

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: P300609

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300609
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24297)
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-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline WITH HOUSESIDE SHIELD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9056.9 lumens
Efficiency: N/A
Efficacy: 80.1 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

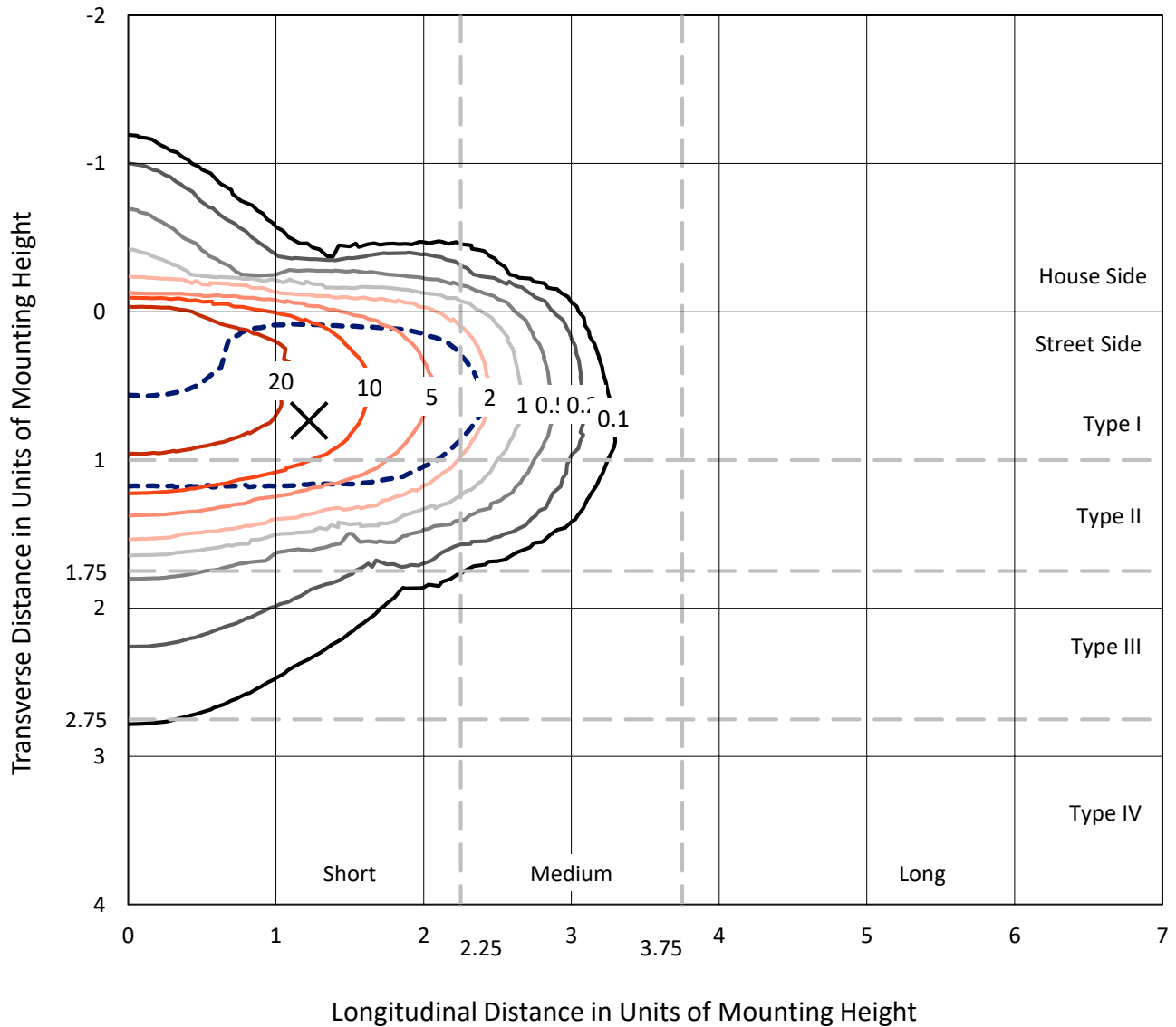
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

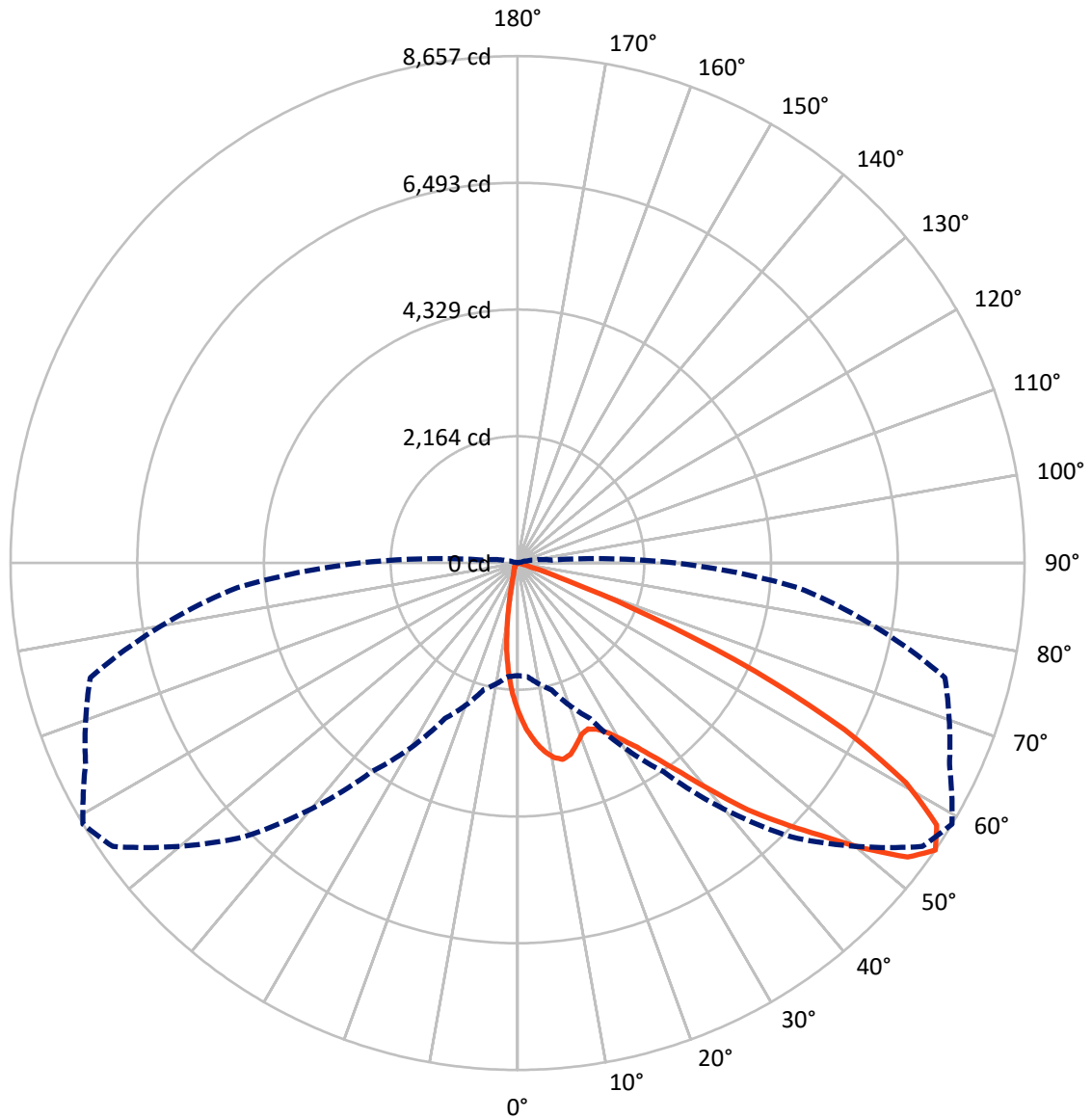
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 31.7 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

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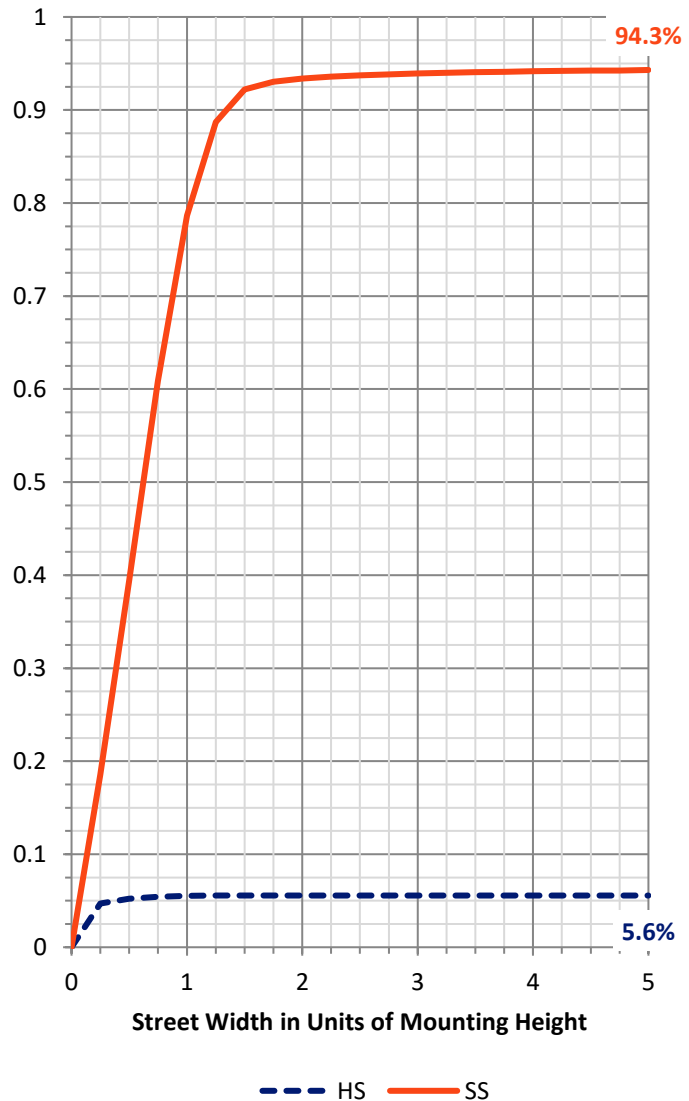
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	505.9	0.0	505.9
	% Fixture	5.6	0.0	5.6
Street Side	Lumens	8551.1	0.0	8551.1
	% Fixture	94.4	0.0	94.4
Total	Lumens	9056.9	0.0	9056.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.5	2.4
10°-20°	511.3	5.6
20°-30°	870.0	9.6
30°-40°	1496.2	16.5
40°-50°	2310.0	25.5
50°-60°	2322.3	25.6
60°-70°	1190.9	13.1
70°-80°	129.1	1.4
80°-90°	13.5	0.1
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°	9056.9	100.0
0°-180°	9056.9	100.0

Coefficient of Utilization



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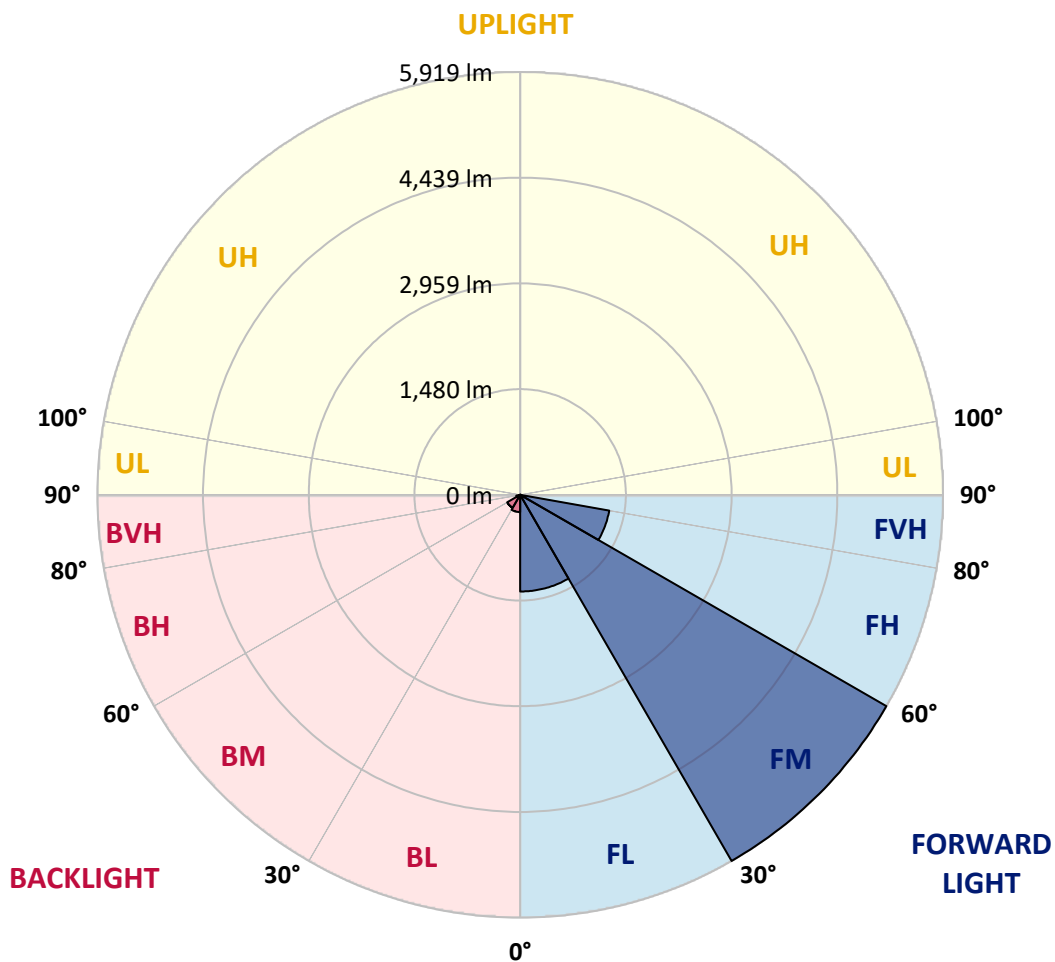
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1353.4	14.9			
FM	(30°-60°)	5918.7	65.3			
FH	(60°-80°)	1265.8	14.0			G1/1800
FVH	(80°-90°)	13.2	0.1			G1/100
BL	(0°-30°)	241.5	2.7	B1/500		
BM	(30°-60°)	210.0	2.3	B0/220		
BH	(60°-80°)	54.2	0.6	B0/110		G0/110
BVH	(80°-90°)	0.3	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-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	2549.5	2549.5	2549.5	2549.5	2549.5	2549.5	2549.5	2549.5	2549.5	2549.5	2549.5
2.5°	3016.6	2984.6	2974.9	2968.5	2939.1	2902.3	2852.0	2828.5	2780.4	2702.9	2607.8
5°	3293.0	3287.1	3265.7	3254.0	3222.4	3170.0	3089.9	3051.4	2974.9	2844.5	2674.0
7.5°	3172.2	3209.1	3238.5	3287.6	3349.6	3347.5	3280.1	3240.1	3154.5	2982.4	2747.8
10°	2705.6	2735.5	2783.6	2895.3	3123.0	3324.0	3403.1	3374.2	3305.8	3109.1	2818.9
12.5°	2614.2	2611.0	2619.5	2652.1	2771.3	3057.8	3382.2	3440.5	3426.6	3225.1	2886.2
15°	2662.8	2659.1	2658.0	2669.2	2698.1	2818.9	3225.6	3392.9	3500.3	3332.5	2943.4
17.5°	2799.1	2783.1	2774.5	2765.4	2756.9	2786.8	3037.5	3259.8	3511.6	3426.6	2991.0
20°	3032.7	3005.9	2974.4	2923.1	2875.0	2860.0	2958.4	3123.0	3471.5	3498.2	3022.0
22.5°	3326.1	3291.9	3237.4	3143.8	3046.0	2989.4	2997.4	3079.7	3411.6	3576.2	3036.4
25°	3655.9	3612.1	3539.4	3409.5	3265.7	3165.2	3112.8	3141.7	3384.4	3667.6	3053.0
27.5°	4009.2	3960.5	3865.4	3688.5	3525.5	3389.7	3282.8	3279.1	3430.9	3787.4	3079.7
30°	4359.3	4351.8	4227.8	4040.7	3824.8	3659.6	3505.7	3485.9	3560.7	3953.1	3132.6
32.5°	4826.4	4770.3	4618.5	4426.1	4177.0	3978.7	3796.5	3750.5	3760.1	4146.0	3214.4
35°	5415.4	5353.9	5140.2	4874.5	4596.0	4361.9	4160.4	4097.9	4074.4	4461.9	3352.3
37.5°	5796.0	5794.9	5660.7	5390.3	5091.5	4833.4	4614.2	4541.0	4493.4	4843.5	3566.1
40°	5806.1	5831.2	5848.9	5846.2	5633.5	5395.6	5201.1	5110.8	5000.1	5353.4	3842.4
42.5°	5494.5	5559.2	5714.7	5978.8	6104.9	6010.3	5846.2	5757.5	5592.9	5899.1	4179.1
45°	5073.3	5118.2	5390.3	5876.7	6360.4	6619.6	6494.5	6335.8	6118.8	6468.3	4481.1
47.5°	4884.7	4892.7	5068.5	5602.5	6379.6	7118.8	7194.7	6936.6	6596.6	6926.9	4717.4
50°	4320.8	4335.2	4577.9	5127.3	6154.1	7354.5	7898.1	7653.3	7117.7	7280.2	4803.4
52.5°	3256.6	3276.9	3584.8	4346.4	5534.1	7254.0	8401.6	8342.3	7688.6	7452.9	4808.2
55°	1921.5	1948.2	2242.2	2925.8	4352.9	6614.8	8439.0	8657.1	8139.2	7555.0	4800.8
57.5°	897.4	916.1	1084.5	1507.3	2707.2	5227.8	7875.7	8441.1	8387.7	7608.9	4853.7
60°	476.8	482.1	522.7	652.6	1223.4	3314.9	6776.2	7622.3	8161.1	7683.8	4918.3
62.5°	364.5	366.1	364.0	379.5	514.2	1471.4	5122.0	6266.3	7248.7	7627.6	4846.7
65°	315.9	318.6	303.6	299.8	329.8	524.9	3042.8	4466.7	5696.0	6870.3	4358.7
67.5°	283.3	284.3	266.2	250.7	256.0	283.8	1200.5	2445.3	3770.3	5035.9	3159.3
70°	260.8	259.8	240.0	215.4	208.4	194.0	381.6	896.3	1801.8	2553.8	1469.3
72.5°	230.9	231.4	221.8	189.7	173.2	135.8	176.9	261.4	537.7	695.9	344.2
75°	204.7	202.0	190.3	170.0	142.7	89.3	87.7	116.5	165.7	164.6	74.3
77.5°	148.1	145.4	149.1	139.5	109.6	57.7	43.8	56.1	67.3	65.2	20.8
80°	108.5	106.9	96.2	116.0	96.7	39.6	27.3	29.9	34.7	29.4	6.4
82.5°	74.3	73.8	67.9	64.1	55.1	24.1	17.1	18.7	22.4	16.6	3.2
85°	11.8	13.4	49.2	39.0	32.6	10.7	11.8	12.8	15.0	9.1	1.1
87.5°	0.0	0.0	23.0	20.3	6.4	4.3	6.9	7.5	7.5	4.8	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2549.5	2549.5	2549.5	2549.5	2549.5	2549.5	2549.5	2549.5	2549.5	2549.5	2549.5
2.5°	2559.1	2505.7	2406.8	2304.7	2210.1	2097.3	2019.8	1961.6	1894.2	1876.0	1915.6
5°	2576.8	2475.7	2263.0	2031.6	1814.0	1573.0	1388.6	1242.7	1110.7	1065.8	1106.4
7.5°	2604.6	2454.4	2107.5	1726.4	1348.0	971.7	714.1	544.6	436.7	404.6	421.7
10°	2632.3	2423.4	1927.4	1365.1	847.7	473.0	307.9	245.9	222.9	218.1	220.7
12.5°	2655.3	2381.7	1707.7	970.6	453.2	253.3	201.5	191.3	188.1	188.1	189.2
15°	2669.2	2318.6	1447.4	617.3	260.8	191.3	175.8	172.6	172.6	173.2	174.2
17.5°	2667.6	2238.4	1162.5	373.6	195.1	169.4	160.3	157.7	157.1	158.2	158.7
20°	2647.8	2133.7	876.6	246.4	170.0	154.5	145.4	140.6	140.0	141.1	142.2
22.5°	2610.4	2004.3	627.0	189.7	153.4	140.0	128.8	124.5	124.5	125.6	126.7
25°	2565.0	1846.1	428.7	160.9	138.4	124.5	113.8	110.1	111.2	113.8	114.4
27.5°	2508.3	1668.1	291.3	137.9	120.3	109.0	101.0	98.3	101.0	104.8	105.8
30°	2459.7	1482.7	207.9	119.2	102.1	94.1	89.3	89.3	93.0	99.9	101.6
32.5°	2422.3	1303.1	160.3	105.3	88.7	81.8	79.1	81.8	87.7	94.6	96.2
35°	2417.5	1155.0	135.8	94.1	79.1	72.2	71.1	75.9	81.8	87.1	88.2
37.5°	2454.4	1018.2	122.4	85.0	70.6	64.1	63.1	68.9	74.8	81.2	82.8
40°	2524.4	910.8	112.8	76.4	63.6	56.7	54.5	58.8	66.8	75.4	77.5
42.5°	2615.2	822.0	102.1	67.9	56.7	47.0	44.4	49.2	57.7	66.8	69.5
45°	2701.8	745.6	90.3	58.3	47.6	36.3	35.3	41.7	46.0	55.1	57.2
47.5°	2749.4	678.3	80.2	47.6	36.9	29.4	29.4	31.0	35.3	46.0	48.1
50°	2733.4	624.3	69.5	35.3	25.7	22.4	22.4	21.9	28.3	36.9	38.5
52.5°	2701.3	593.3	59.9	27.3	17.6	16.0	14.4	16.0	19.8	23.5	24.1
55°	2696.5	587.9	50.2	21.9	12.3	10.7	8.0	8.0	8.0	7.5	6.4
57.5°	2733.9	596.5	42.2	17.6	9.1	6.9	4.3	0.0	0.0	0.0	0.0
60°	2772.4	605.6	36.3	12.3	6.4	3.7	0.5	0.0	0.0	0.0	0.0
62.5°	2708.2	585.3	30.5	7.5	4.8	1.6	0.0	0.0	0.0	0.0	0.0
65°	2379.0	498.1	24.1	5.3	3.2	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	1692.2	333.5	16.0	3.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0
70°	772.3	139.5	10.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	165.2	43.3	6.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	33.7	31.5	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	10.7	49.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	6.4	35.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	1.1	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	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)