

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: P299731

Luminaire Tested: **GLNA-AF-07-LED-E1-5MQ-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299731
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-07-LED-E1-5MQ-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25228.9 lumens
Efficiency: N/A
Efficacy: 111.6 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G3

Input Watts (W): 226
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

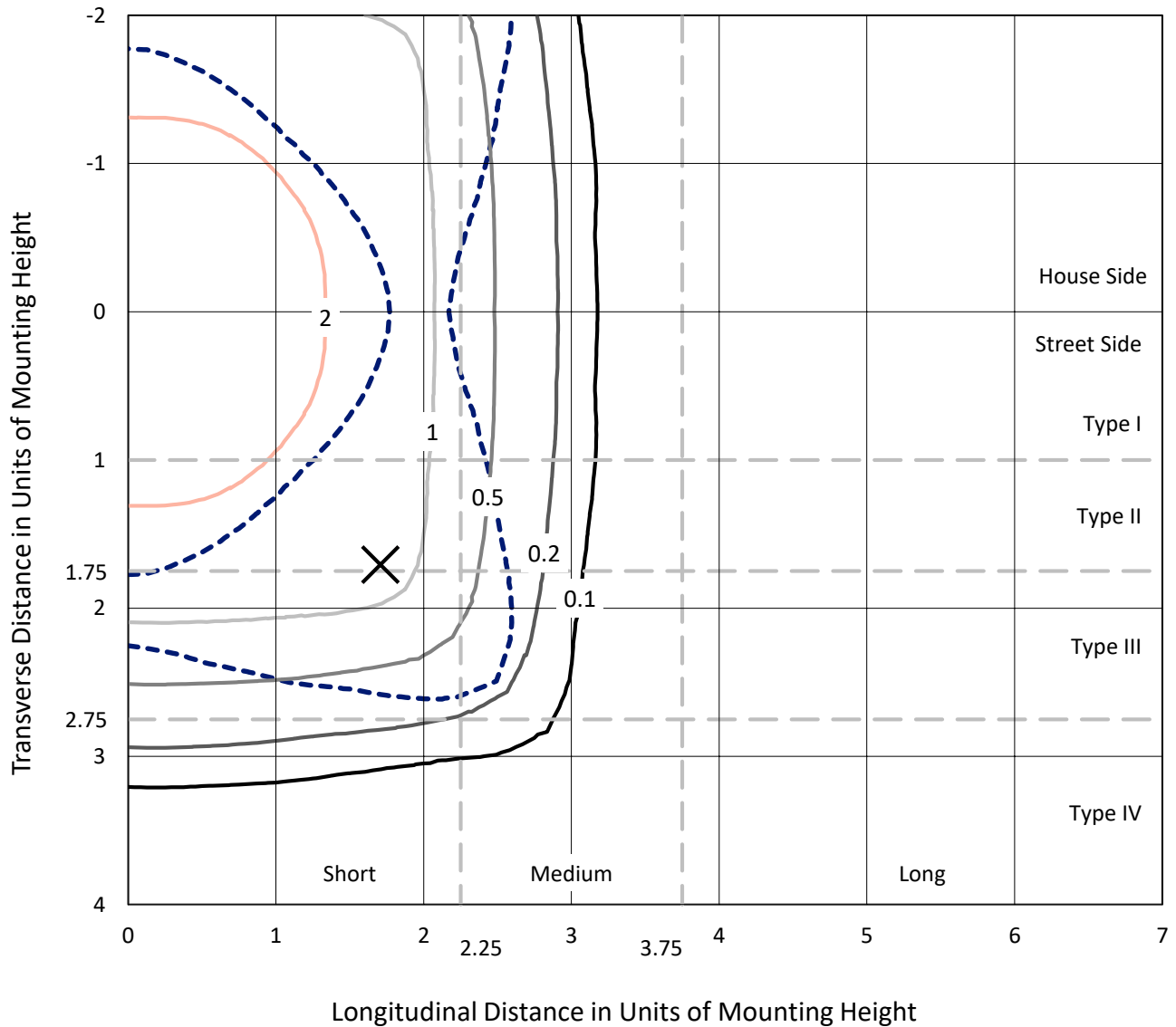


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

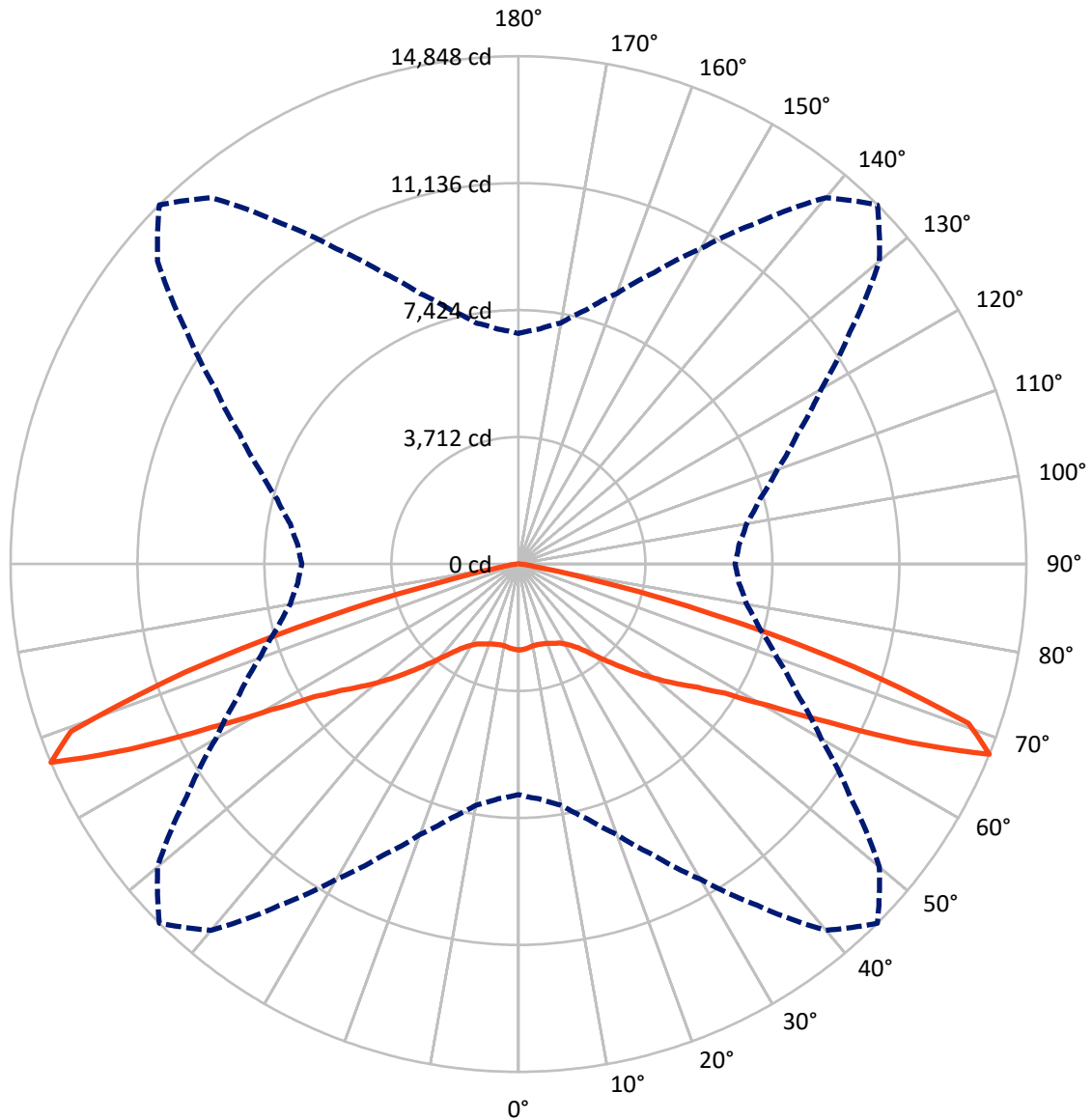


Based on 25 foot mounting height. Maximum calculated value = 4 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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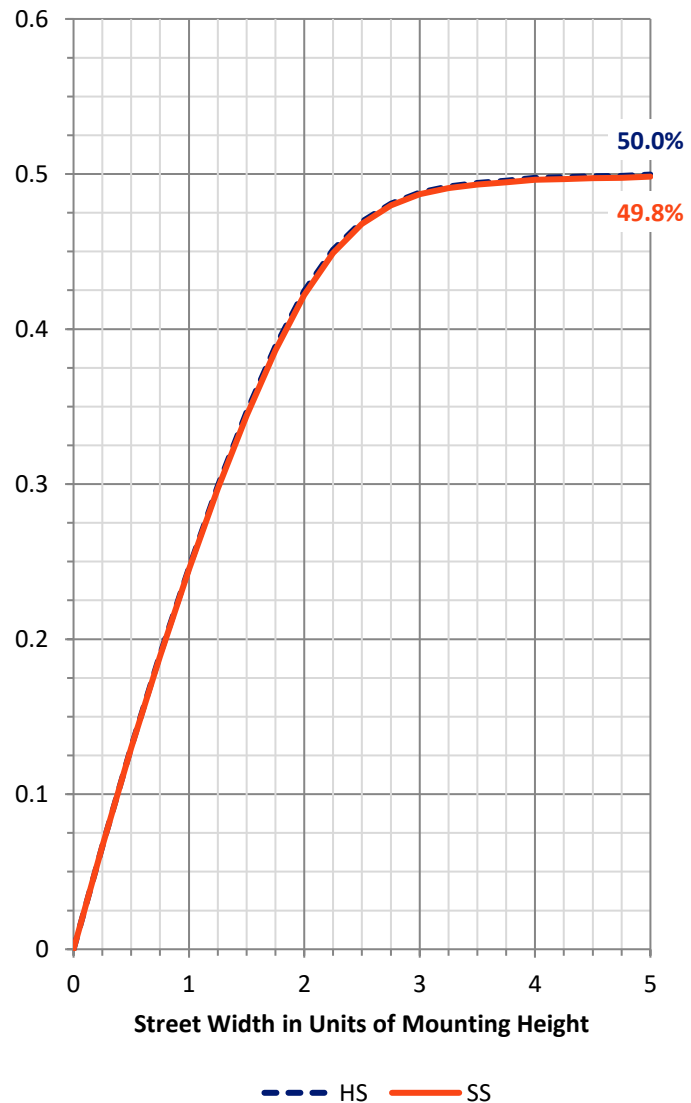
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12614.4	0.0	12614.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	12614.4	0.0	12614.4
	% Fixture	50.0	0.0	50.0
Total	Lumens	25228.9	0.0	25228.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.3	0.9
10°-20°	682.8	2.7
20°-30°	1160.8	4.6
30°-40°	1897.6	7.5
40°-50°	3387.5	13.4
50°-60°	5711.4	22.6
60°-70°	8863.3	35.1
70°-80°	3114.2	12.3
80°-90°	176.0	0.7
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°	25228.9	100.0
0°-180°	25228.9	100.0



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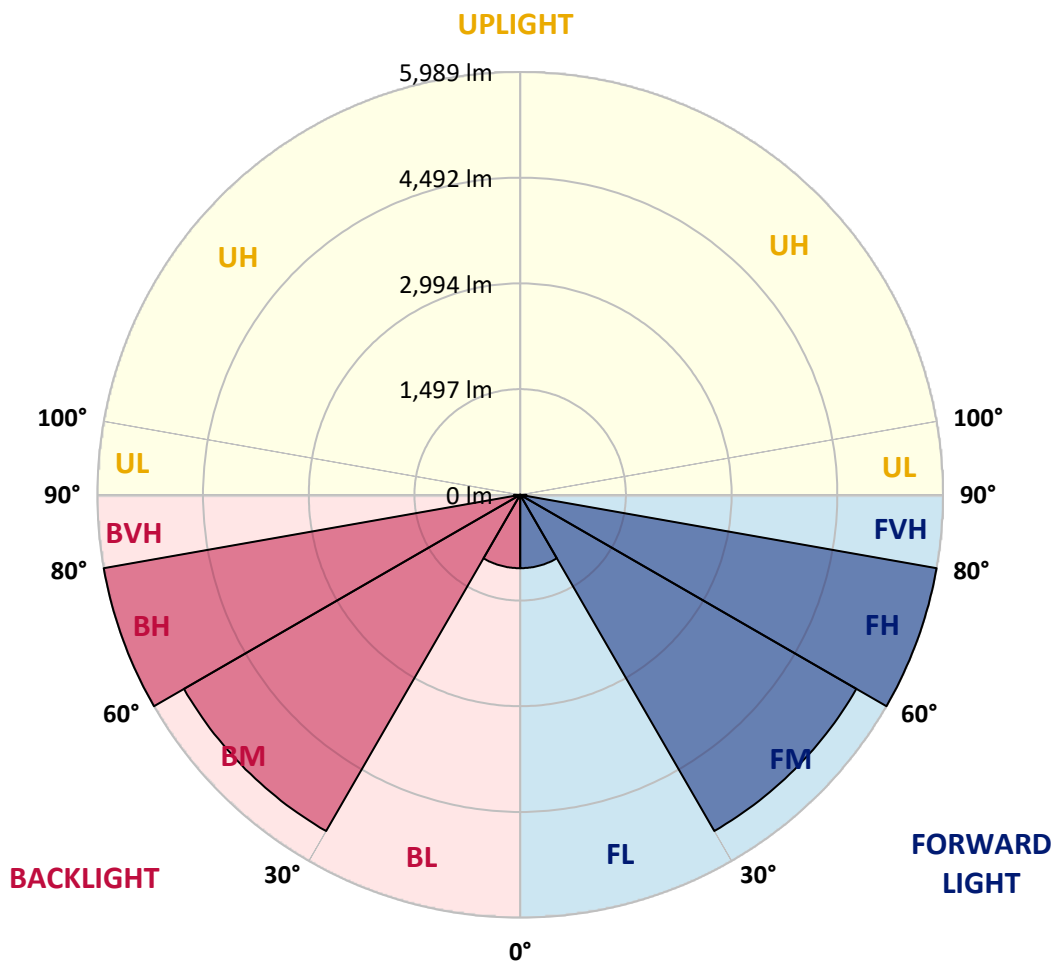
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1039.5	4.1			
FM	(30°-60°)	5498.2	21.8			
FH	(60°-80°)	5988.7	23.7			G3/7500
FVH	(80°-90°)	88.0	0.3			G1/100
BL	(0°-30°)	1039.5	4.1	B3/2500		
BM	(30°-60°)	5498.2	21.8	B4/8500		
BH	(60°-80°)	5988.7	23.7	B5		G3/7500
BVH	(80°-90°)	88.0	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2514.2	2514.2	2514.2	2514.2	2514.2	2514.2	2514.2	2514.2	2514.2	2514.2	2514.2
2.5°	2504.9	2507.2	2507.2	2507.2	2506.0	2506.0	2503.7	2506.0	2504.9	2501.4	2502.6
5°	2484.0	2486.3	2486.3	2485.2	2488.6	2487.5	2484.0	2486.3	2485.2	2482.8	2484.0
7.5°	2453.8	2457.3	2457.3	2456.2	2459.6	2458.5	2456.2	2457.3	2457.3	2453.8	2453.8
10°	2420.2	2422.5	2422.5	2421.3	2427.1	2427.1	2426.0	2429.5	2430.6	2427.1	2424.8
12.5°	2388.9	2392.3	2392.3	2397.0	2402.8	2405.1	2410.9	2415.5	2420.2	2419.0	2414.4
15°	2370.3	2372.6	2377.3	2383.1	2392.3	2400.5	2409.7	2420.2	2429.5	2431.8	2424.8
17.5°	2358.7	2362.2	2369.1	2377.3	2390.0	2403.9	2417.9	2431.8	2444.6	2449.2	2441.1
20°	2355.2	2357.5	2364.5	2378.4	2395.8	2416.7	2436.4	2452.7	2470.1	2475.9	2470.1
22.5°	2362.2	2366.8	2374.9	2391.2	2414.4	2441.1	2464.3	2486.3	2508.4	2518.8	2510.7
25°	2393.5	2398.1	2408.6	2429.5	2455.0	2482.8	2509.5	2535.0	2554.8	2565.2	2559.4
27.5°	2451.5	2457.3	2470.1	2491.0	2518.8	2549.0	2578.0	2598.9	2615.1	2618.6	2611.6
30°	2538.5	2551.3	2566.4	2589.6	2622.1	2647.6	2676.6	2695.2	2714.9	2714.9	2709.1
32.5°	2674.3	2687.0	2703.3	2725.3	2750.8	2778.7	2804.2	2820.5	2841.3	2842.5	2828.6
35°	2877.3	2883.1	2897.0	2911.0	2934.2	2958.5	2980.6	2991.0	3008.4	3009.6	2996.8
37.5°	3145.3	3146.5	3155.8	3160.4	3181.3	3208.0	3228.9	3235.8	3252.1	3249.7	3237.0
40°	3457.4	3463.2	3466.7	3473.7	3495.7	3521.2	3543.3	3546.7	3564.2	3560.7	3544.4
42.5°	3818.2	3820.6	3840.3	3850.7	3871.6	3884.4	3912.2	3915.7	3936.6	3927.3	3908.7
45°	4223.1	4244.0	4262.6	4283.5	4305.5	4320.6	4342.6	4338.0	4351.9	4338.0	4327.6
47.5°	4648.9	4664.0	4705.8	4738.3	4774.2	4787.0	4818.3	4804.4	4818.3	4798.6	4795.1
50°	5117.7	5144.4	5180.3	5217.4	5255.7	5276.6	5317.2	5299.8	5318.4	5299.8	5289.4
52.5°	5579.4	5586.4	5665.3	5719.8	5773.2	5797.5	5821.9	5813.8	5814.9	5813.8	5803.3
55°	6018.0	6034.2	6113.1	6187.4	6280.2	6348.6	6390.4	6385.8	6375.3	6364.9	6347.5
57.5°	6512.2	6528.5	6619.0	6710.6	6816.2	6913.7	6998.4	7085.4	7119.0	7128.3	7090.0
60°	7180.5	7179.4	7300.0	7411.4	7562.2	7707.2	7892.9	8082.0	8298.9	8399.9	8266.5
62.5°	7860.4	7888.2	8062.3	8259.5	8570.4	8873.3	9215.5	9552.0	9895.4	10175.0	9878.0
65°	7779.2	7885.9	8144.6	8591.3	9165.6	9847.8	10585.7	11366.5	12071.9	12556.9	12012.8
67.5°	6742.0	6893.9	7157.3	7700.3	8418.5	9402.3	10641.4	12185.6	13980.5	14848.3	13772.8
70°	4886.8	5058.5	5334.6	5864.8	6576.0	7511.2	8857.0	10711.0	13087.1	13961.9	12777.3
72.5°	2431.8	2524.6	2695.2	3032.8	3571.1	4329.9	5550.4	7332.5	9434.8	10237.7	9155.2
75°	826.1	869.0	898.0	1008.2	1178.8	1476.9	2083.7	3205.6	4890.3	5862.5	4820.7
77.5°	476.8	478.0	497.7	517.5	546.5	578.9	660.2	866.7	1499.0	2129.0	1551.2
80°	308.6	307.5	323.7	338.8	358.5	374.7	379.4	401.4	462.9	548.8	490.8
82.5°	160.1	179.8	215.8	235.5	272.6	279.6	270.3	262.2	277.3	287.7	294.7
85°	88.2	76.6	114.9	148.5	164.7	167.1	167.1	157.8	163.6	160.1	174.0
87.5°	40.6	37.1	45.2	73.1	77.7	66.1	69.6	61.5	44.1	42.9	48.7
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2514.2	2514.2	2514.2	2514.2	2514.2	2514.2	2514.2	2514.2
2.5°	2502.6	2503.7	2503.7	2507.2	2508.4	2510.7	2513.0	2514.2
5°	2482.8	2486.3	2484.0	2487.5	2487.5	2489.8	2489.8	2491.0
7.5°	2453.8	2457.3	2457.3	2457.3	2456.2	2459.6	2459.6	2459.6
10°	2423.7	2426.0	2424.8	2422.5	2420.2	2423.7	2422.5	2421.3
12.5°	2414.4	2408.6	2403.9	2401.6	2397.0	2398.1	2394.7	2394.7
15°	2420.2	2409.7	2401.6	2398.1	2393.5	2391.2	2388.9	2390.0
17.5°	2435.3	2422.5	2412.1	2406.3	2400.5	2397.0	2392.3	2393.5
20°	2462.0	2446.9	2431.8	2420.2	2409.7	2403.9	2400.5	2399.3
22.5°	2501.4	2479.4	2457.3	2439.9	2426.0	2417.9	2414.4	2412.1
25°	2546.7	2522.3	2496.8	2477.0	2463.1	2452.7	2445.7	2445.7
27.5°	2603.5	2583.8	2560.6	2537.4	2524.6	2514.2	2509.5	2507.2
30°	2698.6	2680.1	2661.5	2639.5	2623.2	2612.8	2604.7	2597.7
32.5°	2820.5	2805.4	2790.3	2774.1	2759.0	2745.0	2732.3	2726.5
35°	2992.2	2980.6	2970.1	2951.6	2945.8	2937.6	2930.7	2924.9
37.5°	3228.9	3224.2	3224.2	3204.5	3199.8	3196.4	3189.4	3190.6
40°	3539.8	3544.4	3538.6	3531.7	3528.2	3518.9	3518.9	3527.0
42.5°	3907.6	3911.1	3923.8	3912.2	3925.0	3913.4	3906.4	3912.2
45°	4334.5	4347.3	4372.8	4361.2	4369.3	4349.6	4325.2	4326.4
47.5°	4813.7	4825.3	4835.7	4827.6	4828.8	4796.3	4763.8	4755.7
50°	5311.4	5316.1	5321.9	5310.3	5312.6	5276.6	5239.5	5240.6
52.5°	5803.3	5825.4	5848.6	5817.3	5810.3	5769.7	5717.5	5696.6
55°	6366.0	6397.4	6370.7	6316.2	6261.6	6207.1	6138.6	6127.0
57.5°	7059.9	7006.5	6922.9	6819.7	6744.3	6667.7	6598.1	6569.1
60°	8025.1	7824.4	7673.6	7520.5	7424.2	7330.2	7238.5	7224.6
62.5°	9389.5	9042.6	8742.1	8425.4	8166.7	7964.8	7803.5	7758.3
65°	11099.7	10279.4	9568.2	8904.6	8328.0	7892.9	7619.1	7498.4
67.5°	11835.3	10215.6	8996.2	8054.1	7300.0	6773.3	6477.4	6330.1
70°	10400.1	8471.8	7145.7	6202.5	5515.6	4954.1	4686.1	4528.3
72.5°	7155.0	5389.2	4261.4	3478.3	2929.5	2459.6	2274.0	2260.1
75°	3212.6	2127.8	1466.5	1130.0	951.4	827.2	788.9	759.9
77.5°	899.2	664.8	592.9	554.6	517.5	474.5	458.3	461.8
80°	437.4	413.0	396.8	372.4	338.8	302.8	286.6	293.5
82.5°	290.1	286.6	297.0	279.6	230.9	196.1	164.7	150.8
85°	176.4	178.7	182.2	183.3	155.5	109.1	74.3	83.5
87.5°	69.6	80.1	87.0	90.5	84.7	52.2	41.8	42.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)