

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: P453011

Luminaire Tested: **GALN-SA4A-730-U-SL3-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453011
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-17)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4A-730-U-SL3-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K, 615mA 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: 13629 lumens
Efficiency: N/A
Efficacy: 112.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G3

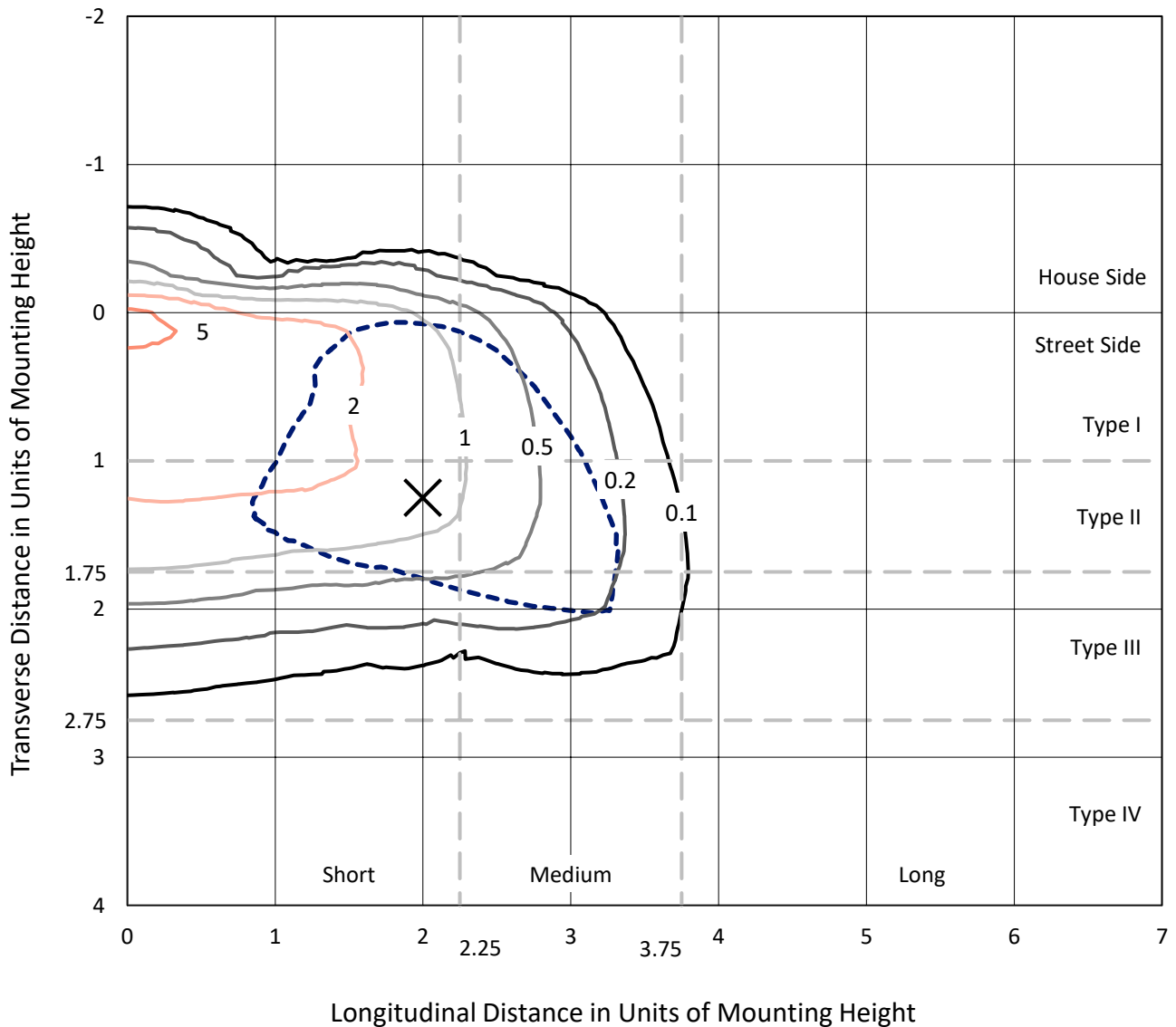
Input Watts (W): 121
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

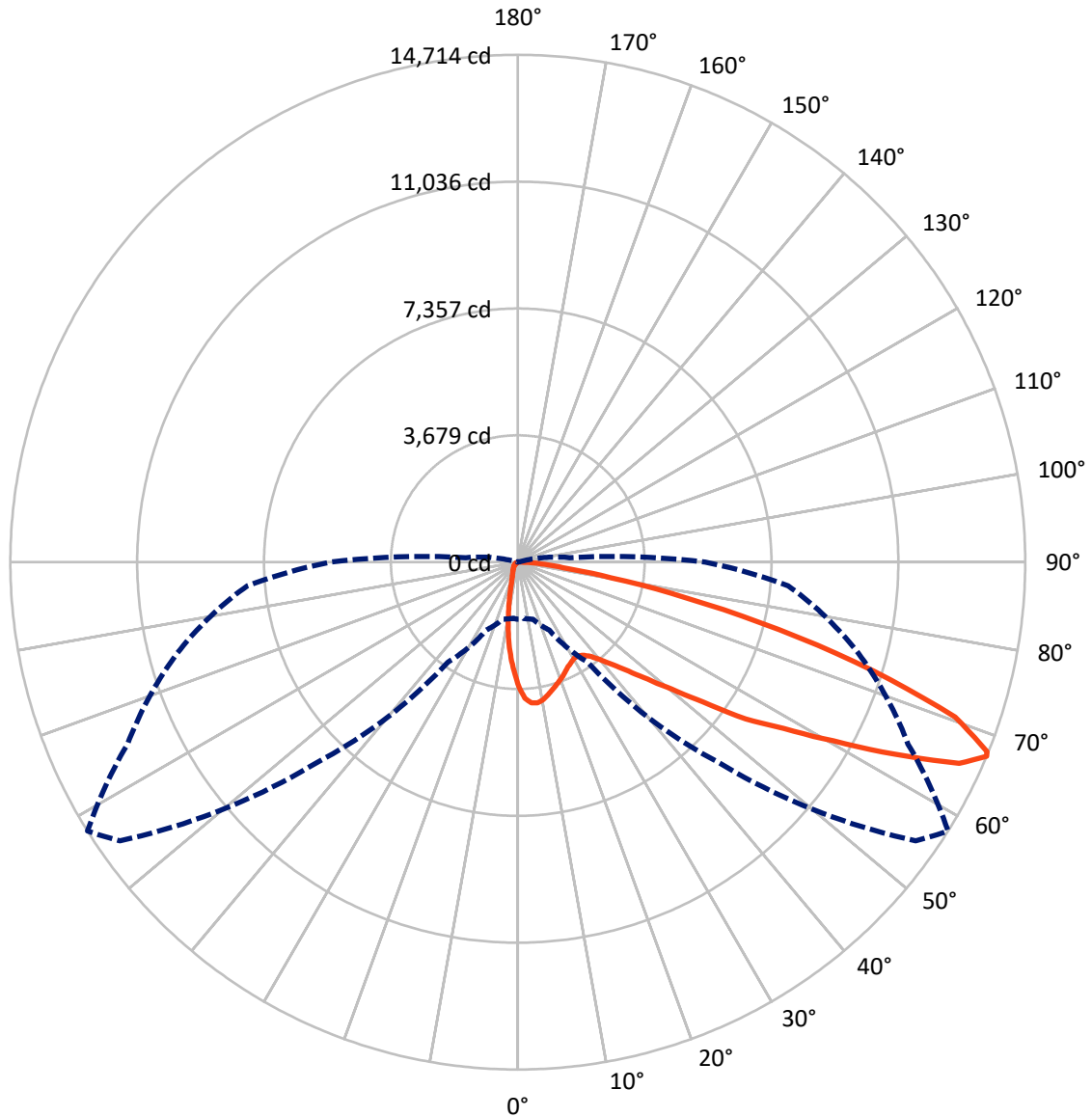
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.4 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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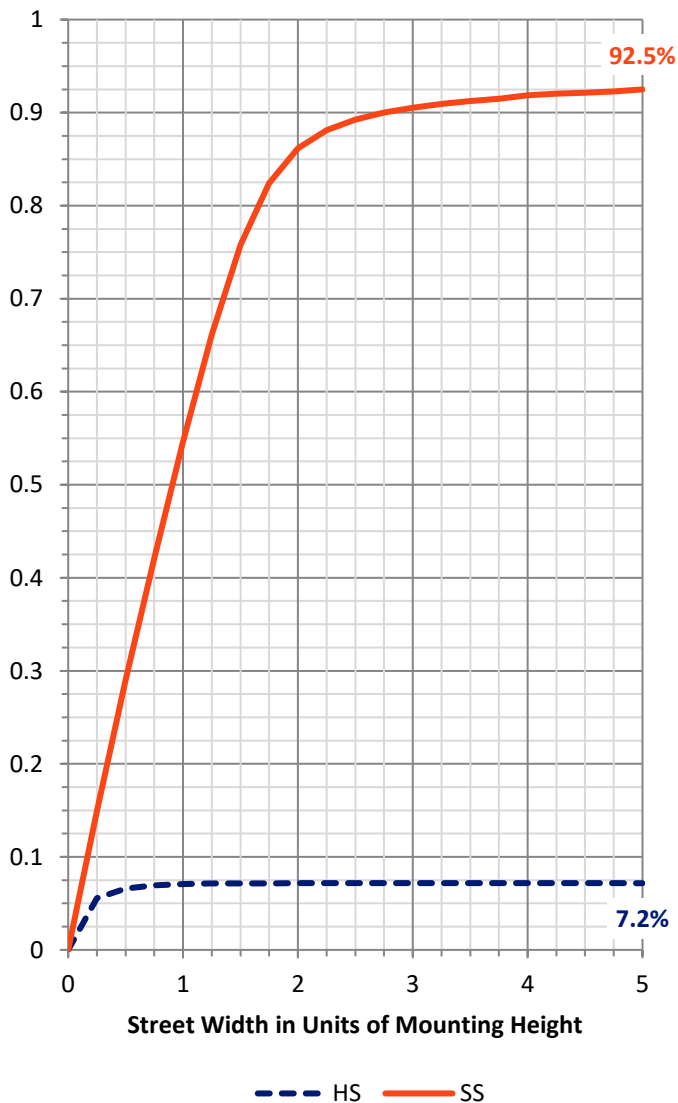
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	983.5	0.0	983.5
	% Fixture	7.2	0.0	7.2
Street Side	Lumens	12645.4	0.0	12645.4
	% Fixture	92.8	0.0	92.8
Total	Lumens	13629.0	0.0	13629.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	293.2	2.2
10°-20°	633.2	4.6
20°-30°	858.0	6.3
30°-40°	1190.0	8.7
40°-50°	1898.0	13.9
50°-60°	3280.8	24.1
60°-70°	3747.7	27.5
70°-80°	1562.4	11.5
80°-90°	165.7	1.2
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°	13629.0	100.0
0°-180°	13629.0	100.0



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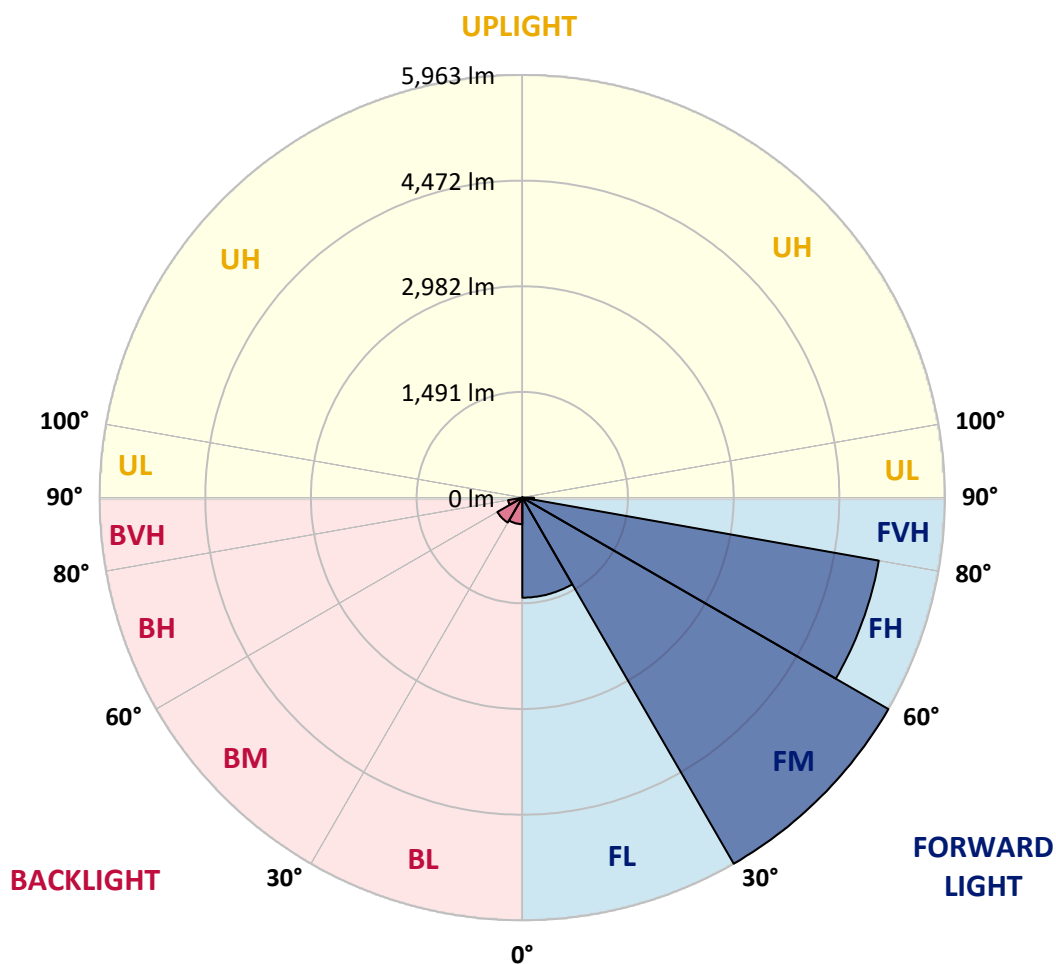
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1410.9	10.4			
FM (30°-60°)	5963.3	43.8			
FH (60°-80°)	5106.8	37.5			G3/7500
FVH (80°-90°)	164.5	1.2			G2/225
BL (0°-30°)	373.5	2.7	B1/500		
BM (30°-60°)	405.5	3.0	B1/1000		
BH (60°-80°)	203.3	1.5	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: B1-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	3612.9	3612.9	3612.9	3612.9	3612.9	3612.9	3612.9	3612.9	3612.9	3612.9	3612.9
2.5°	4193.1	4199.4	4175.8	4156.6	4107.5	4054.6	3984.5	3947.2	3883.4	3773.2	3651.2
5°	4291.4	4299.6	4296.0	4291.4	4272.3	4221.3	4132.0	4099.3	4005.5	3826.0	3605.6
7.5°	4072.8	4102.9	4106.5	4142.1	4175.8	4180.3	4146.6	4122.0	4035.5	3825.1	3524.6
10°	3783.2	3803.3	3832.4	3873.4	3954.5	4021.8	4054.6	4051.0	4000.9	3796.9	3429.9
12.5°	3490.9	3501.8	3546.4	3616.6	3715.8	3830.6	3918.0	3935.3	3936.2	3763.2	3350.6
15°	3239.5	3235.0	3269.6	3350.6	3490.0	3633.9	3790.5	3817.8	3861.6	3730.4	3276.9
17.5°	3024.6	3048.3	3053.7	3143.0	3271.4	3458.1	3657.5	3705.8	3793.3	3702.2	3215.8
20°	2891.6	2904.4	2916.2	2966.3	3082.0	3278.7	3532.8	3599.3	3729.5	3676.7	3147.5
22.5°	2852.5	2860.6	2850.6	2866.1	2948.1	3122.9	3397.1	3485.4	3668.5	3653.0	3092.0
25°	2882.5	2890.7	2867.0	2848.8	2877.0	2996.3	3265.9	3373.4	3619.3	3648.4	3050.1
27.5°	2955.4	2970.8	2938.1	2905.3	2888.9	2928.0	3163.0	3287.8	3585.6	3670.3	3031.0
30°	3069.2	3078.3	3053.7	3013.7	2976.3	2937.2	3109.3	3228.6	3576.5	3721.3	3029.1
32.5°	3193.1	3212.2	3198.5	3172.1	3123.9	3031.0	3124.8	3230.4	3598.4	3795.1	3051.9
35°	3346.1	3367.9	3380.7	3375.2	3313.3	3197.6	3223.1	3312.4	3656.6	3930.8	3113.8
37.5°	3496.3	3515.5	3587.4	3612.0	3557.4	3448.1	3414.4	3473.6	3785.1	4108.4	3225.9
40°	3668.5	3694.0	3795.1	3888.9	3862.5	3747.7	3685.8	3735.0	3981.8	4376.1	3438.1
42.5°	3833.3	3878.9	4032.8	4198.5	4223.1	4094.7	4053.7	4070.1	4273.2	4761.4	3734.1
45°	4067.4	4110.2	4308.7	4533.7	4649.3	4549.2	4507.3	4504.5	4673.0	5303.3	4214.0
47.5°	4405.3	4443.5	4677.6	4899.8	5105.6	5119.3	5040.1	5067.4	5175.8	5937.1	4802.4
50°	4819.7	4909.8	5063.7	5295.1	5570.1	5792.3	5816.9	5780.5	5873.4	6671.2	5509.1
52.5°	5421.7	5456.3	5597.4	5787.8	6110.2	6487.2	6779.6	6729.5	6700.3	7370.7	6223.1
55°	5870.7	5917.1	6136.6	6398.0	6870.7	7367.9	8001.8	8019.1	7651.2	8042.8	6921.7
57.5°	5735.0	5806.0	6138.4	6663.9	7703.1	8612.0	9083.8	9095.6	8530.9	8695.8	7710.4
60°	5038.2	5071.9	5548.3	6249.5	7774.1	9959.9	10618.4	10522.7	9426.2	9426.2	8407.1
62.5°	3572.8	3625.7	4011.8	5043.7	7020.9	10428.0	12456.3	12258.6	10659.4	10124.7	8822.4
65°	2283.2	2232.2	2488.2	3184.0	5230.4	9736.8	14056.4	14068.3	11819.6	10404.3	8595.6
67°	1653.9	1633.9	1707.6	2176.7	3546.4	8184.9	14090.1	14714.0	12486.3	10227.7	7870.7
67.5°	1512.7	1528.2	1582.0	1963.6	3222.2	7448.1	13937.1	14675.7	12636.6	10121.1	7608.4
70°	1146.6	1120.2	1178.5	1388.9	1931.7	4698.5	11989.0	13459.9	12449.9	9063.7	6079.2
72.5°	843.3	840.6	921.7	1135.7	1487.2	2502.7	9000.0	10792.3	10171.2	6901.6	3827.9
75°	569.2	594.7	724.0	949.0	1347.9	1622.9	6135.7	7829.7	7061.0	3918.9	1564.7
77.5°	324.2	326.0	466.3	762.3	1210.4	1306.0	3635.7	4988.1	3737.7	1303.3	464.5
80°	140.3	153.9	231.3	553.7	1003.6	1156.6	2084.7	2741.3	1511.8	276.0	150.3
82.5°	51.9	61.0	102.0	340.6	732.2	952.6	1259.6	1308.7	512.7	97.4	93.8
85°	0.0	1.8	37.3	159.4	381.6	425.3	841.5	776.0	226.8	46.4	61.0
87.5°	0.0	0.0	0.0	16.4	50.1	158.5	261.4	291.4	54.6	16.4	14.6
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°	3612.9	3612.9	3612.9	3612.9	3612.9	3612.9	3612.9	3612.9	3612.9	3612.9	3612.9
2.5°	3585.6	3526.4	3378.0	3229.5	3119.3	3027.3	2888.9	2813.3	2773.2	2714.0	2717.7
5°	3495.4	3375.2	3113.8	2843.3	2624.8	2411.7	2156.6	2053.7	1967.2	1918.0	1885.2
7.5°	3361.6	3184.0	2796.9	2436.2	2100.2	1727.7	1448.1	1261.4	1135.7	1089.3	1044.6
10°	3214.9	2979.0	2475.4	1975.4	1509.1	1124.8	888.0	716.8	655.7	599.3	604.7
12.5°	3079.2	2792.3	2180.3	1559.2	1057.4	714.9	557.4	487.2	467.2	460.8	460.8
15°	2968.1	2613.8	1863.4	1172.1	725.0	513.7	446.3	427.1	419.9	418.0	418.0
17.5°	2849.7	2444.4	1577.4	866.1	527.3	429.9	407.1	394.4	391.6	389.8	389.8
20°	2744.1	2274.1	1306.0	644.8	426.2	387.1	372.5	364.3	361.6	359.7	360.7
22.5°	2643.9	2122.9	1051.0	487.2	375.2	352.5	337.9	329.7	324.2	319.7	320.6
25°	2554.6	1977.2	845.2	398.9	337.9	317.8	303.3	291.4	279.6	274.1	273.2
27.5°	2491.8	1849.7	658.5	341.5	304.2	282.3	264.1	249.5	234.1	225.9	224.0
30°	2439.9	1720.4	520.9	301.5	270.5	249.5	226.8	205.8	189.4	181.2	177.6
32.5°	2406.2	1597.4	410.7	268.7	242.3	216.8	191.3	170.3	152.1	143.9	142.1
35°	2400.7	1494.5	336.1	241.3	216.8	189.4	163.0	140.3	124.8	116.6	114.8
37.5°	2439.9	1415.3	281.4	219.5	195.8	165.8	136.6	115.7	102.0	95.6	94.7
40°	2544.6	1365.2	244.1	201.3	176.7	143.9	116.6	98.4	84.7	78.3	78.3
42.5°	2744.1	1367.0	219.5	184.0	157.6	123.0	99.3	82.0	70.1	64.7	62.8
45°	3055.5	1429.0	198.5	166.7	139.3	106.6	84.7	67.4	55.6	51.0	51.0
47.5°	3472.7	1551.9	180.3	149.4	123.0	91.1	71.9	54.6	44.6	40.1	40.1
50°	4018.2	1749.5	164.8	134.8	109.3	78.3	58.3	44.6	34.6	31.0	30.1
52.5°	4588.3	1993.6	146.6	122.0	93.8	66.5	47.4	34.6	26.4	23.7	22.8
55°	5217.7	2232.2	129.3	109.3	76.5	55.6	37.3	27.3	19.1	16.4	16.4
57.5°	5852.4	2466.3	108.4	91.1	60.1	41.0	29.1	20.0	12.8	10.0	10.0
60°	6389.8	2541.9	92.0	73.8	45.5	29.1	20.9	12.8	7.3	4.6	4.6
62.5°	6463.6	2286.9	77.4	56.5	32.8	20.0	10.9	7.3	2.7	1.8	1.8
65°	6062.8	1857.9	64.7	42.8	21.9	10.0	4.6	2.7	0.9	0.0	0.0
67°	5432.6	1506.4	52.8	31.9	15.5	6.4	2.7	0.9	0.0	0.0	0.0
67.5°	5271.4	1436.2	51.0	30.1	13.7	5.5	1.8	0.9	0.0	0.0	0.0
70°	4136.6	1075.6	36.4	18.2	8.2	3.6	0.0	0.0	0.0	0.0	0.0
72.5°	2571.0	608.4	26.4	10.9	5.5	1.8	0.0	0.0	0.0	0.0	0.0
75°	971.8	213.1	18.2	7.3	3.6	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	302.4	81.1	10.9	5.5	1.8	0.0	0.0	0.0	0.0	0.0	0.0
80°	102.0	31.0	7.3	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	62.8	12.8	4.6	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	39.2	5.5	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	7.3	1.8	0.9	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)