

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: P300301

Luminaire Tested: **GLNA-AF-02-LED-E1-AFL-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300301
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24165)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-02-LED-E1-AFL-7027
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10818.2 lumens
Efficiency: N/A
Efficacy: 95.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G1

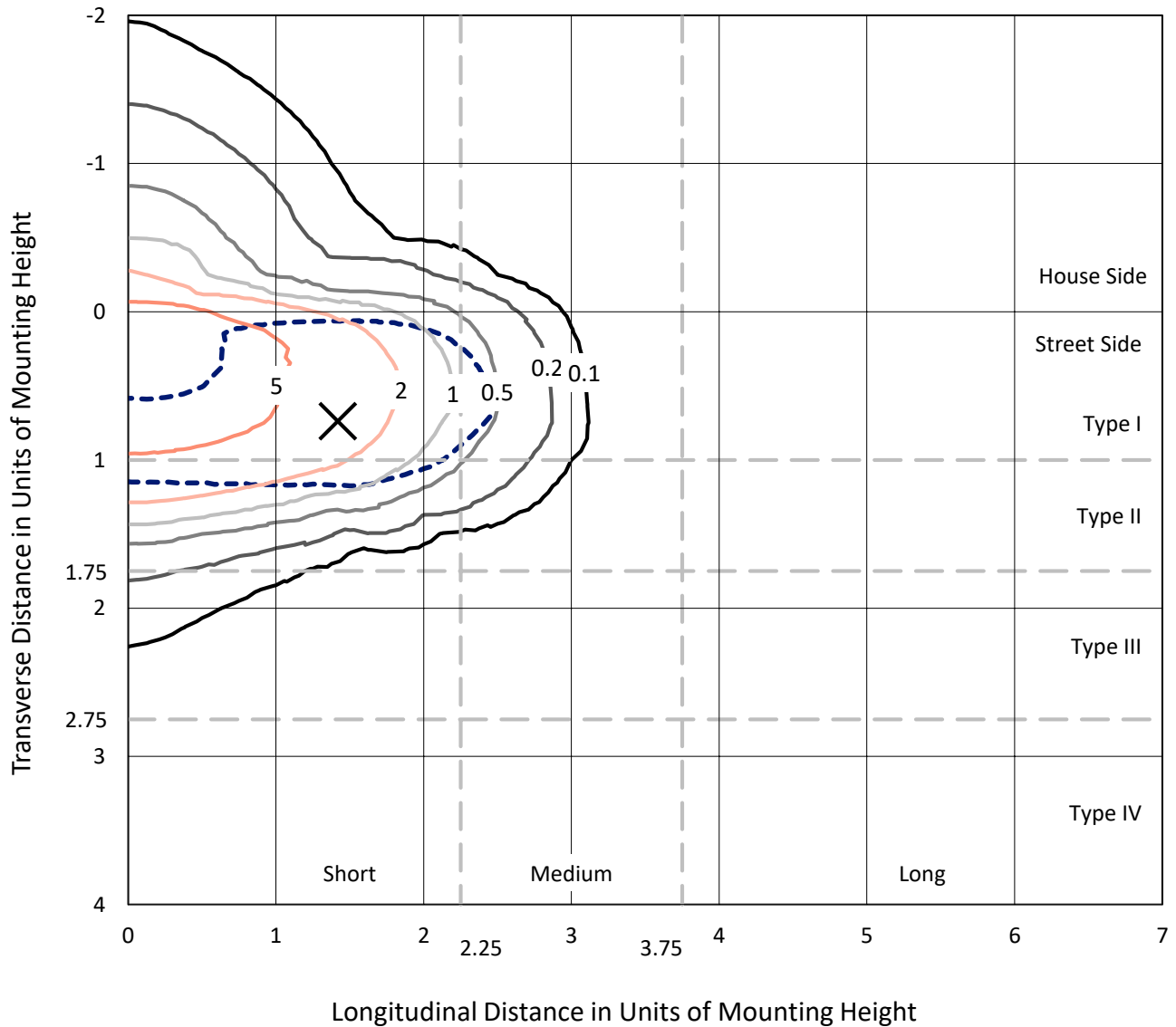
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

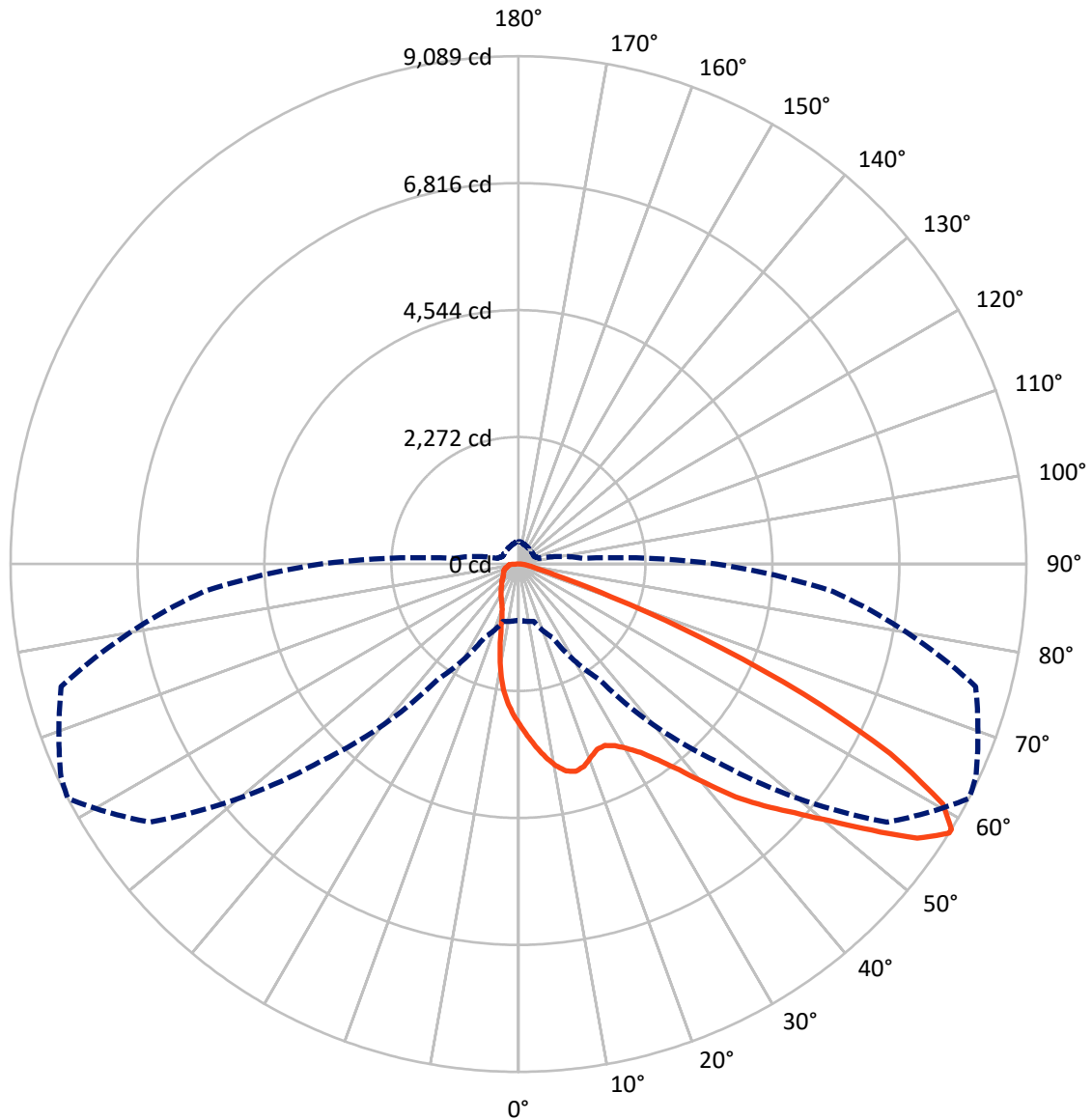
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 8.8 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral - - - Horizontal Cone Through 58-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1649.8	0.0	1649.8
	% Fixture	15.3	0.0	15.3
Street Side	Lumens	9168.4	0.0	9168.4
	% Fixture	84.7	0.0	84.7
Total	Lumens	10818.2	0.0	10818.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.0	2.4
10°-20°	656.9	6.1
20°-30°	1062.0	9.8
30°-40°	1685.9	15.6
40°-50°	2466.8	22.8
50°-60°	2580.0	23.8
60°-70°	1524.3	14.1
70°-80°	429.4	4.0
80°-90°	155.9	1.4
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°	10818.2	100.0
0°-180°	10818.2	100.0



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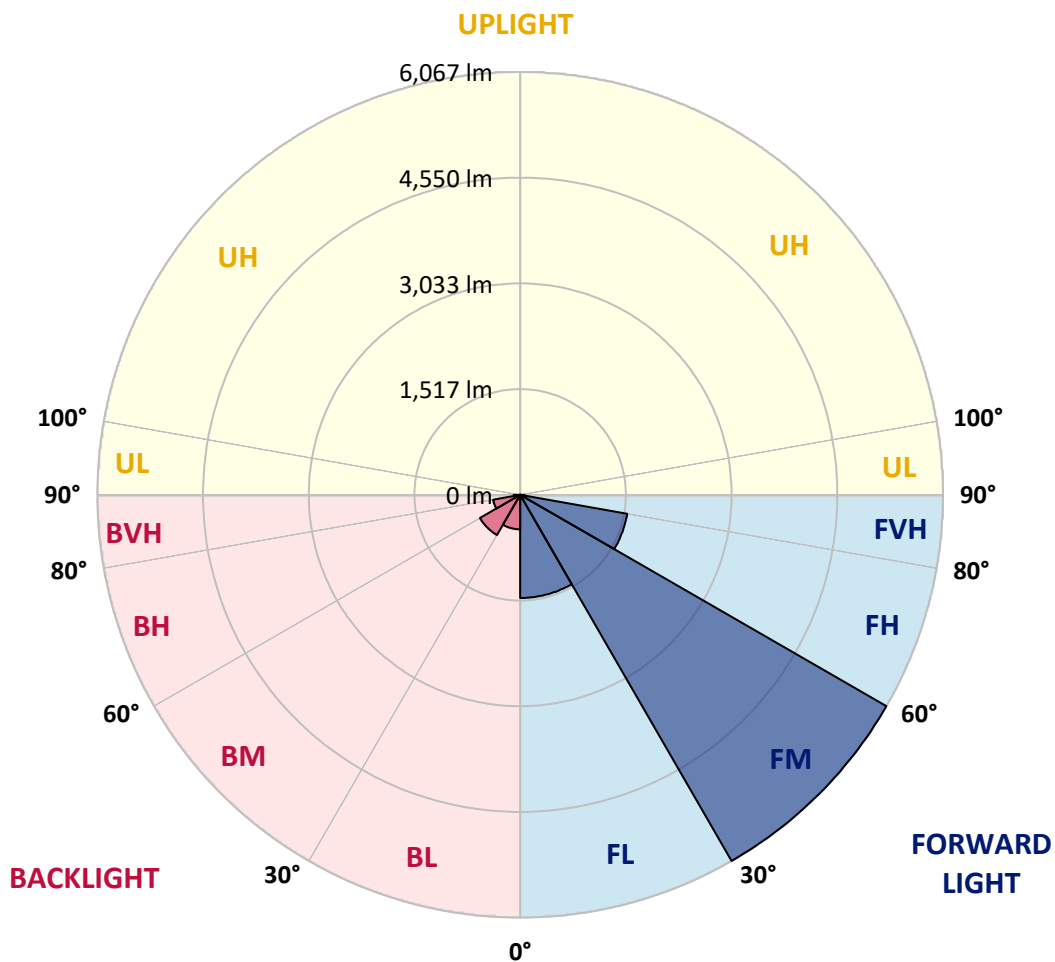
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1480.1	13.7			
FM (30°-60°)	6066.8	56.1			
FH (60°-80°)	1560.0	14.4			G1/1800
FVH (80°-90°)	61.5	0.6			G1/100
BL (0°-30°)	495.9	4.6	B1/500		
BM (30°-60°)	665.9	6.2	B1/1000		
BH (60°-80°)	393.7	3.6	B1/500		G1/500
BVH (80°-90°)	94.4	0.9			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	2873.6	2873.6	2873.6	2873.6	2873.6	2873.6	2873.6	2873.6	2873.6	2873.6	2873.6
2.5°	3283.7	3257.2	3240.4	3225.6	3206.3	3165.0	3109.5	3074.4	3056.5	2995.9	2924.1
5°	3605.7	3582.2	3564.9	3545.1	3510.4	3445.7	3356.1	3284.7	3249.6	3128.3	2984.7
7.5°	3530.3	3540.0	3570.0	3622.5	3667.3	3658.7	3578.7	3488.0	3441.6	3273.0	3055.0
10°	3075.9	3092.7	3144.7	3267.4	3466.1	3669.9	3732.0	3669.4	3622.5	3416.2	3127.3
12.5°	2984.7	2984.2	2988.3	3020.9	3139.0	3425.9	3737.1	3800.3	3772.3	3552.7	3201.2
15°	3021.9	3022.9	3019.8	3033.6	3070.3	3183.9	3581.2	3850.7	3870.6	3690.2	3277.6
17.5°	3119.7	3117.1	3105.4	3105.4	3118.7	3163.0	3397.8	3803.8	3895.5	3812.0	3344.9
20°	3283.7	3272.0	3240.9	3212.4	3198.1	3222.1	3322.4	3695.8	3852.2	3918.5	3400.4
22.5°	3482.4	3473.2	3422.8	3361.7	3312.2	3311.7	3361.2	3601.6	3777.4	4018.8	3447.2
25°	3739.1	3724.4	3649.5	3551.7	3465.1	3432.0	3445.7	3597.0	3736.6	4127.8	3489.0
27.5°	4040.7	4013.7	3925.1	3784.0	3656.6	3589.9	3570.0	3680.1	3773.8	4262.8	3547.1
30°	4406.5	4375.4	4261.8	4077.9	3898.1	3788.6	3746.3	3827.3	3897.1	4427.4	3640.3
32.5°	4822.7	4777.9	4646.4	4443.7	4207.3	4040.2	3971.4	4021.9	4077.4	4625.5	3757.0
35°	5397.8	5344.3	5154.3	4874.6	4607.7	4378.0	4267.9	4304.6	4358.6	4921.0	3925.6
37.5°	5790.1	5766.1	5639.8	5376.9	5086.6	4822.2	4652.0	4673.4	4704.0	5290.3	4141.6
40°	5786.5	5796.2	5798.7	5801.3	5603.6	5350.4	5167.6	5145.1	5139.0	5695.8	4387.1
42.5°	5496.6	5536.4	5664.8	5925.1	6045.3	5929.1	5761.5	5696.8	5664.8	6173.7	4647.4
45°	5052.9	5074.3	5314.8	5823.2	6271.5	6502.2	6375.4	6171.6	6113.6	6612.8	4863.4
47.5°	4824.2	4847.6	4998.9	5553.2	6268.9	6965.3	7038.7	6650.5	6546.6	6994.8	5049.9
50°	4279.6	4328.5	4519.1	5083.5	6040.2	7178.2	7732.0	7221.0	7006.1	7366.7	5236.8
52.5°	3279.6	3355.0	3568.5	4311.2	5460.0	7072.8	8286.7	7912.8	7609.2	7751.8	5397.3
55°	2068.8	2124.8	2304.1	3044.8	4367.8	6524.1	8497.1	8661.2	8391.2	8116.6	5536.4
57.5°	1124.8	1149.8	1217.0	1681.1	2841.0	5311.2	8190.5	9087.0	8975.0	8426.3	5641.3
58°	1006.6	1023.4	1065.2	1456.9	2519.6	4979.6	8054.4	9088.6	9032.5	8471.7	5649.5
60°	746.8	738.1	701.0	831.4	1402.4	3440.1	7232.2	8724.8	8889.4	8527.2	5609.7
62.5°	656.1	635.2	559.3	550.7	682.1	1584.8	5533.8	7473.7	7862.4	8210.3	5368.3
65°	616.4	594.0	496.2	464.6	492.1	670.4	3259.8	5605.1	6092.7	7249.6	4750.9
67.5°	586.9	557.8	455.9	412.6	414.7	443.2	1306.7	3530.3	4078.9	5504.3	3695.3
70°	558.3	526.7	421.8	371.9	360.2	350.5	519.6	1767.2	2264.9	3476.8	2356.1
72.5°	527.8	496.7	391.7	339.8	316.9	284.8	339.3	722.9	1009.7	1644.9	1068.8
75°	483.4	455.4	361.7	311.3	278.7	235.9	256.2	377.5	452.9	655.1	515.0
77.5°	428.9	406.0	328.1	287.8	247.1	191.5	197.1	261.8	290.4	374.9	306.2
80°	308.2	316.3	291.9	258.8	220.1	155.4	151.3	191.0	206.3	241.0	199.2
82.5°	216.5	221.1	241.5	211.4	181.9	122.3	111.6	134.5	143.7	158.4	107.5
85°	149.3	144.2	165.6	147.2	131.4	81.5	76.4	91.2	96.8	98.3	55.5
87.5°	89.7	89.7	95.8	79.0	70.8	42.3	41.3	52.0	55.5	53.0	30.6
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°	2873.6	2873.6	2873.6	2873.6	2873.6	2873.6	2873.6	2873.6	2873.6	2873.6	2873.6
2.5°	2881.3	2845.1	2768.2	2706.5	2628.6	2547.6	2502.3	2453.9	2420.8	2396.8	2435.0
5°	2903.2	2829.3	2670.4	2519.6	2353.0	2179.8	2048.4	1926.1	1841.0	1788.1	1838.0
7.5°	2937.8	2824.2	2571.0	2313.3	2014.2	1725.9	1468.1	1306.7	1212.4	1166.1	1195.1
10°	2977.6	2816.1	2454.4	2033.6	1605.7	1242.5	1049.9	984.7	963.3	954.7	958.7
12.5°	3010.7	2798.8	2311.2	1695.4	1205.8	981.1	925.6	924.1	928.7	929.7	931.2
15°	3034.1	2773.3	2098.8	1342.8	964.3	894.0	891.0	900.1	908.8	912.4	914.4
17.5°	3049.9	2720.8	1858.9	1061.6	864.0	851.8	858.9	870.6	879.8	882.3	884.4
20°	3048.4	2643.9	1573.1	885.4	809.5	809.5	821.7	830.9	831.4	828.3	829.8
22.5°	3032.6	2538.4	1296.0	791.6	761.1	769.7	782.0	773.3	737.6	714.2	715.7
25°	3006.1	2412.6	1058.6	732.0	716.2	731.5	728.0	662.8	611.8	588.9	588.9
27.5°	2982.7	2263.9	876.2	680.1	671.4	690.3	627.1	568.0	546.6	535.9	532.3
30°	2965.8	2103.4	754.5	630.2	629.1	615.4	544.1	527.8	524.2	515.5	512.5
32.5°	2969.9	1940.9	676.5	586.3	589.9	526.7	504.3	507.9	504.8	495.7	491.6
35°	3003.5	1786.5	625.6	546.6	535.9	475.8	480.9	487.5	486.5	473.8	469.7
37.5°	3063.7	1640.3	591.9	513.5	467.6	450.3	458.5	468.7	466.1	457.5	454.4
40°	3126.8	1502.8	564.4	487.5	427.4	433.0	440.1	445.7	448.3	450.8	448.8
42.5°	3188.5	1359.1	530.8	461.0	410.6	416.7	419.8	425.4	439.1	448.8	448.3
45°	3225.1	1224.1	496.2	423.3	397.3	400.9	398.9	410.1	426.9	442.7	443.2
47.5°	3265.9	1119.2	468.7	388.7	384.6	387.2	381.0	392.3	407.5	426.9	428.9
50°	3315.3	1056.5	446.8	361.2	367.3	367.3	365.8	376.0	397.3	419.8	423.8
52.5°	3371.3	1044.3	428.4	341.3	350.0	349.5	351.0	366.3	389.7	411.6	415.2
55°	3439.6	1077.4	408.6	326.5	333.2	335.2	340.3	357.6	377.5	402.4	404.0
57.5°	3519.1	1144.7	392.8	314.8	317.9	324.5	332.7	348.4	369.8	397.3	398.9
58°	3532.3	1158.9	390.2	313.8	314.8	322.5	331.6	346.9	368.3	398.4	399.9
60°	3532.8	1206.3	384.6	309.2	303.1	315.8	326.0	341.3	365.8	401.9	405.5
62.5°	3407.5	1205.8	380.5	302.6	290.9	306.7	318.4	336.2	363.2	410.6	417.7
65°	3000.5	1095.8	361.2	292.4	281.2	298.5	311.8	332.7	370.3	448.3	452.9
67.5°	2346.9	898.1	325.0	278.1	268.5	290.4	307.7	332.1	378.0	456.9	460.0
70°	1551.7	671.9	285.3	261.8	255.2	280.7	309.7	349.5	369.3	438.6	430.5
72.5°	805.4	471.7	253.2	241.5	239.9	272.0	339.3	347.4	360.7	412.6	402.4
75°	422.8	327.6	225.2	219.1	221.6	270.0	400.4	338.3	349.5	394.8	414.2
77.5°	258.8	264.4	201.2	198.7	203.8	263.9	399.9	326.5	333.2	363.2	384.6
80°	173.2	214.5	182.9	183.4	187.0	241.5	359.1	308.2	313.3	343.3	365.3
82.5°	109.5	126.8	166.1	174.7	170.1	199.2	305.1	280.7	287.8	392.8	415.2
85°	55.5	79.5	144.2	168.1	153.3	139.6	247.6	246.0	249.6	283.2	296.0
87.5°	25.5	43.8	112.6	146.7	115.6	87.1	179.8	182.4	196.6	201.2	201.2
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)