

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: P299995

Luminaire Tested: **GLNA-AF-05-LED-E1-SL3-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299995
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194479)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-05-LED-E1-SL3-HSS
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23087.5 lumens
Efficiency: N/A
Efficacy: 82.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B2 - U0 - G4

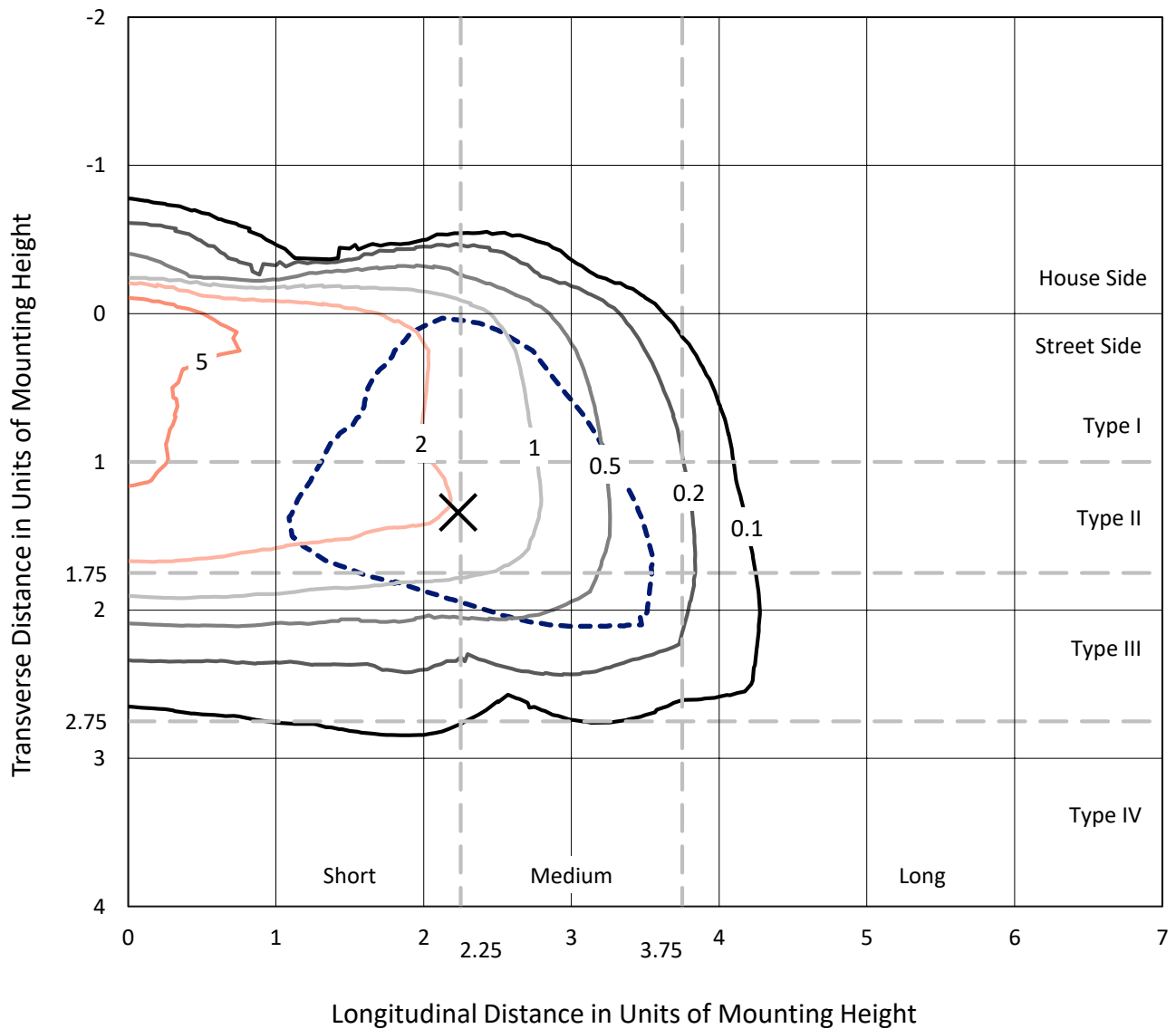
Input Watts (W): 279
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

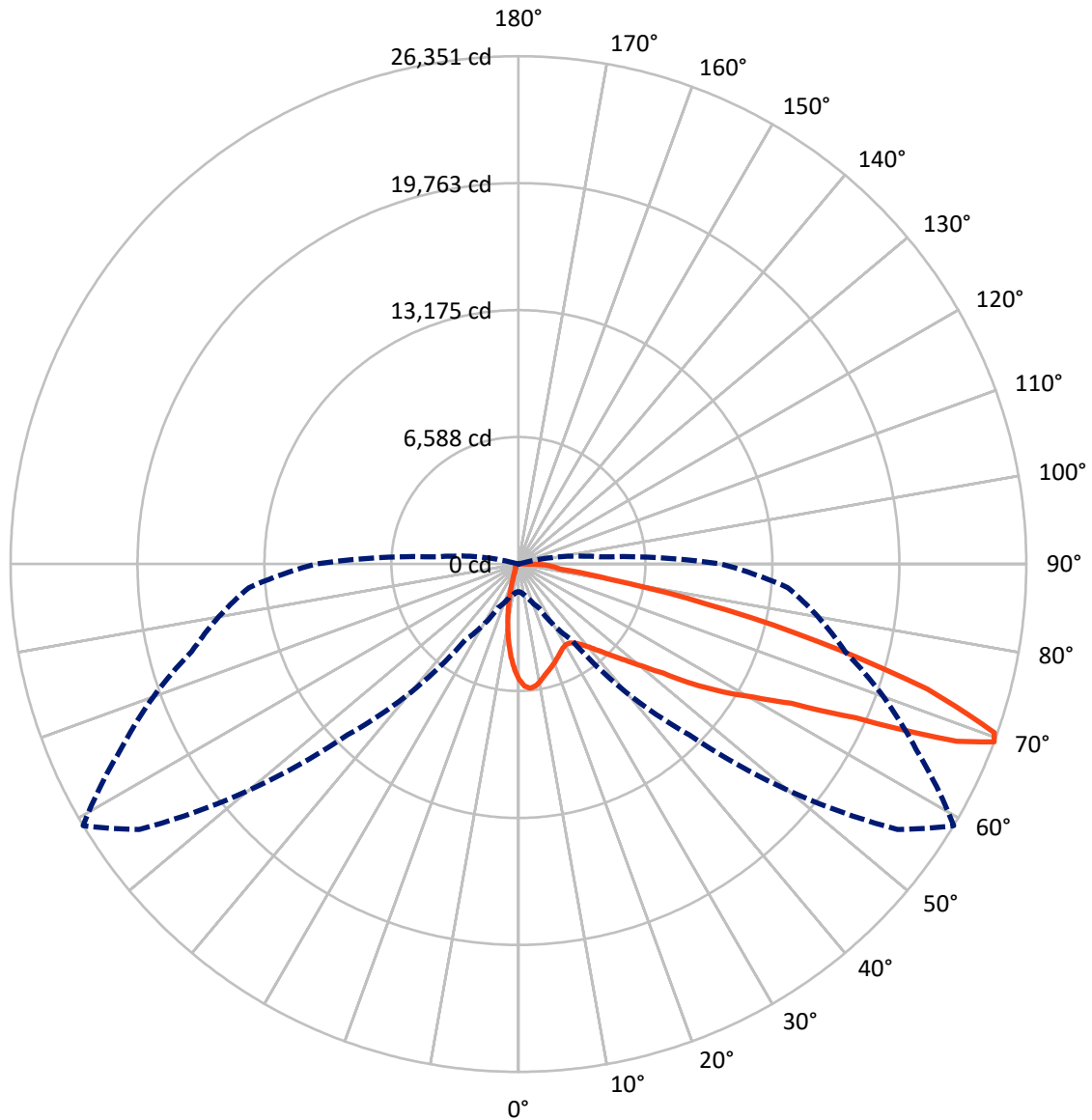
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.7 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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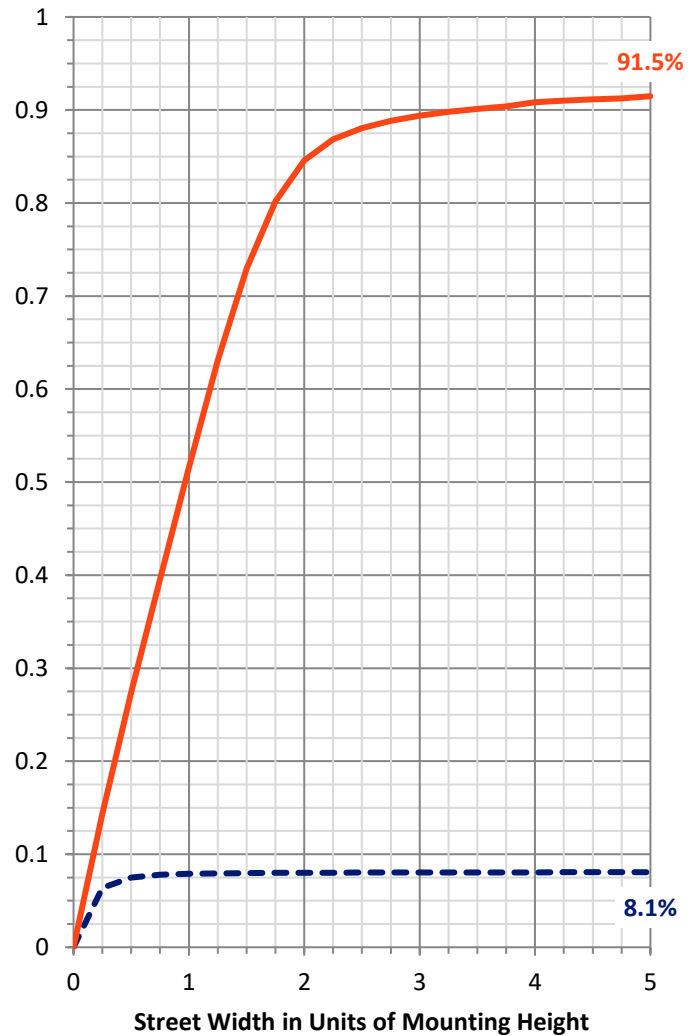
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1880.1	0.0	1880.1
	% Fixture	8.1	0.0	8.1
Street Side	Lumens	21207.3	0.0	21207.3
	% Fixture	91.9	0.0	91.9
Total	Lumens	23087.5	0.0	23087.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	487.8	2.1
10°-20°	1007.9	4.4
20°-30°	1356.2	5.9
30°-40°	1969.2	8.5
40°-50°	3278.8	14.2
50°-60°	5114.9	22.2
60°-70°	6329.3	27.4
70°-80°	3207.6	13.9
80°-90°	335.6	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°	23087.5	100.0
0°-180°	23087.5	100.0



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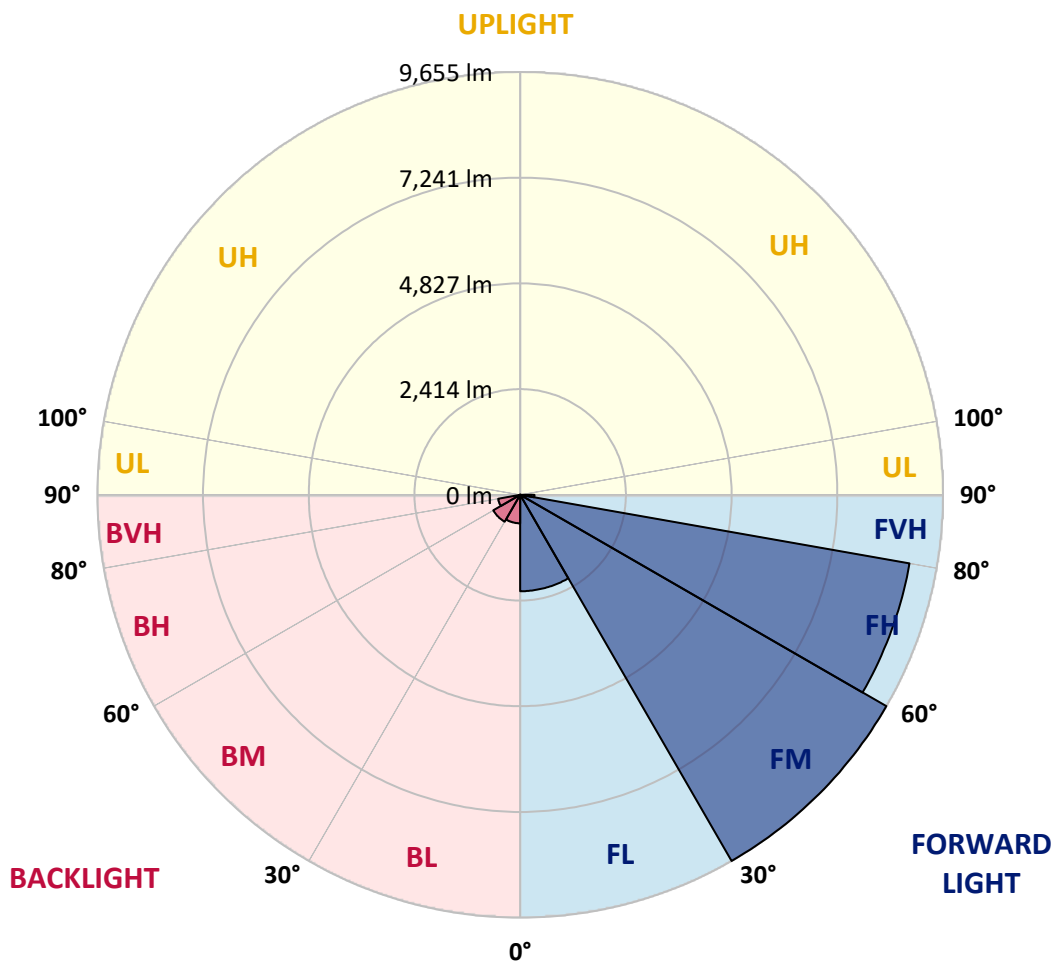
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2201.1	9.5			
FM	(30°-60°)	9654.5	41.8			
FH	(60°-80°)	9026.4	39.1			G4/12000
FVH	(80°-90°)	325.3	1.4			G3/500
BL	(0°-30°)	650.8	2.8	B2/1000		
BM	(30°-60°)	708.4	3.1	B1/1000		
BH	(60°-80°)	510.6	2.2	B2/1000		G2/1000
BVH	(80°-90°)	10.3	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 Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	6009.2	6009.2	6009.2	6009.2	6009.2	6009.2	6009.2	6009.2	6009.2	6009.2	6009.2
2.5°	6586.3	6583.9	6555.1	6542.0	6518.3	6468.9	6391.8	6351.5	6286.3	6172.5	6019.9
5°	6526.2	6557.9	6574.5	6576.0	6593.0	6574.5	6505.3	6471.7	6381.6	6198.6	5924.6
7.5°	6119.1	6130.6	6179.2	6220.7	6301.7	6378.8	6403.7	6389.1	6335.7	6140.1	5775.6
10°	5683.1	5694.6	5752.3	5806.9	5916.7	6035.3	6160.6	6187.1	6209.2	6056.3	5632.1
12.5°	5306.8	5318.7	5377.6	5449.1	5577.2	5723.5	5917.9	5961.0	6059.0	5976.8	5517.1
15°	4983.1	4988.3	5046.0	5134.5	5287.5	5475.2	5696.2	5765.3	5915.6	5920.7	5416.7
17.5°	4707.6	4720.7	4756.2	4840.8	5008.0	5240.4	5497.8	5597.0	5772.9	5873.7	5318.7
20°	4539.2	4552.3	4551.1	4598.1	4748.3	4996.2	5299.3	5417.9	5632.1	5825.4	5231.3
22.5°	4506.8	4506.8	4472.8	4466.1	4555.0	4762.6	5093.0	5237.7	5505.3	5804.5	5170.1
25°	4623.0	4617.5	4532.9	4463.7	4467.7	4591.4	4893.0	5065.3	5398.5	5818.7	5137.3
27.5°	4868.5	4861.8	4754.7	4623.0	4517.1	4515.9	4741.6	4927.0	5313.6	5886.7	5150.3
30°	5207.6	5205.3	5089.0	4923.0	4731.3	4555.0	4689.4	4857.8	5258.6	6009.2	5180.4
32.5°	5578.4	5574.4	5487.1	5312.4	5069.3	4731.3	4744.4	4885.5	5274.4	6172.5	5253.5
35°	5971.7	5965.0	5927.0	5774.4	5506.8	5056.2	4924.6	5034.1	5373.6	6416.7	5397.0
37.5°	6397.0	6403.7	6431.0	6284.7	6004.1	5512.0	5226.2	5300.5	5573.2	6748.4	5630.6
40°	7025.1	7023.9	7033.0	6840.9	6570.9	6069.3	5647.6	5671.3	5907.6	7188.3	5985.9
42.5°	8164.6	8085.2	7843.7	7451.9	7180.4	6706.5	6179.2	6154.3	6316.3	7732.6	6483.2
45°	9696.3	9526.3	8899.8	8149.2	7801.8	7424.7	6833.0	6753.5	6856.7	8386.8	7097.0
47.5°	11013.3	10837.0	9950.8	8874.9	8461.1	8106.1	7599.4	7455.9	7489.9	9119.2	7874.9
50°	11461.1	11375.0	10601.0	9506.9	9099.4	8963.8	8488.7	8313.6	8265.4	9966.2	8776.9
52.5°	11305.8	11299.5	10783.6	9916.8	9684.4	9851.6	9607.3	9405.0	9227.5	10859.5	9694.7
55°	11056.4	11089.2	10858.0	10275.7	10267.8	10662.3	11137.4	10969.0	10454.8	11829.5	10486.0
57.5°	10368.6	10508.1	10816.5	10954.8	11275.8	11679.3	12411.7	12511.0	11902.6	12572.2	11142.5
60°	8412.8	8719.6	9727.5	11052.4	12575.0	13580.2	13949.7	14034.3	13090.4	13189.6	12029.1
62.5°	5971.7	6284.7	7563.0	9804.6	12594.4	16077.4	16240.7	15907.9	14398.7	14105.1	13558.0
65°	3169.6	3411.5	4455.8	7077.2	10919.6	16657.3	20247.5	19255.4	16706.7	15905.1	15533.2
67.5°	1621.4	1694.5	2109.9	3463.7	7506.9	14795.6	23838.9	24537.3	20684.7	17691.3	15437.9
69°	1434.8	1477.9	1753.4	2504.0	4806.8	12531.9	24014.0	26350.8	22767.3	17542.3	14029.2
70°	1389.0	1426.9	1677.5	2266.5	3757.4	10509.3	23344.0	26191.5	23299.7	16975.9	12977.0
72.5°	1179.1	1211.5	1493.7	2002.8	3053.8	5216.7	18962.9	22194.2	20908.0	14141.4	9393.1
75°	788.6	895.7	1433.6	1877.5	2840.8	2963.7	12501.9	16038.3	14898.8	9538.2	4893.0
77.5°	189.3	203.6	404.8	1493.7	2598.1	2608.4	6429.8	9970.2	8132.2	3399.7	1156.5
80°	102.0	98.0	113.4	296.4	2419.0	2447.9	2894.5	4839.6	2903.6	564.0	381.0
82.5°	71.9	68.0	73.1	124.1	761.3	2229.7	2094.1	2190.6	1203.6	216.6	171.2
85°	26.1	24.9	40.3	112.3	238.7	1281.8	2151.4	1806.8	975.1	99.2	125.3
87.5°	9.1	7.9	15.8	61.3	73.1	545.9	1327.7	1365.6	383.8	60.1	58.9
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°	6009.2	6009.2	6009.2	6009.2	6009.2	6009.2	6009.2	6009.2	6009.2	6009.2	6009.2
2.5°	5955.9	5874.8	5726.2	5573.2	5432.1	5262.6	5177.6	5094.2	5059.0	5046.0	4984.7
5°	5783.5	5646.4	5330.6	5013.2	4720.7	4410.0	4205.2	4040.8	3944.0	3896.9	3822.6
7.5°	5563.0	5338.5	4859.0	4369.7	3913.9	3464.9	3132.1	2876.0	2699.7	2615.1	2538.0
10°	5348.7	5049.9	4368.5	3701.3	3082.3	2487.0	2027.3	1694.5	1481.9	1383.8	1321.4
12.5°	5157.0	4769.3	3894.6	3049.9	2272.8	1575.9	1108.3	843.5	711.5	665.6	643.5
15°	4985.9	4510.8	3446.7	2430.9	1539.2	900.8	605.9	515.8	494.9	494.9	492.1
17.5°	4823.8	4257.4	3014.3	1849.8	966.0	551.0	460.9	449.0	449.0	454.2	454.2
20°	4668.5	4015.9	2596.5	1327.7	608.3	437.2	416.6	413.8	416.6	422.9	422.9
22.5°	4535.3	3796.5	2206.4	911.1	451.8	394.1	383.8	379.9	381.0	385.0	387.8
25°	4436.1	3611.1	1838.4	617.4	388.9	358.9	347.4	340.7	335.6	335.6	338.0
27.5°	4373.6	3454.6	1481.9	449.0	349.8	326.5	307.9	297.6	285.8	279.5	281.8
30°	4327.8	3305.6	1147.5	366.8	313.4	289.7	266.4	249.4	232.4	224.5	227.3
32.5°	4310.8	3185.4	857.7	323.7	280.6	254.6	225.7	203.6	185.4	178.7	180.2
35°	4356.6	3090.2	628.1	292.5	254.6	221.7	189.3	164.4	150.2	146.2	147.4
37.5°	4476.8	3039.2	470.0	266.4	231.2	194.5	158.1	134.4	125.3	125.3	126.5
40°	4703.7	3038.0	377.5	248.2	210.3	168.4	130.4	113.4	108.3	111.1	112.3
42.5°	5035.3	3107.2	328.9	231.2	192.1	143.5	108.3	96.4	95.3	98.0	99.2
45°	5488.3	3233.7	302.8	216.6	172.3	120.2	91.3	83.4	83.4	87.4	88.9
47.5°	6043.2	3419.1	280.6	202.4	152.6	100.4	78.3	73.1	74.3	78.3	79.4
50°	6711.6	3653.0	258.5	186.6	138.3	83.4	68.0	64.0	65.2	70.4	71.9
52.5°	7472.9	3967.7	240.3	172.3	120.2	69.2	57.3	54.9	57.3	62.8	64.0
55°	8125.5	4249.5	218.2	160.5	96.4	57.3	47.0	47.0	49.8	56.1	57.3
57.5°	8753.6	4544.4	198.4	138.3	75.9	45.9	39.1	40.3	44.3	51.0	52.2
60°	9675.3	5044.4	175.1	116.2	57.3	36.4	32.8	34.0	39.1	45.9	47.0
62.5°	11240.6	5805.7	151.4	96.4	44.3	28.9	26.1	28.9	35.2	43.1	44.3
65°	12653.3	6115.2	124.1	81.0	34.0	22.1	22.1	26.1	34.0	41.9	43.1
67.5°	11865.9	5147.5	96.4	64.0	26.1	17.0	18.2	24.9	32.8	41.9	43.1
69°	10493.9	4209.2	82.2	51.0	22.1	15.8	17.0	24.9	32.8	40.3	41.9
70°	9424.7	3553.8	73.1	43.1	19.8	15.8	17.0	23.3	32.8	40.3	41.9
72.5°	6312.4	1919.0	58.9	31.2	18.2	14.2	14.2	23.3	31.2	39.1	40.3
75°	2712.7	530.1	47.0	22.1	15.8	13.0	13.0	22.1	30.0	37.9	40.3
77.5°	496.1	134.4	37.9	19.8	15.8	13.0	11.9	20.9	28.9	36.4	37.9
80°	197.2	66.4	30.0	17.0	14.2	11.9	10.3	19.8	27.3	35.2	36.4
82.5°	119.0	37.9	24.9	15.8	14.2	10.3	9.1	17.0	26.1	34.0	35.2
85°	96.4	26.1	19.8	15.8	13.0	10.3	7.9	15.8	23.3	32.8	34.0
87.5°	47.0	18.2	18.2	14.2	13.0	10.3	7.9	14.2	22.1	31.2	32.8
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)