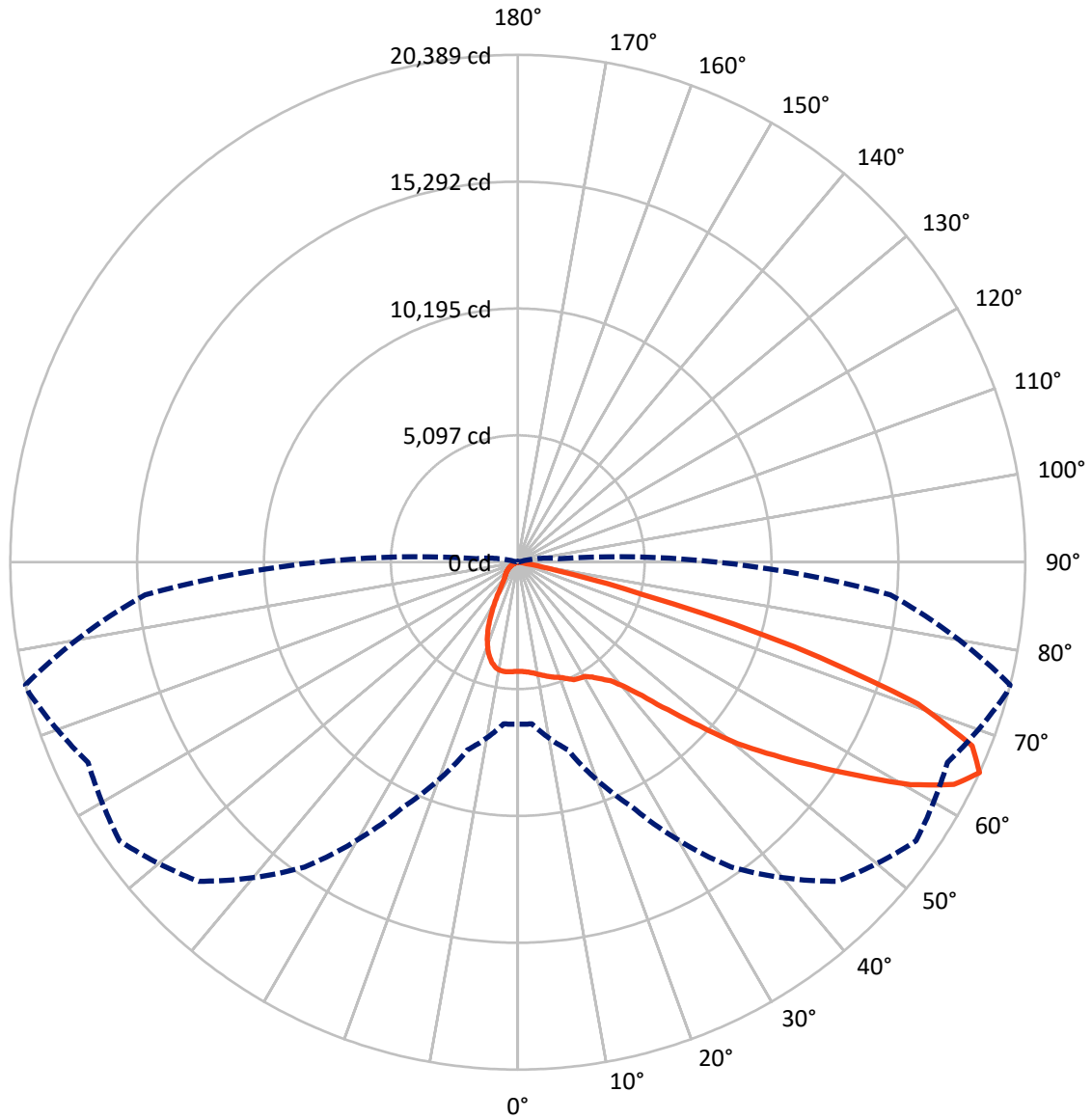
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.3 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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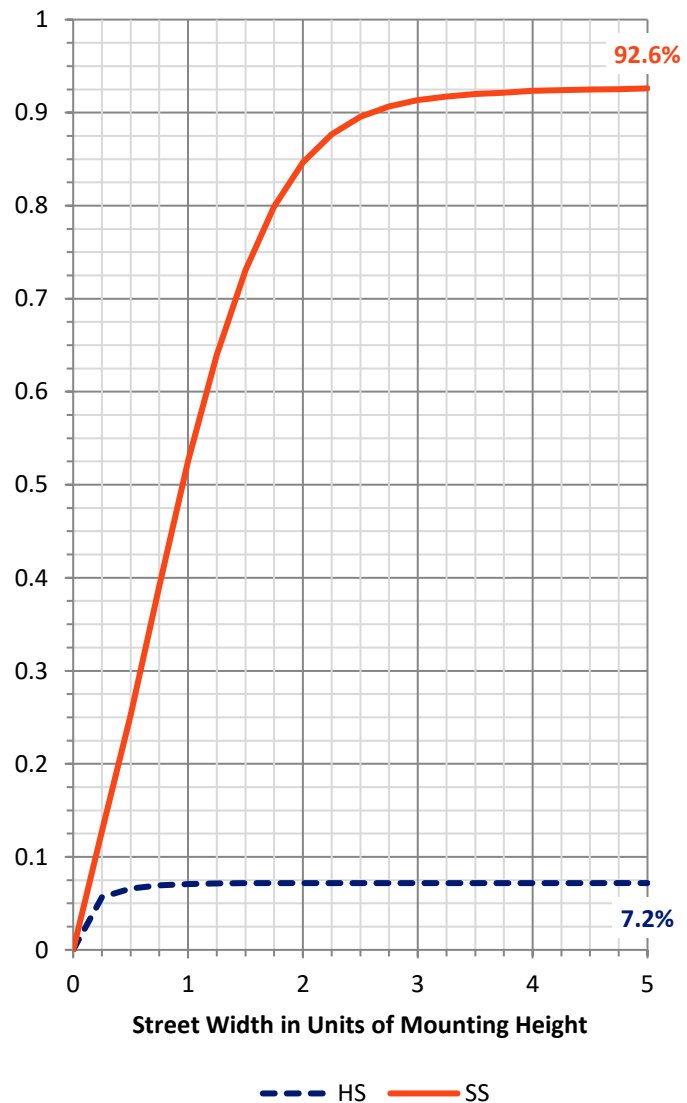
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1730.4	0.0	1730.4
	% Fixture	7.2	0.0	7.2
Street Side	Lumens	22229.6	0.0	22229.6
	% Fixture	92.8	0.0	92.8
Total	Lumens	23960.0	0.0	23960.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	361.1	1.5
10°-20°	803.9	3.4
20°-30°	1295.5	5.4
30°-40°	2252.5	9.4
40°-50°	3722.1	15.5
50°-60°	5749.9	24.0
60°-70°	7021.4	29.3
70°-80°	2664.8	11.1
80°-90°	88.9	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°	23960.0	100.0
0°-180°	23960.0	100.0



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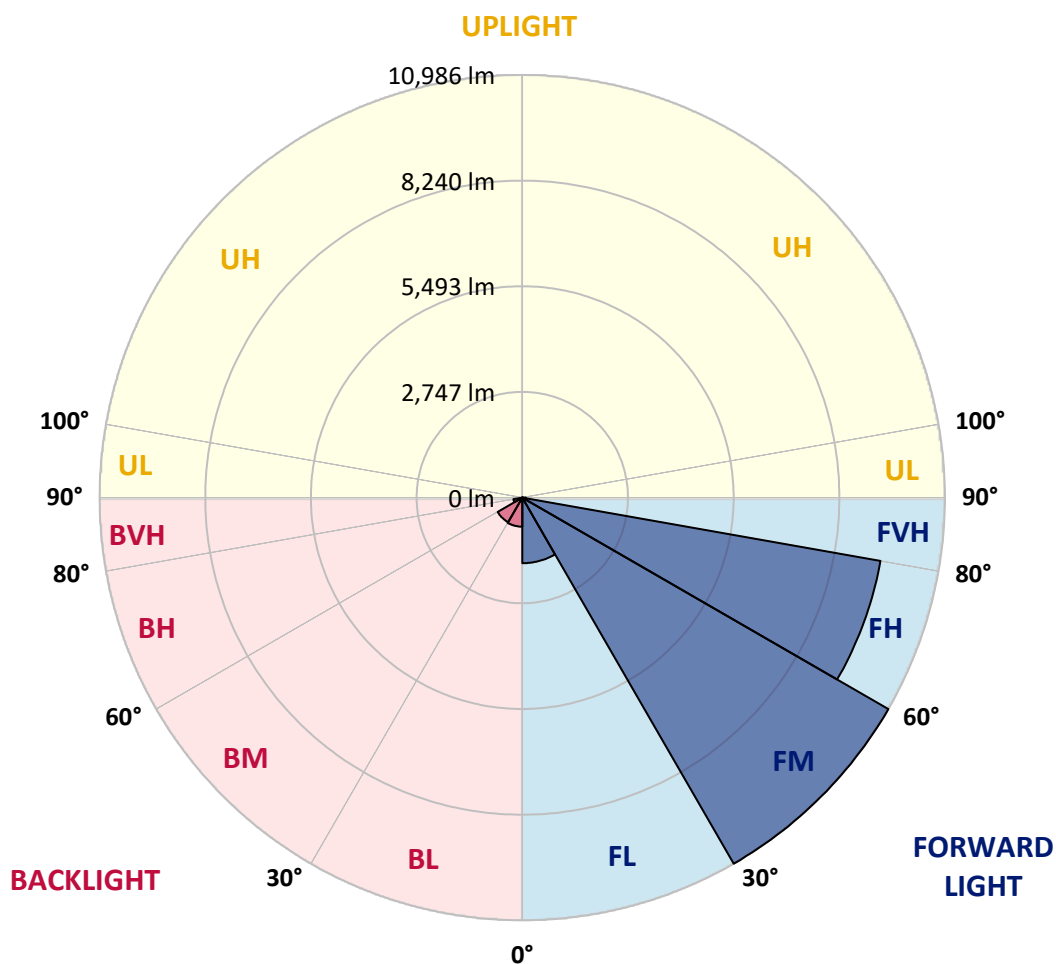
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1704.5	7.1			
FM (30°-60°)	10986.0	45.9			
FH (60°-80°)	9451.4	39.4			G4/12000
FVH (80°-90°)	87.7	0.4			G1/100
BL (0°-30°)	756.0	3.2	B2/1000		
BM (30°-60°)	738.4	3.1	B1/1000		
BH (60°-80°)	234.8	1.0	B1/500		G1/500
BVH (80°-90°)	1.2	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°	4383.0	4383.0	4383.0	4383.0	4383.0	4383.0	4383.0	4383.0	4383.0	4383.0	4383.0
2.5°	4188.5	4190.2	4200.4	4225.7	4264.6	4296.8	4323.8	4367.8	4398.3	4401.7	4411.8
5°	3899.2	3878.9	3899.2	3965.2	4024.4	4114.1	4224.0	4334.0	4432.1	4438.9	4486.2
7.5°	3574.4	3591.4	3623.5	3691.2	3802.8	3939.8	4098.9	4295.1	4481.2	4498.1	4591.1
10°	3244.6	3281.8	3334.2	3437.4	3593.1	3770.7	3987.2	4268.0	4559.0	4582.7	4743.4
12.5°	2940.1	2957.0	3021.3	3160.0	3352.8	3603.2	3902.6	4252.8	4645.3	4674.0	4905.8
15°	2706.6	2728.6	2784.4	2909.6	3124.5	3445.9	3833.3	4247.7	4729.8	4770.4	5068.2
17.5°	2662.6	2676.2	2699.9	2784.4	2972.2	3320.7	3770.7	4246.0	4811.0	4860.1	5218.7
20°	2843.7	2831.8	2808.1	2799.7	2902.9	3224.3	3725.0	4259.6	4888.9	4944.7	5377.7
22.5°	3297.0	3312.2	3173.5	3009.4	2975.6	3209.0	3718.2	4323.8	5012.3	5078.3	5555.4
25°	4259.6	4142.8	3926.3	3533.8	3237.8	3302.1	3794.4	4476.1	5156.1	5228.9	5716.1
27.5°	5323.6	5288.1	4951.4	4305.2	3753.8	3498.3	3929.7	4592.8	5203.5	5277.9	5807.4
30°	6369.0	6411.3	6025.6	5311.8	4503.2	3862.0	4056.6	4636.8	5245.8	5323.6	5924.1
32.5°	7338.4	7389.1	7050.8	6343.7	5386.2	4491.3	4274.8	4807.7	5423.4	5502.9	6118.7
35°	8101.3	8108.0	7852.6	7289.3	6350.4	5255.9	4746.8	5107.1	5663.6	5756.7	6325.1
37.5°	8801.6	8791.5	8492.1	8006.5	7154.0	6015.5	5340.5	5452.2	5937.7	6034.1	6622.8
40°	9321.0	9327.7	9231.3	8774.6	7903.4	6717.5	5810.8	5775.3	6397.8	6548.4	7055.8
42.5°	9667.7	9730.3	9777.7	9545.9	8845.6	7581.9	6533.1	6467.2	7196.3	7321.4	7668.2
45°	9948.6	10060.2	10297.0	10285.2	9750.6	8642.6	7524.4	7389.1	8328.0	8461.6	8448.1
47.5°	10153.2	10266.6	10659.0	10895.9	10601.5	9671.1	8771.2	8654.4	9679.6	9825.1	9309.1
50°	10258.1	10393.5	10894.2	11352.6	11266.3	10662.4	10192.2	10198.9	11312.0	11452.4	10307.2
52.5°	10012.8	10188.8	11019.4	11844.9	12012.4	11611.4	11523.5	11746.8	12765.1	12885.2	11208.8
55°	9229.6	9451.2	10848.5	12264.4	12876.8	12731.3	13035.8	13375.8	14353.6	14431.4	12134.2
57.5°	8734.0	8969.1	10344.4	12621.4	13915.5	14138.8	14620.9	14869.5	15992.8	16190.7	13196.5
60°	8316.1	8500.5	9929.9	12697.5	14971.0	15860.9	16329.4	16586.6	18016.0	18144.6	14365.4
62.5°	7620.9	7832.3	9229.6	12166.3	15502.2	17239.5	18210.5	18095.5	19580.8	19670.4	15082.7
65°	6502.7	6521.3	7808.6	10831.6	14954.1	18134.4	19531.7	19049.6	20328.5	20389.4	15026.9
67.5°	4853.3	5032.6	6007.0	8514.0	12631.5	17369.8	19959.7	19075.0	19856.5	19687.3	13834.3
70°	3126.2	3263.2	4071.8	5903.8	9107.8	14495.7	18540.4	17767.3	17427.3	17051.8	11323.9
72.5°	1443.0	1618.9	2419.1	3373.1	5401.4	10325.8	15050.6	14434.8	12543.5	11616.5	7197.9
75°	629.3	673.3	1194.3	1779.6	2532.4	5460.6	9923.2	8960.6	5665.3	5174.7	2880.9
77.5°	384.0	412.8	625.9	954.1	994.7	2080.7	5345.6	3909.4	1750.9	1544.5	781.5
80°	260.5	292.7	455.1	499.0	340.0	580.2	2006.3	1043.7	353.6	338.3	167.5
82.5°	126.9	160.7	336.6	279.1	147.2	186.1	583.6	223.3	103.2	96.4	59.2
85°	18.6	32.1	189.5	182.7	66.0	44.0	103.2	55.8	35.5	33.8	27.1
87.5°	0.0	0.0	64.3	28.8	6.8	6.8	11.8	11.8	13.5	11.8	13.5
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°	4383.0	4383.0	4383.0	4383.0	4383.0	4383.0	4383.0	4383.0	4383.0	4383.0	4383.0
2.5°	4416.9	4425.3	4393.2	4347.5	4298.5	4249.4	4180.1	4117.5	4080.2	4102.2	4048.1
5°	4496.4	4489.6	4405.0	4266.3	4081.9	3860.3	3640.4	3452.6	3391.7	3300.4	3290.2
7.5°	4606.3	4587.7	4408.4	4090.4	3674.2	3258.1	2852.1	2583.1	2429.2	2298.9	2302.3
10°	4760.3	4706.2	4369.5	3780.8	3095.7	2468.1	1950.5	1595.2	1441.3	1392.2	1353.3
12.5°	4919.3	4814.4	4261.3	3363.0	2410.6	1686.6	1185.8	969.3	874.6	844.1	840.7
15°	5061.4	4895.6	4071.8	2860.6	1752.5	1077.6	808.6	737.6	725.7	727.4	725.7
17.5°	5201.8	4959.9	3809.6	2327.7	1190.9	773.1	695.3	678.3	683.4	690.2	688.5
20°	5318.5	4973.4	3474.6	1776.2	842.4	678.3	653.0	649.6	654.7	659.7	659.7
22.5°	5445.4	4983.6	3077.1	1229.8	688.5	631.0	617.4	617.4	624.2	631.0	632.7
25°	5540.1	4927.8	2601.7	883.0	607.3	585.3	578.5	580.2	587.0	590.4	588.7
27.5°	5555.4	4770.4	2097.6	676.7	551.5	529.5	522.7	529.5	521.0	526.1	522.7
30°	5568.9	4570.8	1586.8	570.1	500.7	466.9	456.7	446.6	439.8	431.4	429.7
32.5°	5611.2	4335.7	1158.8	512.6	453.4	416.1	392.5	363.7	341.7	334.9	333.3
35°	5629.8	4053.2	850.9	466.9	411.1	370.5	328.2	287.6	255.4	243.6	252.1
37.5°	5700.8	3779.1	659.7	433.1	373.9	323.1	269.0	218.2	187.8	181.0	184.4
40°	5846.3	3481.4	553.2	404.3	341.7	279.1	213.1	164.1	143.8	137.0	135.3
42.5°	6079.8	3185.4	492.3	377.2	309.6	235.1	167.5	128.6	111.6	106.6	106.6
45°	6364.0	2901.2	450.0	348.5	275.7	189.5	131.9	103.2	93.0	89.7	89.7
47.5°	6737.8	2652.5	414.5	319.7	238.5	150.6	106.6	89.7	82.9	84.6	86.3
50°	7116.7	2468.1	375.5	287.6	196.2	123.5	91.3	79.5	77.8	79.5	79.5
52.5°	7402.6	2359.8	323.1	243.6	153.9	103.2	81.2	74.4	72.7	69.4	69.4
55°	7788.3	2336.2	257.1	197.9	121.8	86.3	72.7	67.7	62.6	59.2	57.5
57.5°	8284.0	2363.2	197.9	153.9	94.7	71.0	64.3	55.8	49.1	42.3	42.3
60°	8591.9	2302.3	153.9	118.4	69.4	57.5	49.1	40.6	32.1	27.1	25.4
62.5°	8493.7	2045.2	121.8	88.0	49.1	42.3	32.1	27.1	18.6	13.5	11.8
65°	7987.9	1651.0	98.1	60.9	35.5	25.4	16.9	16.9	8.5	1.7	0.0
67.5°	6991.6	1223.1	77.8	40.6	20.3	11.8	8.5	5.1	0.0	0.0	0.0
70°	5690.7	883.0	60.9	25.4	11.8	8.5	3.4	1.7	0.0	0.0	0.0
72.5°	3613.4	505.8	47.4	15.2	8.5	3.4	0.0	0.0	0.0	0.0	0.0
75°	1397.3	197.9	32.1	10.1	3.4	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	395.8	93.0	18.6	5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	103.2	40.6	10.1	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	49.1	16.9	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	28.8	6.8	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	13.5	1.7	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)