

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: P300927

Luminaire Tested: **GLNA-AF-05-LED-E1-SL4-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300927
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
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-SL4-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22758.4 lumens
Efficiency: N/A
Efficacy: 108.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G4

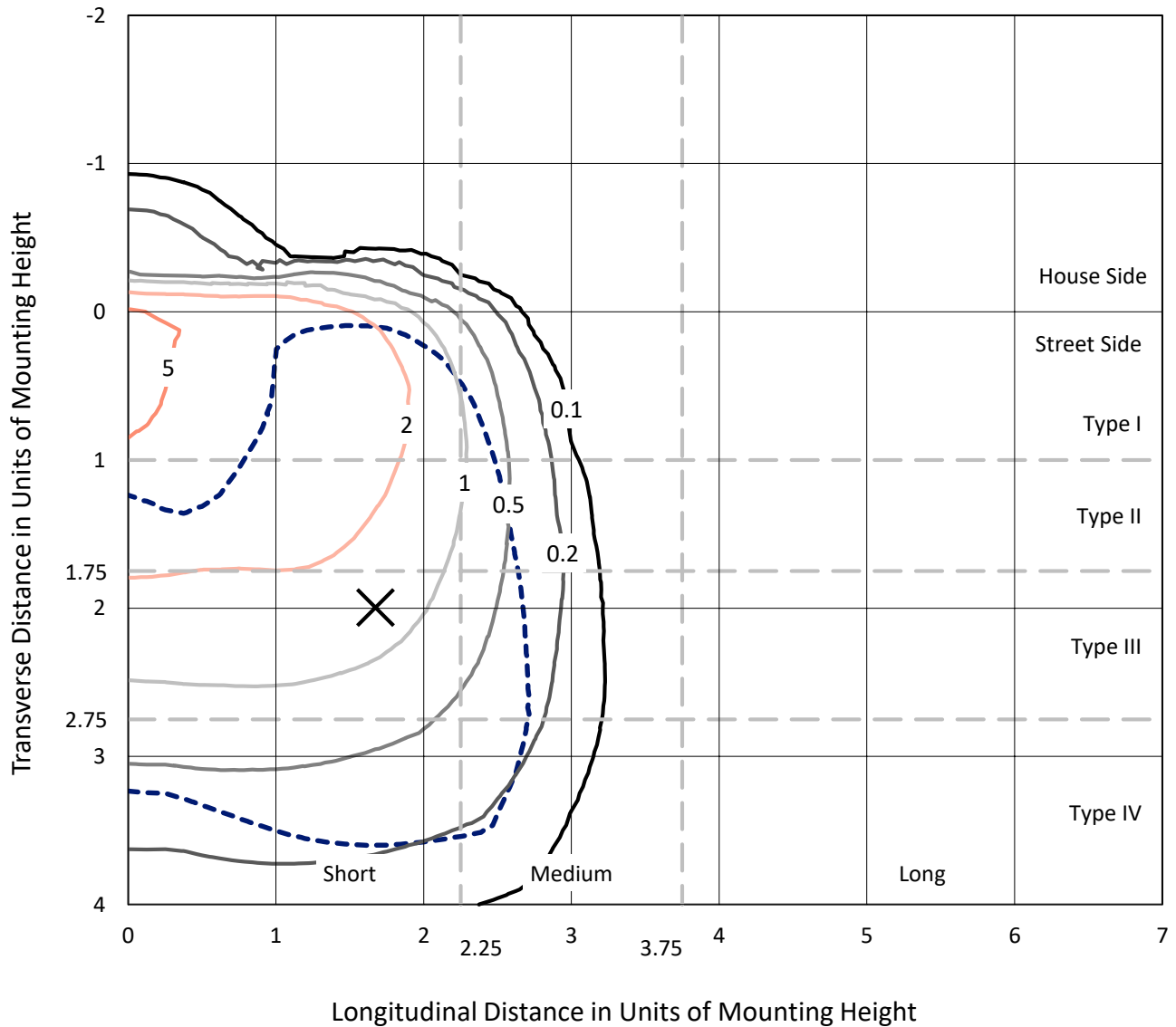
Input Watts (W): 210
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

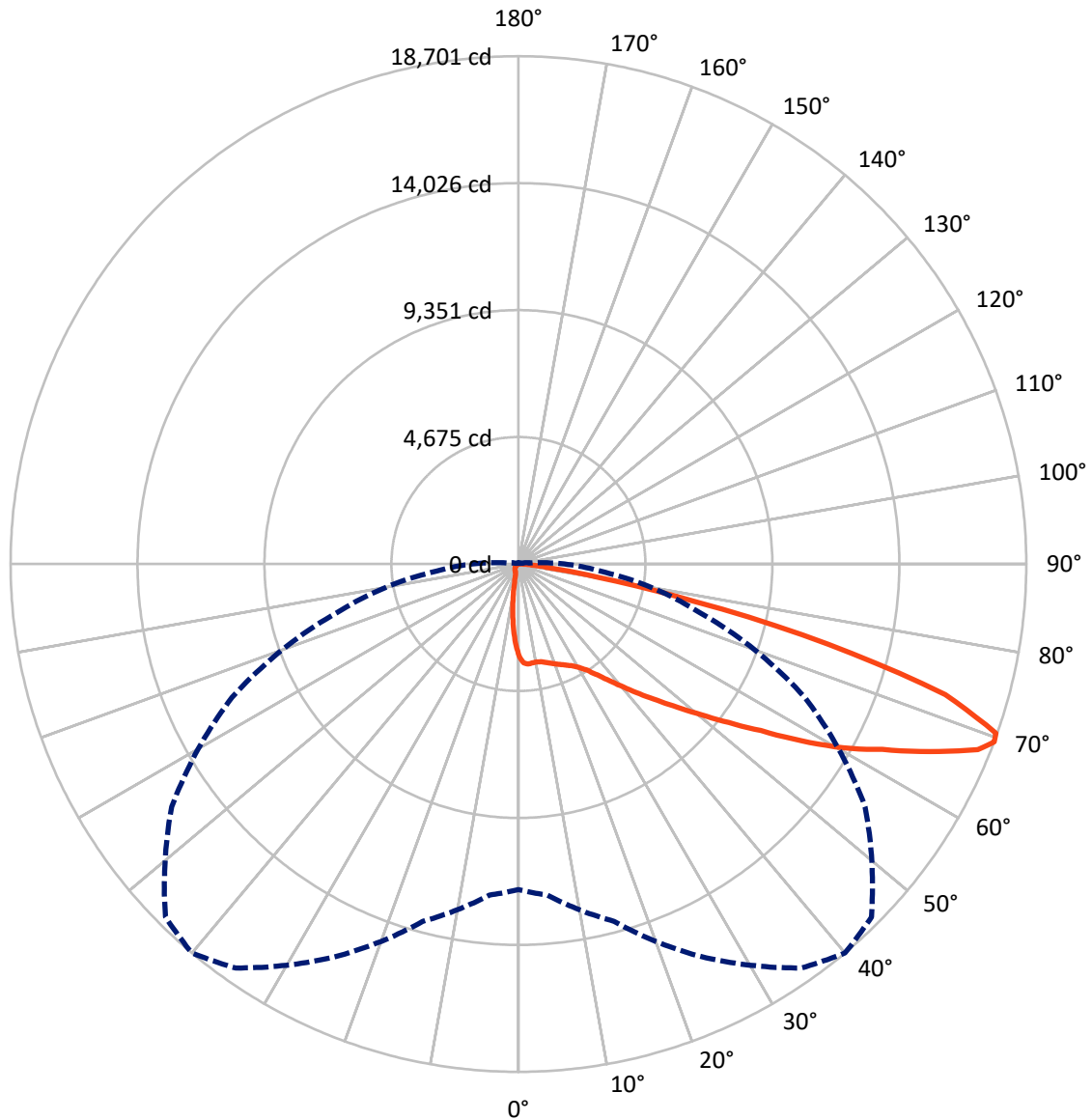
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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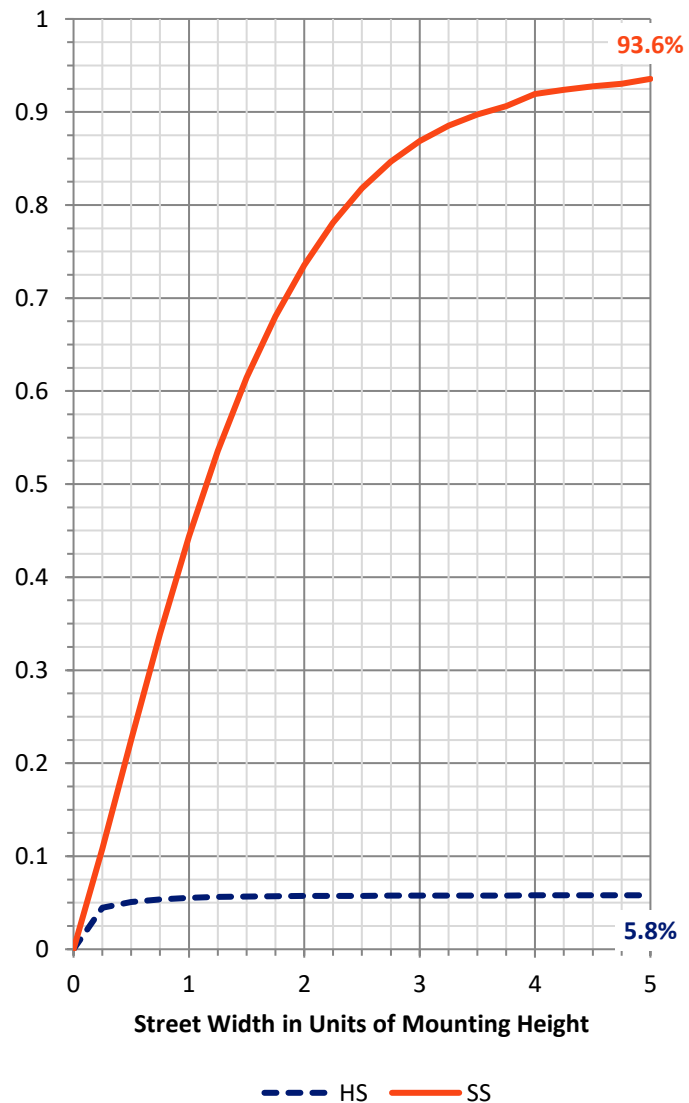
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1331.5	0.0	1331.5
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	21426.9	0.0	21426.9
	% Fixture	94.1	0.0	94.1
Total	Lumens	22758.4	0.0	22758.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	275.7	1.2
10°-20°	678.0	3.0
20°-30°	1141.9	5.0
30°-40°	1869.4	8.2
40°-50°	3236.8	14.2
50°-60°	5098.3	22.4
60°-70°	6658.1	29.3
70°-80°	3429.2	15.1
80°-90°	370.9	1.6
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°	22758.4	100.0
0°-180°	22758.4	100.0



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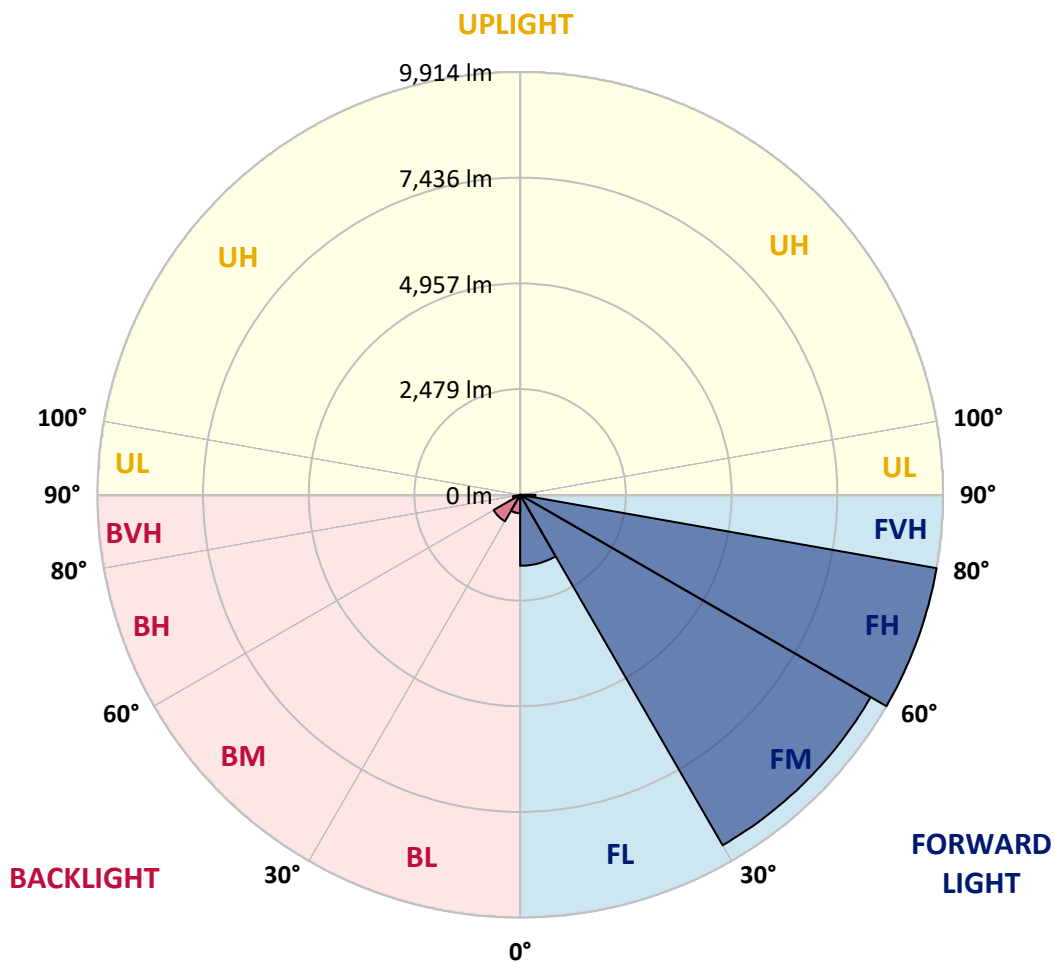
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1664.3	7.3			
FM	(30°-60°)	9488.8	41.7			
FH	(60°-80°)	9914.5	43.6			G4/12000
FVH	(80°-90°)	359.3	1.6			G3/500
BL	(0°-30°)	431.3	1.9	B1/500		
BM	(30°-60°)	715.7	3.1	B1/1000		
BH	(60°-80°)	172.9	0.8	B1/500		G1/500
BVH	(80°-90°)	11.6	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	3400.2	3400.2	3400.2	3400.2	3400.2	3400.2	3400.2	3400.2	3400.2	3400.2	3400.2
2.5°	3733.5	3713.1	3701.0	3684.7	3664.4	3646.8	3640.0	3589.9	3542.5	3477.4	3402.9
5°	3802.6	3795.8	3774.1	3752.4	3728.0	3701.0	3686.1	3626.4	3558.7	3463.9	3333.8
7.5°	3809.3	3801.2	3774.1	3744.3	3710.4	3677.9	3652.2	3592.6	3530.3	3434.1	3275.6
10°	3798.5	3789.0	3768.7	3736.2	3694.2	3663.0	3637.3	3580.4	3527.6	3440.9	3264.8
12.5°	3786.3	3776.8	3767.3	3751.1	3714.5	3692.8	3671.2	3617.0	3569.6	3496.4	3304.0
15°	3798.5	3793.1	3803.9	3797.1	3776.8	3757.9	3736.2	3687.4	3644.1	3583.1	3375.8
17.5°	3850.0	3850.0	3883.8	3887.9	3868.9	3841.8	3810.7	3761.9	3725.3	3673.9	3461.2
20°	3970.5	3966.5	4009.8	4017.9	3971.9	3929.9	3883.8	3824.2	3795.8	3763.3	3545.2
22.5°	4177.8	4158.8	4184.6	4176.4	4085.7	4020.7	3963.8	3890.6	3875.7	3860.8	3638.6
25°	4447.4	4436.5	4454.1	4374.2	4214.4	4126.3	4058.6	3976.0	3976.0	3990.9	3744.3
27.5°	4838.9	4798.2	4738.6	4597.7	4358.0	4245.5	4172.4	4084.3	4107.4	4162.9	3883.8
30°	5239.9	5195.2	5058.3	4841.6	4532.7	4414.9	4329.5	4237.4	4291.6	4393.2	4070.8
32.5°	5635.4	5585.3	5391.6	5117.9	4783.3	4665.5	4582.8	4481.2	4572.0	4742.7	4344.4
35°	6018.8	5974.1	5750.6	5428.2	5116.6	5019.0	4943.2	4855.1	4971.6	5210.1	4730.5
37.5°	6449.6	6400.8	6128.5	5779.0	5521.6	5451.2	5395.6	5307.6	5510.8	5860.3	5268.3
40°	6979.3	6896.6	6529.5	6181.4	5990.3	5956.5	5918.5	5906.4	6222.0	6705.6	5984.9
42.5°	7586.1	7450.7	6949.4	6605.4	6505.1	6529.5	6520.0	6574.2	7112.0	7756.8	6857.3
45°	8193.0	8018.3	7416.8	7057.8	7071.4	7156.7	7209.5	7426.3	8226.9	8962.5	7796.1
47.5°	8707.8	8535.8	7865.2	7546.9	7709.4	7877.4	8021.0	8431.5	9373.0	10149.2	8526.3
50°	9148.1	8985.5	8340.7	8084.7	8450.4	8721.4	8954.4	9562.6	10605.7	11052.7	9038.3
52.5°	9508.4	9400.0	8833.8	8701.0	9297.1	9694.0	10035.4	10764.2	11697.6	11787.0	9436.6
55°	9859.3	9782.1	9363.5	9433.9	10291.4	10831.9	11264.1	12038.9	12637.7	12399.3	9818.6
57.5°	10263.0	10192.5	9967.7	10363.2	11598.7	12278.7	12750.1	13168.7	13465.4	13025.1	10179.0
60°	10674.8	10634.1	10639.6	11395.5	13099.6	13752.6	14012.7	14121.1	14278.2	13614.4	10199.3
62.5°	11067.6	11144.9	11407.7	12544.2	14536.9	15038.2	15169.6	15276.6	15092.4	13707.9	9423.1
65°	11732.8	11858.8	12486.0	14081.8	16117.8	16654.3	16789.8	16422.6	15221.1	12499.5	7664.7
67.5°	12057.9	12288.2	13407.2	15515.0	17651.3	18247.4	18197.3	16497.2	13659.1	9531.4	4918.8
69°	11990.2	12235.4	13619.8	15953.9	18160.7	18701.2	18382.9	15585.5	11636.6	6904.7	3019.6
70°	11721.9	11969.8	13510.1	15937.7	18225.7	18653.8	18038.8	14459.7	9839.0	5048.8	1888.4
72.5°	9788.8	10002.9	11994.2	14405.5	16789.8	16441.6	15091.0	10017.8	4794.2	1375.0	425.4
75°	6025.6	6144.8	8606.2	10852.2	12681.1	11787.0	10054.3	4983.8	1429.2	388.8	235.7
77.5°	3183.5	3237.7	4711.5	6396.7	8038.6	6651.4	5153.2	1943.9	658.4	243.8	170.7
80°	1881.6	1922.3	2537.3	2924.7	3478.8	2905.8	2060.5	1193.5	471.4	153.1	151.7
82.5°	1077.0	1102.7	1839.6	1625.6	1370.9	1170.4	1025.5	1131.1	283.1	103.0	157.1
85°	395.6	401.0	1035.0	1236.8	815.5	485.0	509.4	937.4	75.9	65.0	123.3
87.5°	184.2	180.2	532.4	757.3	476.8	307.5	396.9	205.9	29.8	42.0	33.9
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°	3400.2	3400.2	3400.2	3400.2	3400.2	3400.2	3400.2	3400.2	3400.2	3400.2	3400.2
2.5°	3359.6	3309.5	3218.7	3125.2	3030.4	2957.2	2885.4	2828.5	2809.6	2774.4	2777.1
5°	3256.6	3164.5	2974.9	2782.5	2582.0	2416.7	2260.9	2135.0	2074.0	2011.7	2011.7
7.5°	3167.2	3033.1	2736.4	2423.5	2099.7	1827.4	1582.3	1398.0	1296.4	1215.1	1213.8
10°	3133.3	2951.8	2537.3	2088.9	1637.8	1266.6	975.4	788.4	692.2	629.9	627.2
12.5°	3148.2	2923.4	2384.2	1780.0	1213.8	814.2	564.9	444.3	403.7	384.7	384.7
15°	3191.6	2915.2	2231.1	1477.9	857.5	509.4	375.2	342.7	340.0	340.0	340.0
17.5°	3244.4	2918.0	2074.0	1184.0	583.9	364.4	323.8	319.7	322.4	322.4	322.4
20°	3298.6	2919.3	1904.7	911.7	411.8	317.0	304.8	303.4	306.2	306.2	307.5
22.5°	3365.0	2926.1	1735.3	681.4	340.0	299.4	289.9	289.9	291.3	291.3	289.9
25°	3440.9	2939.6	1559.2	505.3	310.2	287.2	279.1	277.7	279.1	277.7	276.4
27.5°	3535.7	2958.6	1362.8	395.6	296.7	275.0	268.2	268.2	266.9	265.5	264.2
30°	3654.9	2980.3	1142.0	336.0	283.1	264.2	257.4	256.0	254.7	252.0	252.0
32.5°	3836.4	3027.7	923.9	304.8	268.2	249.3	243.8	243.8	241.1	238.4	237.1
35°	4115.5	3121.2	728.8	285.8	252.0	233.0	226.2	226.2	223.5	222.2	220.8
37.5°	4501.6	3263.4	566.3	268.2	235.7	215.4	208.6	207.3	204.6	201.8	200.5
40°	5015.0	3439.5	445.7	252.0	219.5	197.8	192.4	189.7	184.2	180.2	180.2
42.5°	5659.8	3640.0	361.7	234.4	200.5	181.5	177.5	173.4	163.9	159.9	158.5
45°	6334.4	3820.2	306.2	214.0	181.5	165.3	162.6	155.8	143.6	139.5	139.5
47.5°	6820.8	3862.2	269.6	195.1	163.9	147.7	146.3	134.1	123.3	120.6	119.2
50°	7124.2	3779.5	239.8	176.1	147.7	131.4	127.3	112.4	105.7	103.0	101.6
52.5°	7328.8	3631.9	215.4	159.9	132.8	116.5	107.0	96.2	90.8	88.1	88.1
55°	7492.7	3423.2	191.0	144.9	120.6	104.3	90.8	82.6	77.2	74.5	74.5
57.5°	7538.7	3140.1	166.6	132.8	108.4	92.1	77.2	71.8	65.0	63.7	63.7
60°	7204.1	2629.4	147.7	117.9	97.5	79.9	67.7	61.0	54.2	52.8	51.5
62.5°	6322.2	2034.7	130.0	104.3	85.3	69.1	58.3	50.1	44.7	44.7	44.7
65°	4822.6	1364.2	113.8	90.8	74.5	58.3	50.1	40.6	37.9	37.9	39.3
67.5°	2886.8	742.4	97.5	77.2	63.7	48.8	42.0	35.2	33.9	35.2	35.2
69°	1692.0	436.2	88.1	69.1	55.5	43.3	36.6	31.2	33.9	35.2	35.2
70°	1044.4	294.0	81.3	62.3	50.1	39.3	33.9	29.8	32.5	33.9	33.9
72.5°	291.3	151.7	65.0	48.8	40.6	32.5	27.1	27.1	31.2	32.5	32.5
75°	189.7	112.4	50.1	36.6	31.2	25.7	23.0	25.7	29.8	31.2	31.2
77.5°	157.1	92.1	40.6	29.8	25.7	24.4	21.7	23.0	27.1	28.4	28.4
80°	143.6	65.0	32.5	27.1	23.0	21.7	20.3	19.0	24.4	25.7	25.7
82.5°	136.8	51.5	28.4	24.4	21.7	19.0	17.6	19.0	21.7	23.0	24.4
85°	85.3	33.9	25.7	23.0	19.0	17.6	17.6	17.6	20.3	21.7	21.7
87.5°	31.2	27.1	23.0	19.0	16.3	16.3	16.3	16.3	17.6	20.3	20.3
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)