

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: P299953

Luminaire Tested: **GLNA-AF-04-LED-E1-SL3-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299953
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24288)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-04-LED-E1-SL3-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Medium OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13696.7 lumens
Efficiency: N/A
Efficacy: 106.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B2 - U0 - G3

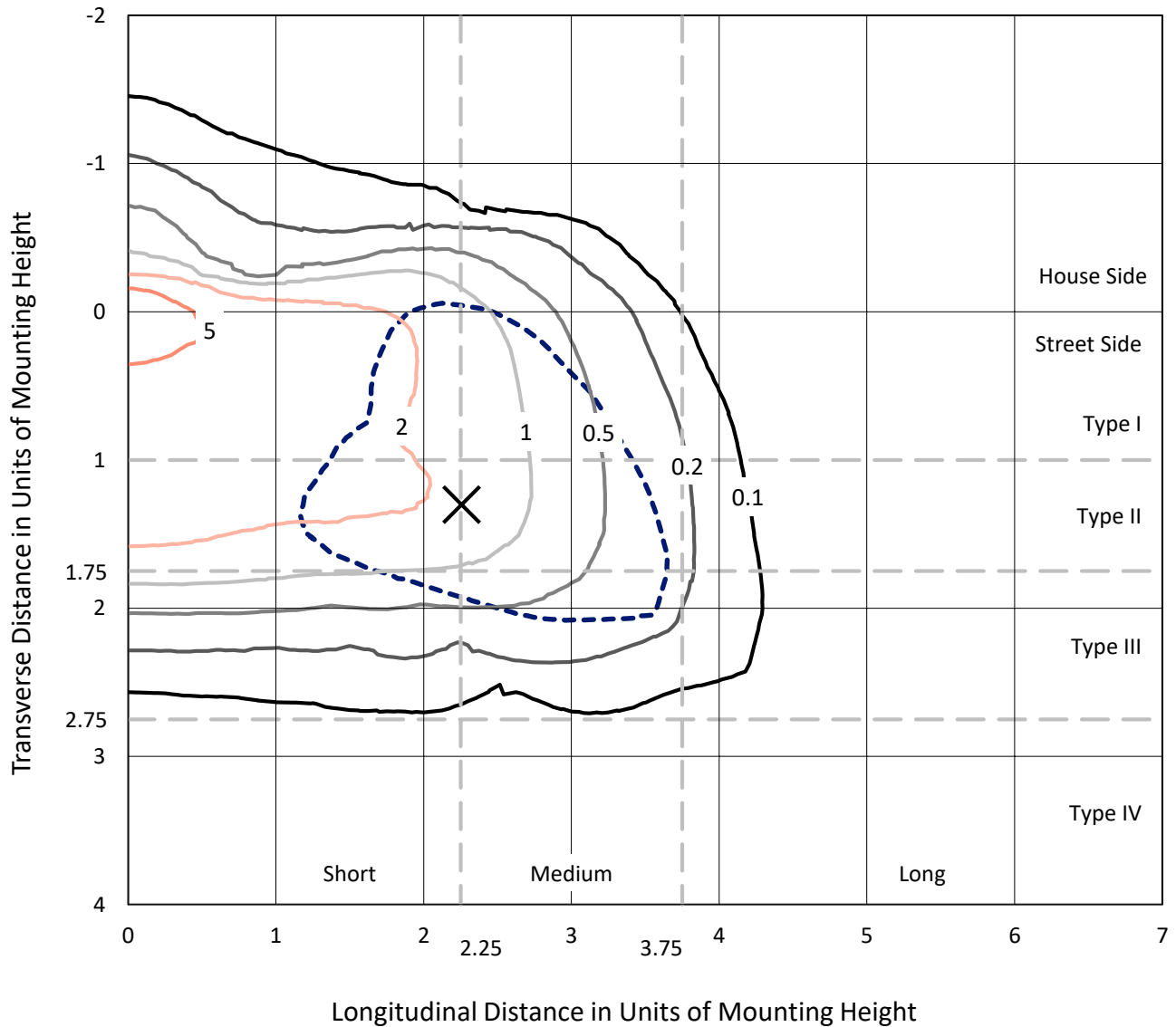
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

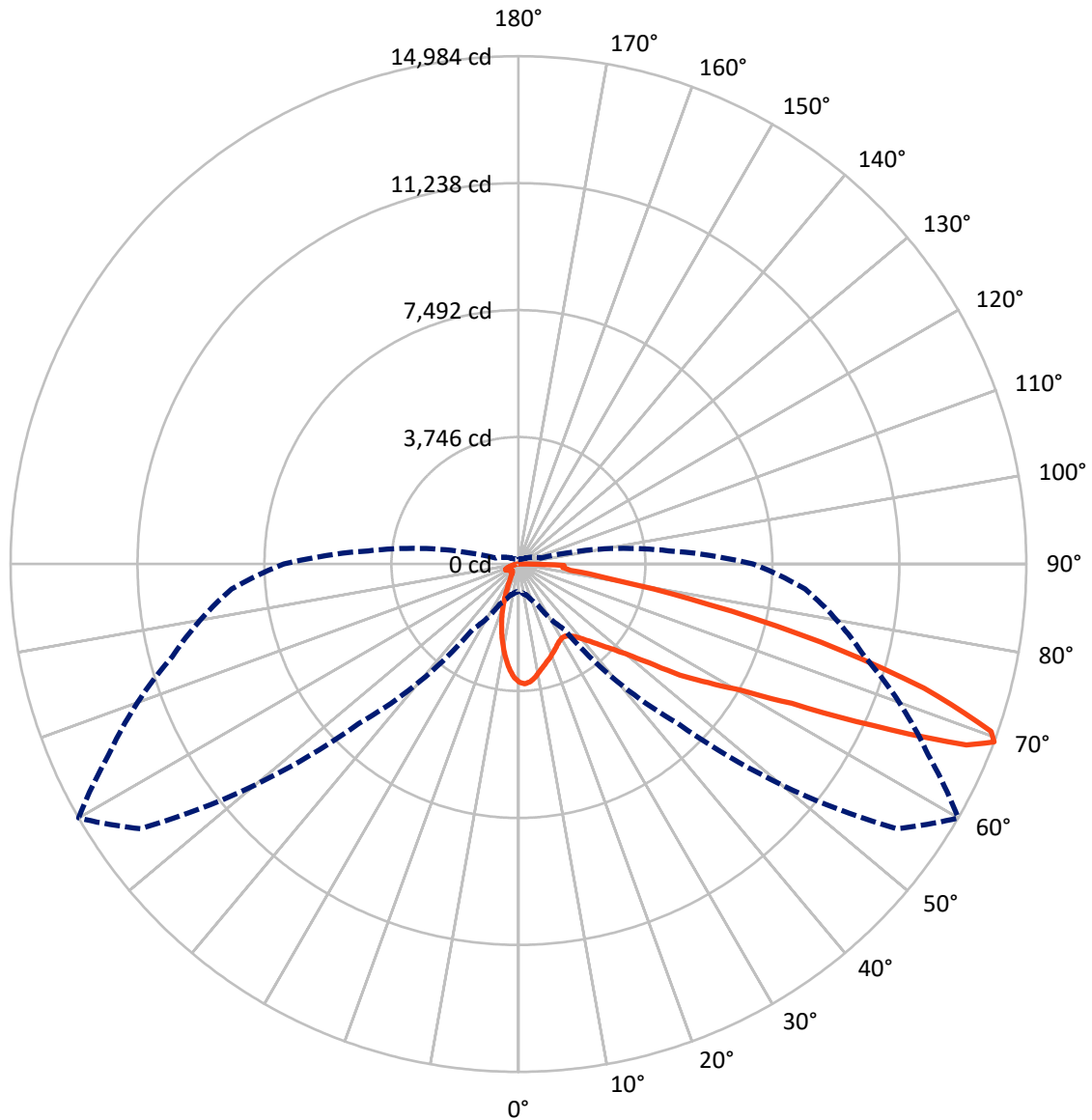
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 8.7 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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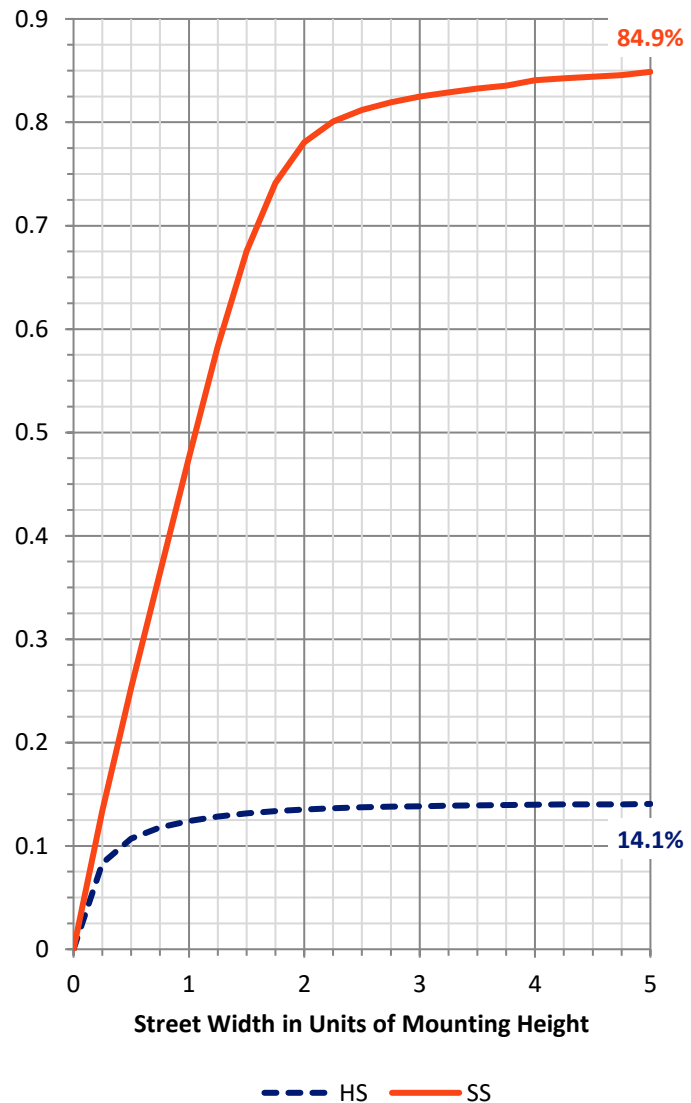
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1948.6	0.0	1948.6
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	11748.1	0.0	11748.1
	% Fixture	85.8	0.0	85.8
Total	Lumens	13696.7	0.0	13696.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	295.1	2.2
10°-20°	628.7	4.6
20°-30°	801.1	5.8
30°-40°	1101.3	8.0
40°-50°	1787.0	13.0
50°-60°	2865.9	20.9
60°-70°	3814.3	27.8
70°-80°	2059.4	15.0
80°-90°	343.6	2.5
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°	13696.7	100.0
0°-180°	13696.7	100.0

Coefficient of Utilization



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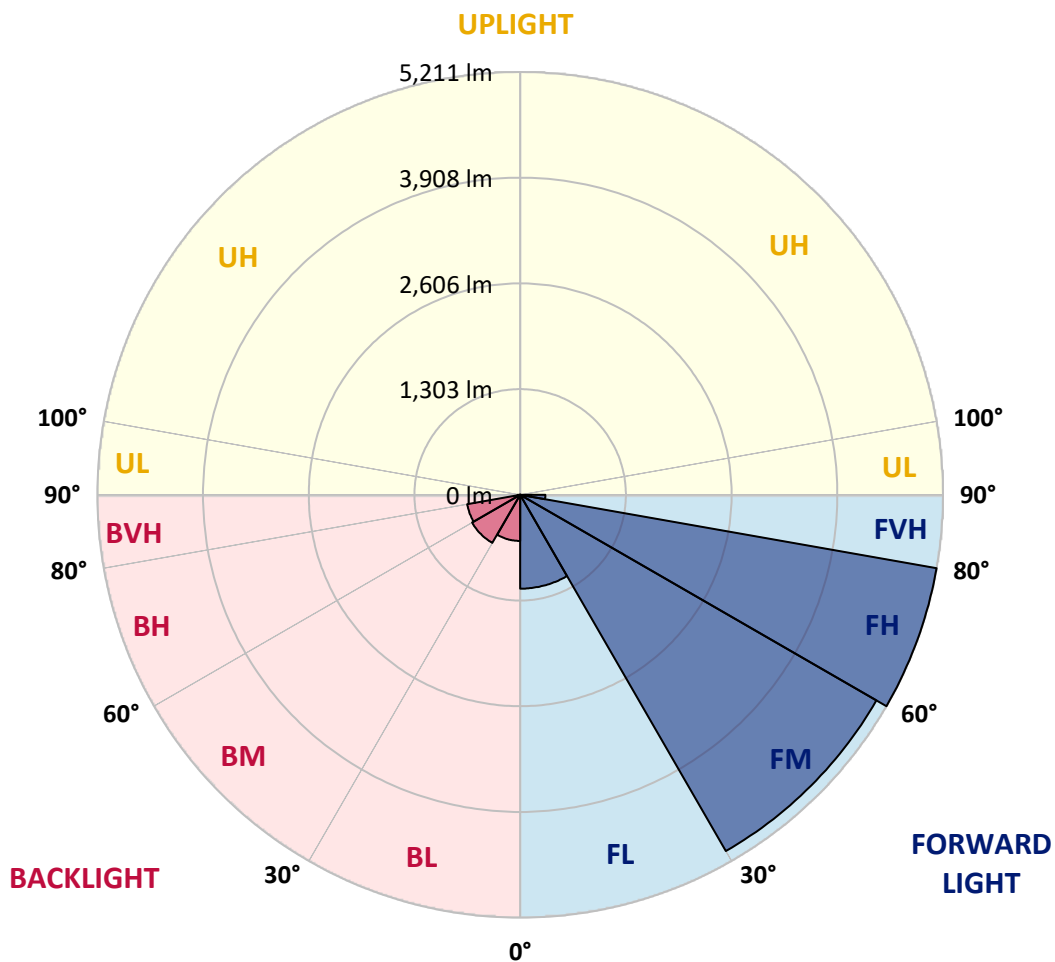
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1156.5	8.4			
FM (30°-60°)	5069.7	37.0			
FH (60°-80°)	5211.3	38.0			G3/7500
FVH (80°-90°)	310.5	2.3			G3/500
BL (0°-30°)	568.5	4.2	B2/1000		
BM (30°-60°)	684.6	5.0	B1/1000		
BH (60°-80°)	662.5	4.8	B2/1000		G2/1000
BVH (80°-90°)	33.1	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	3490.1	3490.1	3490.1	3490.1	3490.1	3490.1	3490.1	3490.1	3490.1	3490.1	3490.1
2.5°	3561.6	3569.5	3566.2	3564.2	3570.2	3560.9	3541.7	3535.8	3526.5	3504.7	3467.6
5°	3427.9	3451.7	3450.4	3468.3	3498.1	3506.0	3497.4	3498.7	3481.5	3454.4	3392.9
7.5°	3197.0	3206.9	3212.2	3251.3	3305.5	3349.2	3386.2	3398.2	3390.2	3367.1	3287.7
10°	2958.8	2966.8	2979.3	3025.0	3093.8	3154.0	3224.1	3264.5	3281.7	3277.7	3189.1
12.5°	2754.4	2762.3	2778.9	2830.5	2912.5	2986.6	3088.5	3138.8	3179.8	3204.3	3109.0
15°	2571.1	2588.3	2604.2	2663.7	2755.7	2853.0	2968.1	3031.6	3095.1	3150.0	3038.2
17.5°	2428.2	2445.4	2454.7	2508.9	2606.8	2725.9	2860.9	2935.7	3015.1	3105.1	2968.1
20°	2345.5	2353.4	2349.5	2379.9	2467.9	2594.3	2754.4	2841.1	2937.0	3062.7	2898.0
22.5°	2322.3	2323.0	2308.4	2305.1	2362.0	2468.6	2640.6	2745.8	2863.6	3034.9	2837.8
25°	2378.6	2376.6	2336.9	2304.5	2310.4	2372.6	2530.8	2653.2	2802.0	3029.0	2791.4
27.5°	2503.6	2509.6	2450.7	2389.8	2329.6	2327.6	2447.4	2576.4	2751.7	3056.1	2771.6
30°	2679.0	2688.9	2626.0	2548.6	2435.5	2342.2	2415.0	2530.8	2720.6	3112.3	2768.3
32.5°	2870.8	2881.4	2833.8	2752.4	2604.2	2432.2	2437.5	2534.7	2719.3	3191.1	2790.8
35°	3075.3	3087.2	3062.7	2993.9	2829.2	2598.2	2523.5	2598.9	2762.3	3311.5	2851.0
37.5°	3303.5	3322.1	3328.7	3263.2	3087.2	2817.2	2664.4	2720.6	2859.6	3478.9	2961.5
40°	3632.4	3658.2	3656.2	3562.2	3382.9	3113.0	2882.1	2896.6	3011.1	3702.5	3138.1
42.5°	4262.3	4267.5	4102.8	3898.4	3708.5	3424.0	3138.8	3126.9	3220.2	3985.7	3398.2
45°	5063.5	5041.7	4675.1	4280.1	4048.5	3781.2	3472.9	3414.7	3485.5	4331.1	3723.7
47.5°	5728.4	5678.2	5215.0	4669.8	4408.5	4169.6	3865.3	3763.4	3802.4	4722.7	4144.5
50°	5959.3	5921.6	5537.9	4994.0	4749.2	4643.4	4348.3	4204.0	4214.6	5189.9	4637.4
52.5°	5909.7	5904.4	5648.4	5207.7	5068.1	5140.9	5032.4	4837.2	4734.0	5708.6	5169.4
55°	5792.6	5803.9	5711.2	5456.5	5432.7	5621.2	5926.3	5782.0	5461.1	6231.9	5719.2
57.5°	5385.7	5414.8	5618.6	5769.5	6019.6	6300.1	6646.1	6605.1	6243.8	6797.6	6372.9
60°	4339.0	4406.5	4953.0	5708.6	6623.6	7501.0	7655.8	7560.5	7051.0	7499.6	7236.3
62.5°	3040.2	3110.3	3760.1	4942.4	6524.4	8857.3	9460.7	9049.8	8210.2	8533.8	8353.8
65°	1627.6	1661.4	2157.6	3429.3	5508.1	9137.2	12098.7	11473.4	10045.6	9808.7	9309.9
67.5°	897.8	916.4	1106.3	1731.5	3527.8	8046.1	13779.2	14251.6	12339.5	10657.6	9135.9
69°	811.8	829.0	953.4	1311.4	2360.7	6652.7	13615.1	14984.0	13345.2	10573.6	8492.7
70°	794.0	809.8	921.7	1208.8	1910.8	5483.6	13065.3	14796.8	13584.7	10272.5	7931.7
72.5°	714.6	731.8	840.3	1085.7	1632.9	2733.9	10349.3	12510.9	12333.5	8906.9	6016.2
75°	666.3	682.1	866.1	1063.2	1563.4	1730.2	6822.8	9220.5	9066.4	6230.6	3244.0
77.5°	285.2	283.8	401.6	899.8	1586.6	1675.3	3666.1	5760.2	5255.4	2663.1	931.6
80°	190.6	187.2	190.6	264.7	1454.9	1684.5	1920.7	2923.8	2208.5	678.8	459.2
82.5°	164.1	161.4	167.4	161.4	511.4	1922.7	1632.9	1554.8	1050.0	385.7	227.6
85°	110.5	105.9	144.2	144.9	241.5	1708.3	1839.3	1313.3	849.5	228.9	112.5
87.5°	52.9	51.6	84.0	102.6	141.6	694.1	2063.6	1345.8	856.8	117.1	53.6
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°	3490.1	3490.1	3490.1	3490.1	3490.1	3490.1	3490.1	3490.1	3490.1	3490.1	3490.1
2.5°	3456.4	3429.3	3402.8	3371.0	3337.9	3300.9	3282.4	3263.8	3259.2	3253.9	3235.4
5°	3361.1	3322.7	3256.6	3183.8	3107.0	3032.3	2975.4	2939.6	2912.5	2898.6	2874.1
7.5°	3238.0	3181.8	3066.0	2940.3	2811.3	2693.5	2591.6	2527.4	2466.6	2438.1	2405.7
10°	3120.9	3036.9	2856.9	2671.7	2486.4	2308.4	2141.1	2022.6	1917.4	1858.5	1816.8
12.5°	3020.4	2905.2	2655.8	2405.0	2151.0	1897.6	1646.8	1449.6	1284.9	1198.2	1153.9
15°	2922.4	2783.5	2464.6	2146.3	1820.2	1475.4	1146.0	922.3	786.0	731.8	713.2
17.5°	2833.8	2655.8	2272.7	1885.7	1478.8	1061.9	770.1	647.1	594.8	576.9	571.0
20°	2737.8	2526.8	2073.6	1613.1	1122.8	742.4	601.4	547.2	526.0	520.7	518.1
22.5°	2645.2	2399.7	1883.0	1321.3	806.5	573.0	516.7	494.2	490.9	495.6	495.6
25°	2566.5	2285.9	1677.2	1016.3	592.2	482.3	462.5	457.2	469.8	487.0	490.3
27.5°	2507.6	2192.7	1458.2	750.3	471.7	419.5	418.8	427.4	458.5	491.6	498.2
30°	2467.2	2104.0	1224.0	541.2	395.7	369.2	379.8	398.3	444.0	490.9	503.5
32.5°	2446.7	2038.5	979.9	418.8	338.8	324.2	342.1	364.6	409.6	453.2	469.8
35°	2462.6	1990.2	749.6	349.3	299.1	287.8	306.3	328.2	354.6	373.2	385.7
37.5°	2522.2	1971.0	565.7	313.0	271.9	261.3	275.9	288.5	299.1	304.4	310.3
40°	2650.5	1991.5	453.2	294.4	256.7	243.5	249.4	254.1	260.7	266.0	268.6
42.5°	2839.7	2053.1	406.2	287.1	248.8	229.6	228.3	230.2	238.9	248.8	250.8
45°	3104.4	2161.6	402.9	291.8	244.8	218.3	212.4	215.0	228.3	243.5	246.1
47.5°	3442.5	2327.0	429.4	305.7	248.1	212.4	202.5	205.8	222.3	242.8	246.1
50°	3852.0	2557.9	473.7	326.2	262.7	213.7	199.2	201.1	218.3	240.8	244.1
52.5°	4335.7	2885.4	522.0	346.0	277.9	222.3	201.8	197.2	213.0	232.9	236.9
55°	4873.6	3305.5	571.7	363.9	285.8	232.9	207.1	191.9	203.1	219.7	223.0
57.5°	5533.9	3893.1	657.7	381.1	291.1	240.2	212.4	186.6	190.6	202.5	205.1
60°	6427.8	4724.1	809.2	409.6	303.0	242.8	211.7	181.9	178.0	184.6	185.9
62.5°	7499.0	5626.5	935.6	445.3	322.9	244.8	207.8	178.6	167.4	167.4	168.7
65°	8134.8	5868.0	865.4	475.1	339.4	242.8	203.1	175.3	159.5	152.2	152.8
67.5°	7595.6	5160.8	741.7	481.0	338.8	233.6	195.8	169.4	151.5	140.3	139.6
69°	6920.0	4452.8	686.1	465.1	322.9	221.6	186.6	162.8	145.6	133.7	133.0
70°	6375.5	4020.8	649.7	447.9	305.7	213.0	179.3	156.8	140.9	129.7	128.4
72.5°	4635.4	2634.6	555.1	385.1	252.1	178.6	154.8	137.6	125.7	119.1	117.8
75°	2316.4	1256.4	450.6	312.3	193.2	142.9	127.0	115.1	109.2	107.8	107.2
77.5°	760.9	575.6	322.2	232.9	143.6	111.8	102.6	94.0	92.6	96.6	95.3
80°	418.2	334.8	204.4	154.2	97.9	82.0	80.7	76.1	78.1	84.7	83.4
82.5°	213.0	174.0	126.4	92.6	66.2	58.9	64.2	61.5	64.2	70.1	69.5
85°	105.2	95.3	80.1	56.2	43.7	37.7	45.7	47.6	49.0	53.6	53.6
87.5°	60.9	56.2	42.3	26.5	21.8	19.8	26.5	25.8	30.4	33.1	32.4
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)