

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: P300982

Luminaire Tested: **GLNA-AF-04-LED-E1-SL4-7050-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300982
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-04-LED-E1-SL4-7050-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 5000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14977.7 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G3

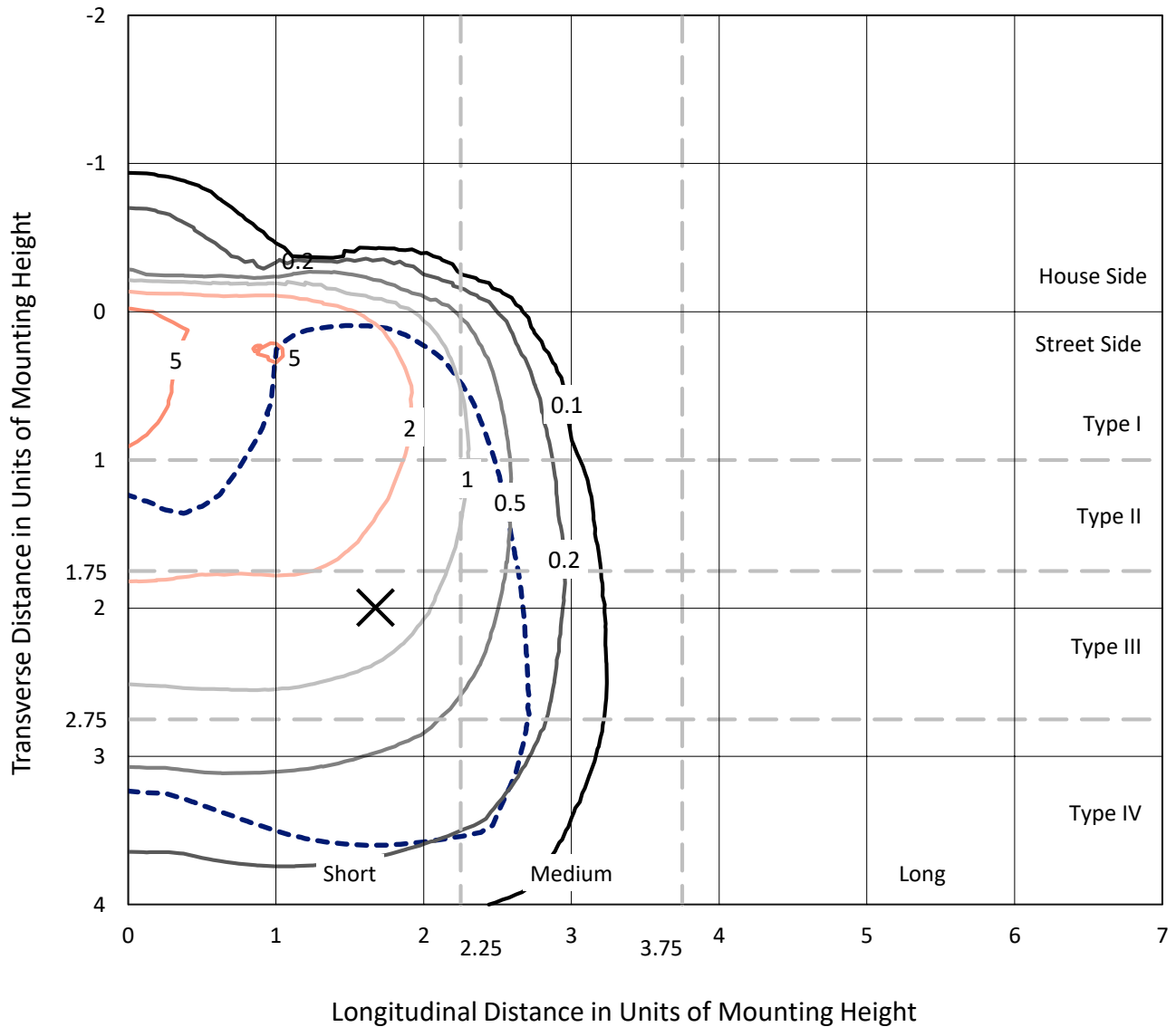
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

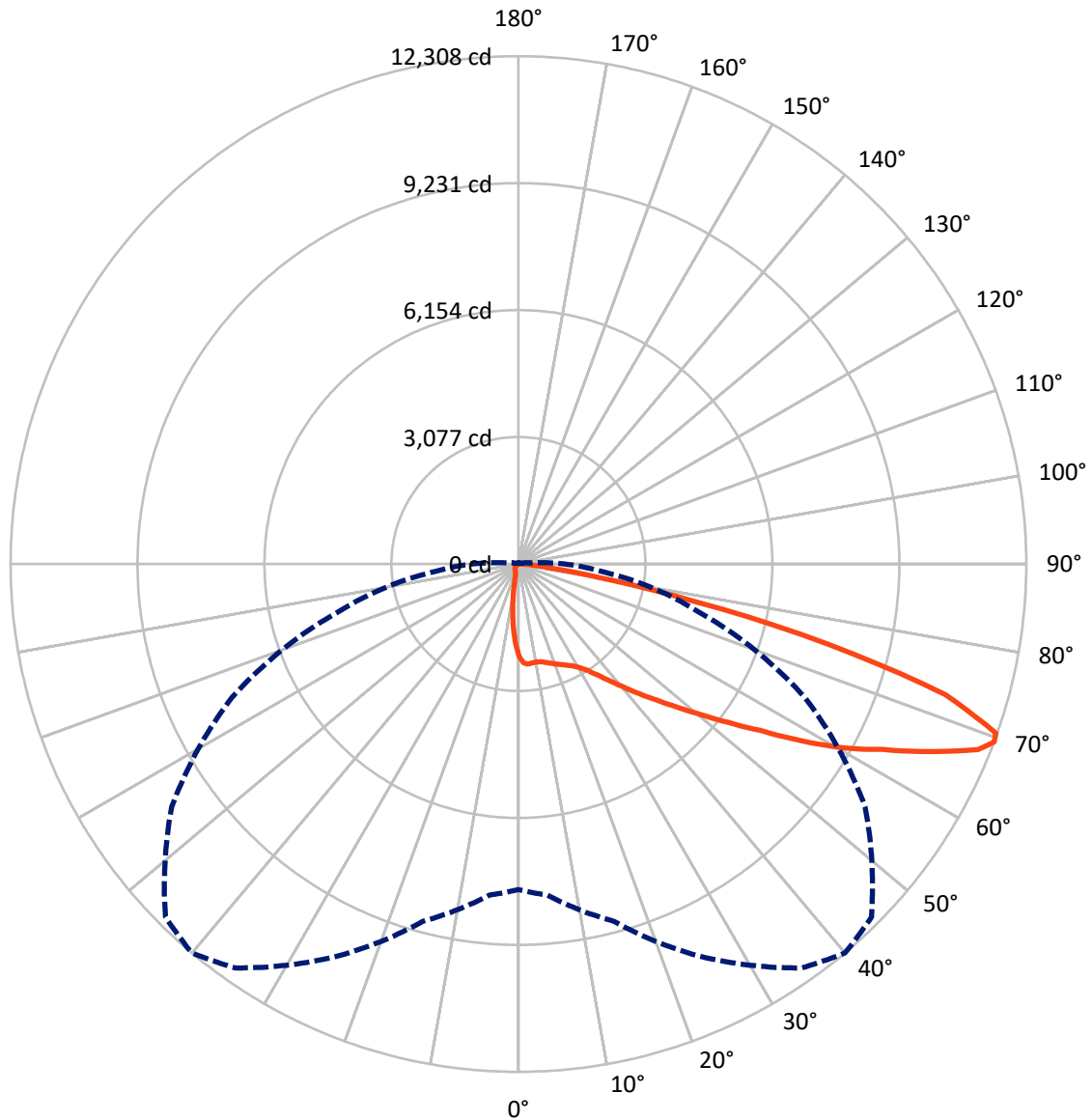


Based on 20 foot mounting height. Maximum calculated value = 6.1 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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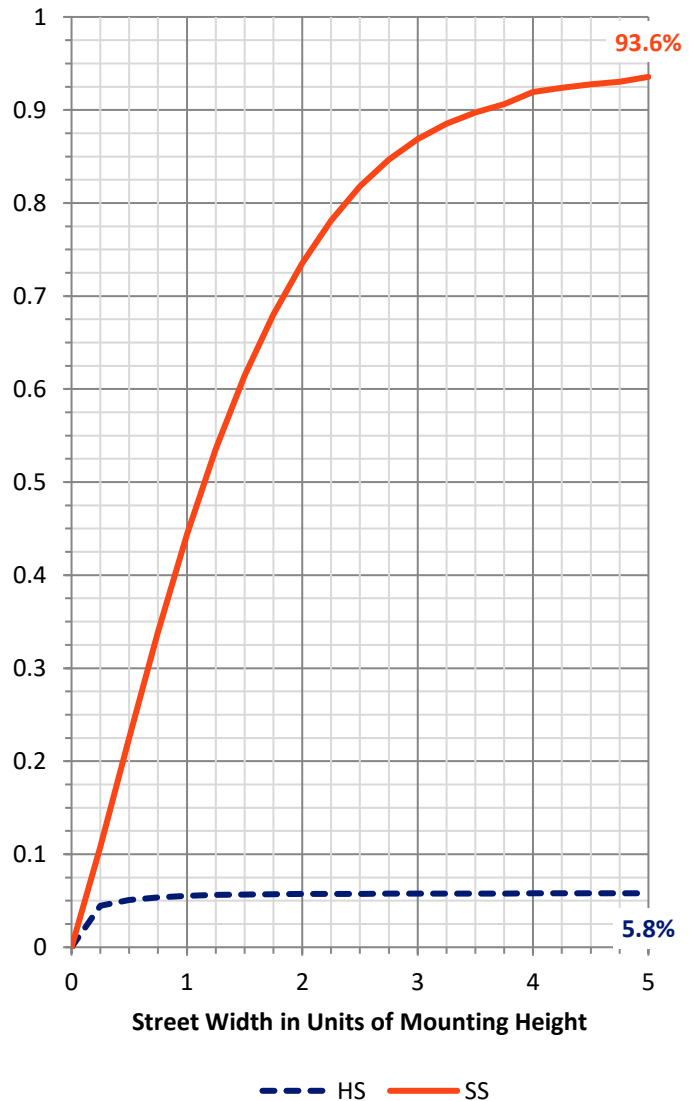
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	876.3	0.0	876.3
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	14101.4	0.0	14101.4
	% Fixture	94.1	0.0	94.1
Total	Lumens	14977.7	0.0	14977.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.4	1.2
10°-20°	446.2	3.0
20°-30°	751.5	5.0
30°-40°	1230.3	8.2
40°-50°	2130.2	14.2
50°-60°	3355.3	22.4
60°-70°	4381.9	29.3
70°-80°	2256.8	15.1
80°-90°	244.1	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°	14977.7	100.0
0°-180°	14977.7	100.0

Coefficient of Utilization



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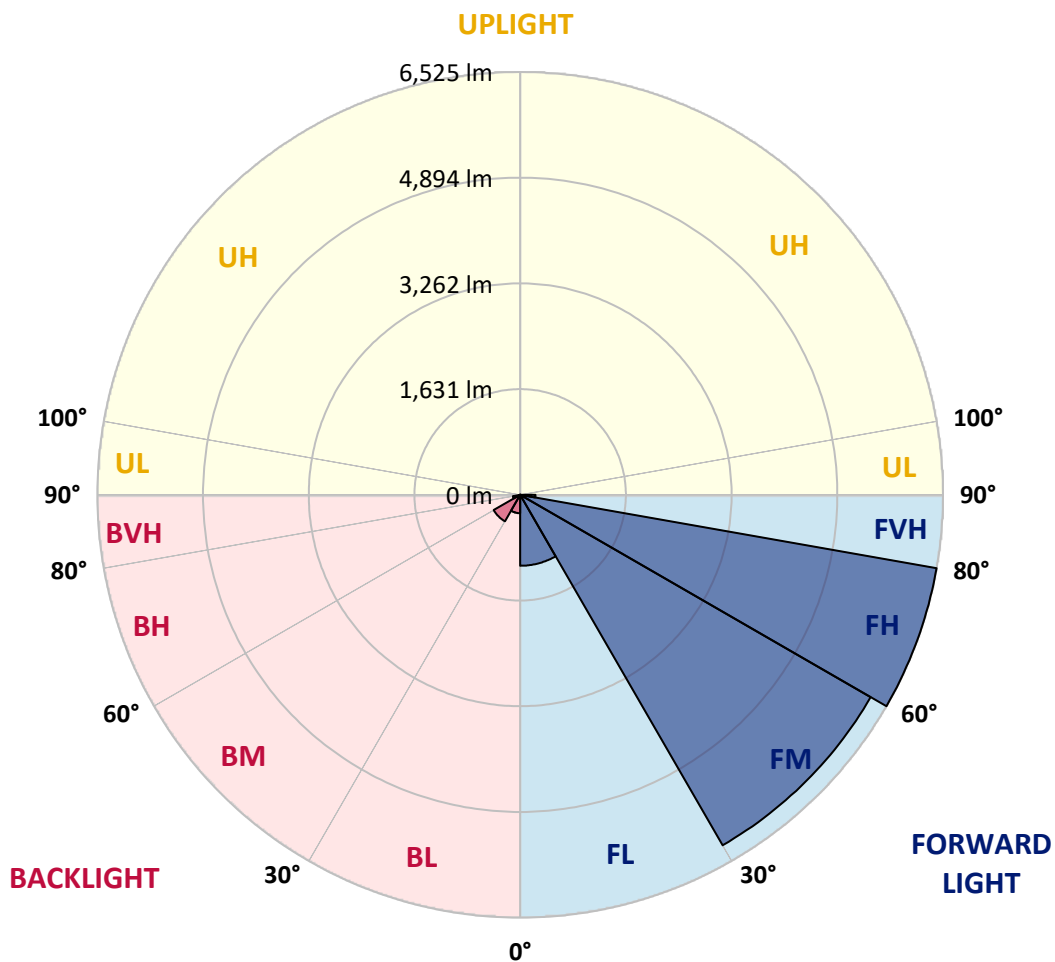
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1095.3	7.3			
FM	(30°-60°)	6244.8	41.7			
FH	(60°-80°)	6524.9	43.6			G3/7500
FVH	(80°-90°)	236.5	1.6			G3/500
BL	(0°-30°)	283.9	1.9	B1/500		
BM	(30°-60°)	471.0	3.1	B1/1000		
BH	(60°-80°)	113.8	0.8	B1/500		G1/500
BVH	(80°-90°)	7.7	0.1			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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	2237.7	2237.7	2237.7	2237.7	2237.7	2237.7	2237.7	2237.7	2237.7	2237.7	2237.7
2.5°	2457.1	2443.7	2435.7	2425.0	2411.6	2400.0	2395.5	2362.6	2331.4	2288.6	2239.5
5°	2502.5	2498.1	2483.8	2469.5	2453.5	2435.7	2425.9	2386.6	2342.1	2279.7	2194.1
7.5°	2507.0	2501.6	2483.8	2464.2	2441.9	2420.5	2403.6	2364.3	2323.3	2260.0	2155.7
10°	2499.9	2493.6	2480.2	2458.8	2431.2	2410.7	2393.8	2356.3	2321.6	2264.5	2148.6
12.5°	2491.8	2485.6	2479.4	2468.7	2444.6	2430.3	2416.1	2380.4	2349.2	2301.0	2174.4
15°	2499.9	2496.3	2503.4	2499.0	2485.6	2473.1	2458.8	2426.8	2398.2	2358.1	2221.7
17.5°	2533.7	2533.7	2556.0	2558.7	2546.2	2528.4	2507.9	2475.8	2451.7	2417.8	2277.9
20°	2613.1	2610.4	2638.9	2644.3	2614.0	2586.3	2556.0	2516.8	2498.1	2476.7	2333.1
22.5°	2749.5	2737.0	2753.9	2748.6	2688.9	2646.1	2608.6	2560.5	2550.7	2540.9	2394.7
25°	2926.9	2919.8	2931.4	2878.8	2773.6	2715.6	2671.0	2616.6	2616.6	2626.5	2464.2
27.5°	3184.6	3157.8	3118.6	3025.9	2868.1	2794.1	2745.9	2688.0	2703.1	2739.7	2556.0
30°	3448.5	3419.0	3329.0	3186.3	2983.1	2905.5	2849.3	2788.7	2824.4	2891.2	2679.1
32.5°	3708.8	3675.8	3548.3	3368.2	3148.0	3070.4	3016.1	2949.2	3008.9	3121.3	2859.1
35°	3961.1	3931.7	3784.6	3572.4	3367.3	3303.1	3253.2	3195.3	3271.9	3428.8	3113.2
37.5°	4244.6	4212.5	4033.3	3803.3	3633.9	3587.5	3551.0	3493.0	3626.8	3856.8	3467.2
40°	4593.2	4538.8	4297.2	4068.1	3942.4	3920.1	3895.1	3887.1	4094.8	4413.1	3938.8
42.5°	4992.6	4903.4	4573.6	4347.1	4281.1	4297.2	4290.9	4326.6	4680.5	5104.9	4512.9
45°	5392.0	5277.0	4881.1	4644.9	4653.8	4710.0	4744.7	4887.4	5414.3	5898.4	5130.8
47.5°	5730.8	5617.6	5176.2	4966.7	5073.7	5184.3	5278.8	5548.9	6168.5	6679.4	5611.3
50°	6020.5	5913.5	5489.2	5320.7	5561.4	5739.7	5893.0	6293.3	6979.8	7274.0	5948.3
52.5°	6257.7	6186.3	5813.7	5726.3	6118.6	6379.8	6604.5	7084.1	7698.4	7757.2	6210.4
55°	6488.6	6437.8	6162.3	6208.6	6773.0	7128.7	7413.1	7923.1	8317.1	8160.2	6461.8
57.5°	6754.3	6707.9	6559.9	6820.2	7633.3	8080.9	8391.1	8666.6	8861.8	8572.1	6699.0
60°	7025.3	6998.5	7002.1	7499.6	8621.1	9050.8	9222.0	9293.3	9396.8	8959.9	6712.4
62.5°	7283.8	7334.6	7507.6	8255.6	9567.0	9896.9	9983.4	10053.8	9932.6	9021.4	6201.5
65°	7721.6	7804.5	8217.3	9267.5	10607.5	10960.5	11049.7	10808.1	10017.3	8226.2	5044.3
67.5°	7935.5	8087.1	8823.5	10210.7	11616.7	12009.0	11976.0	10857.1	8989.3	6272.8	3237.2
69°	7891.0	8052.3	8963.5	10499.6	11951.9	12307.6	12098.1	10257.1	7658.3	4544.1	1987.2
70°	7714.4	7877.6	8891.3	10488.9	11994.7	12276.4	11871.7	9516.2	6475.2	3322.7	1242.8
72.5°	6442.2	6583.1	7893.6	9480.6	11049.7	10820.5	9931.7	6592.9	3155.1	904.9	279.9
75°	3965.5	4044.0	5663.9	7142.1	8345.6	7757.2	6617.0	3280.0	940.6	255.9	155.1
77.5°	2095.1	2130.8	3100.8	4209.8	5290.4	4377.4	3391.4	1279.4	433.3	160.5	112.3
80°	1238.3	1265.1	1669.8	1924.8	2289.5	1912.3	1356.0	785.4	310.3	100.7	99.9
82.5°	708.8	725.7	1210.7	1069.8	902.2	770.3	674.9	744.4	186.3	67.8	103.4
85°	260.3	263.9	681.1	814.0	536.7	319.2	335.2	616.9	49.9	42.8	81.1
87.5°	121.2	118.6	350.4	498.4	313.8	202.4	261.2	135.5	19.6	27.6	22.3
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°	2237.7	2237.7	2237.7	2237.7	2237.7	2237.7	2237.7	2237.7	2237.7	2237.7	2237.7
2.5°	2211.0	2178.0	2118.3	2056.8	1994.4	1946.2	1899.0	1861.5	1849.0	1825.9	1827.6
5°	2143.2	2082.6	1957.8	1831.2	1699.3	1590.5	1488.0	1405.1	1364.9	1323.9	1323.9
7.5°	2084.4	1996.1	1800.9	1595.0	1381.9	1202.7	1041.3	920.1	853.2	799.7	798.8
10°	2062.1	1942.7	1669.8	1374.7	1077.9	833.6	641.9	518.9	455.6	414.6	412.8
12.5°	2071.9	1923.9	1569.1	1171.5	798.8	535.8	371.8	292.4	265.7	253.2	253.2
15°	2100.5	1918.6	1468.4	972.7	564.3	335.2	247.0	225.6	223.8	223.8	223.8
17.5°	2135.2	1920.4	1364.9	779.2	384.3	239.8	213.1	210.4	212.2	212.2	212.2
20°	2170.9	1921.3	1253.5	600.0	271.0	208.6	200.6	199.7	201.5	201.5	202.4
22.5°	2214.6	1925.7	1142.1	448.4	223.8	197.0	190.8	190.8	191.7	191.7	190.8
25°	2264.5	1934.6	1026.2	332.5	204.2	189.0	183.7	182.8	183.7	182.8	181.9
27.5°	2326.9	1947.1	896.9	260.3	195.2	181.0	176.5	176.5	175.6	174.7	173.8
30°	2405.4	1961.4	751.6	221.1	186.3	173.8	169.4	168.5	167.6	165.8	165.8
32.5°	2524.8	1992.6	608.0	200.6	176.5	164.0	160.5	160.5	158.7	156.9	156.0
35°	2708.5	2054.1	479.6	188.1	165.8	153.3	148.9	148.9	147.1	146.2	145.3
37.5°	2962.6	2147.7	372.7	176.5	155.1	141.8	137.3	136.4	134.6	132.8	131.9
40°	3300.5	2263.6	293.3	165.8	144.4	130.2	126.6	124.8	121.2	118.6	118.6
42.5°	3724.8	2395.5	238.0	154.2	131.9	119.5	116.8	114.1	107.9	105.2	104.3
45°	4168.8	2514.1	201.5	140.9	119.5	108.8	107.0	102.5	94.5	91.8	91.8
47.5°	4488.9	2541.8	177.4	128.4	107.9	97.2	96.3	88.3	81.1	79.3	78.5
50°	4688.6	2487.4	157.8	115.9	97.2	86.5	83.8	74.0	69.5	67.8	66.9
52.5°	4823.2	2390.2	141.8	105.2	87.4	76.7	70.4	63.3	59.7	57.9	57.9
55°	4931.1	2252.9	125.7	95.4	79.3	68.6	59.7	54.4	50.8	49.0	49.0
57.5°	4961.4	2066.6	109.7	87.4	71.3	60.6	50.8	47.3	42.8	41.9	41.9
60°	4741.2	1730.5	97.2	77.6	64.2	52.6	44.6	40.1	35.7	34.8	33.9
62.5°	4160.8	1339.1	85.6	68.6	56.2	45.5	38.3	33.0	29.4	29.4	29.4
65°	3173.9	897.8	74.9	59.7	49.0	38.3	33.0	26.7	25.0	25.0	25.9
67.5°	1899.9	488.6	64.2	50.8	41.9	32.1	27.6	23.2	22.3	23.2	23.2
69°	1113.5	287.1	57.9	45.5	36.6	28.5	24.1	20.5	22.3	23.2	23.2
70°	687.4	193.5	53.5	41.0	33.0	25.9	22.3	19.6	21.4	22.3	22.3
72.5°	191.7	99.9	42.8	32.1	26.7	21.4	17.8	17.8	20.5	21.4	21.4
75°	124.8	74.0	33.0	24.1	20.5	16.9	15.2	16.9	19.6	20.5	20.5
77.5°	103.4	60.6	26.7	19.6	16.9	16.0	14.3	15.2	17.8	18.7	18.7
80°	94.5	42.8	21.4	17.8	15.2	14.3	13.4	12.5	16.0	16.9	16.9
82.5°	90.0	33.9	18.7	16.0	14.3	12.5	11.6	12.5	14.3	15.2	16.0
85°	56.2	22.3	16.9	15.2	12.5	11.6	11.6	11.6	13.4	14.3	14.3
87.5°	20.5	17.8	15.2	12.5	10.7	10.7	10.7	10.7	11.6	13.4	13.4
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)