

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: P453609

Luminaire Tested: **GALN-SA4C-827-U-T4FT**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453609
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-28)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4C-827-U-T4FT
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20400 lumens
Efficiency: N/A
Efficacy: 95.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

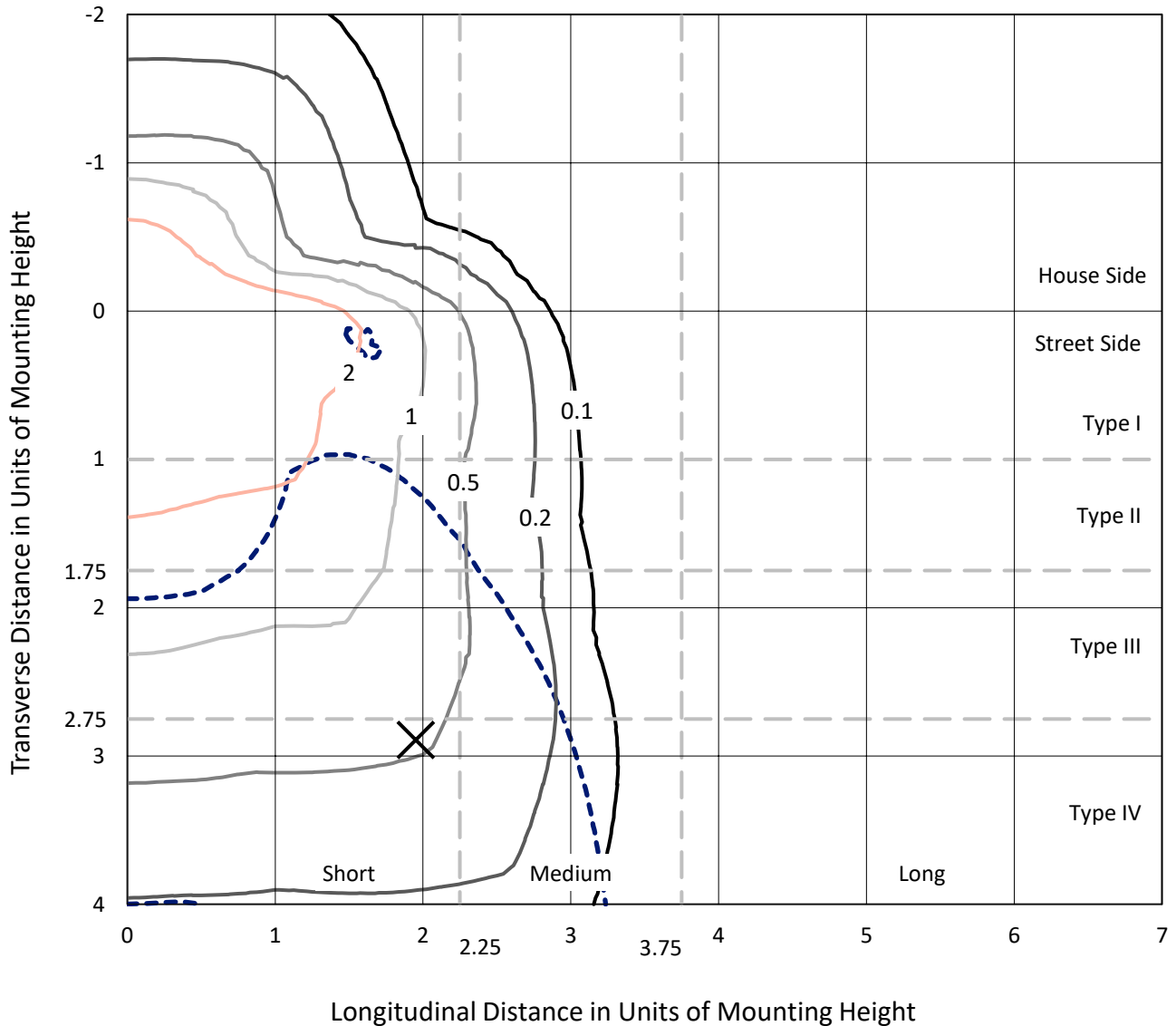
Input Watts (W): 213
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

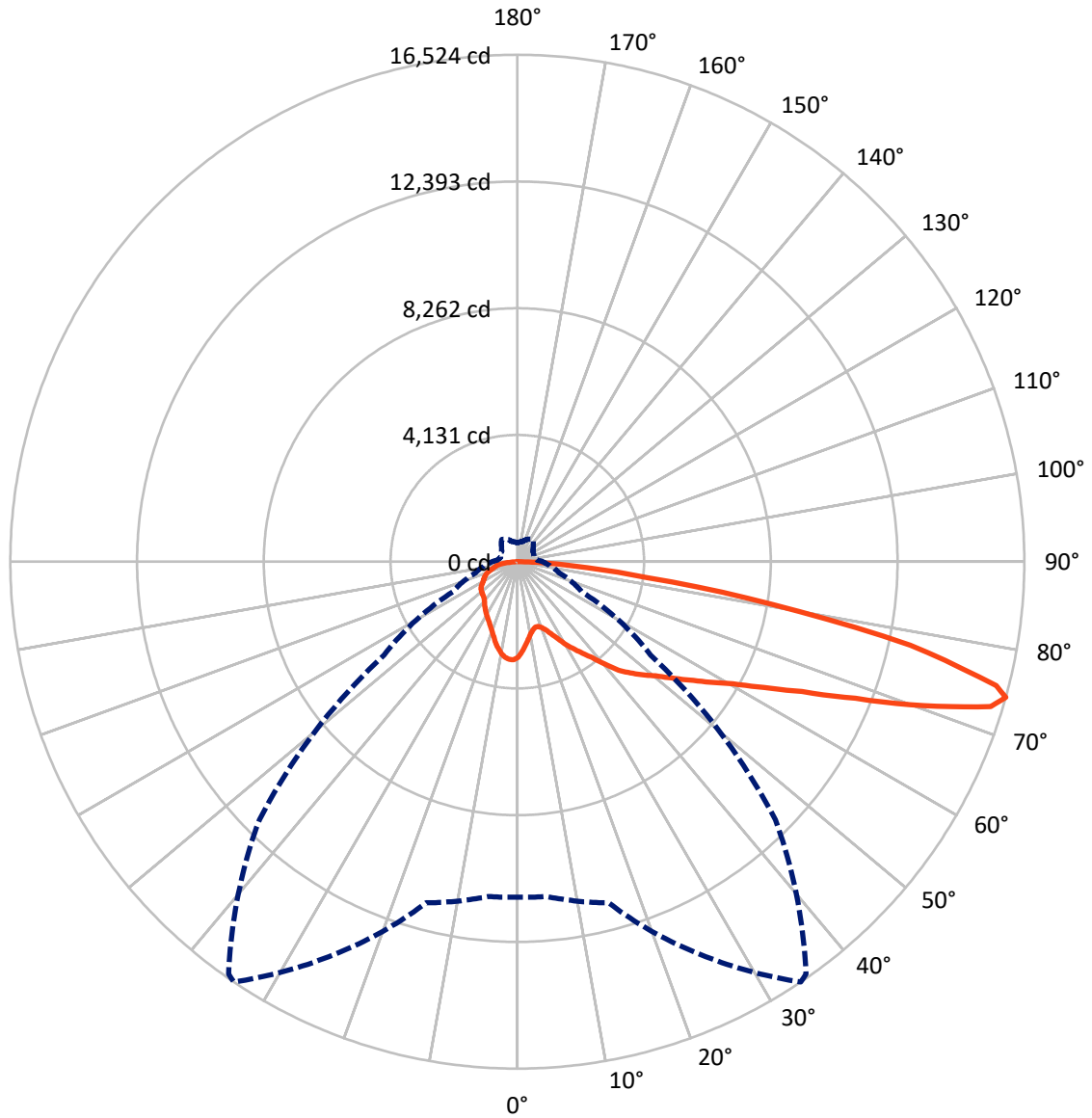
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 34-Deg Lateral - - - Horizontal Cone Through 74-Deg Vertical

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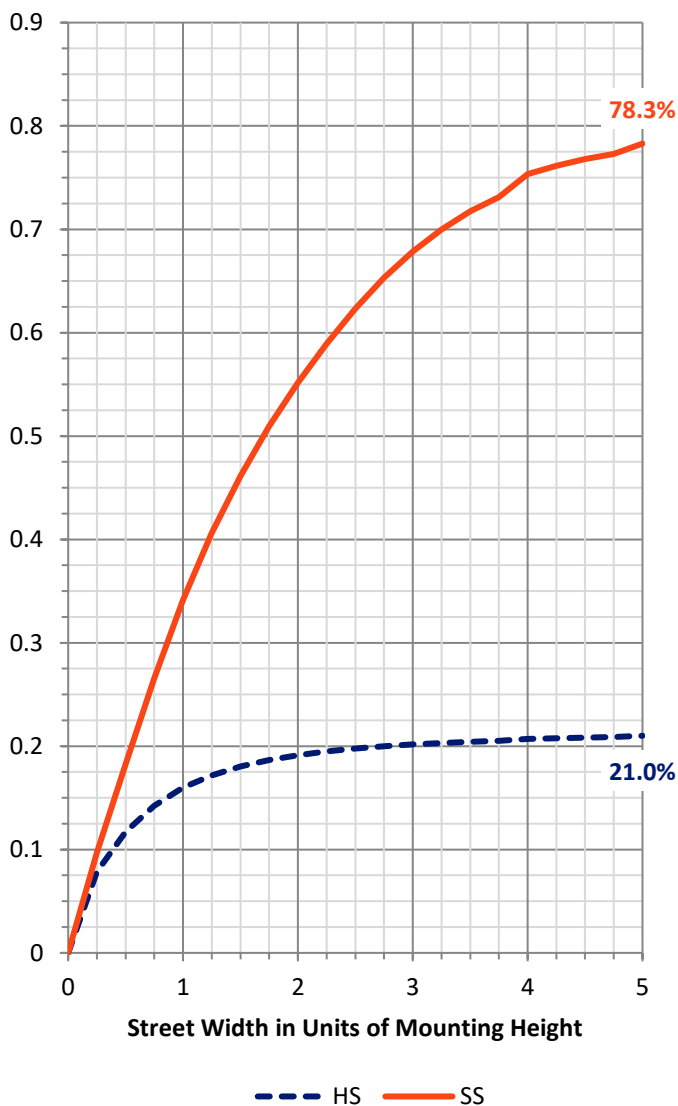
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4341.3	0.0	4341.3
	% Fixture	21.3	0.0	21.3
Street Side	Lumens	16058.7	0.0	16058.7
	% Fixture	78.7	0.0	78.7
Total	Lumens	20400.0	0.0	20400.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	283.3	1.4
10°-20°	775.4	3.8
20°-30°	1278.5	6.3
30°-40°	1915.0	9.4
40°-50°	2783.9	13.6
50°-60°	3888.5	19.1
60°-70°	4868.2	23.9
70°-80°	4025.6	19.7
80°-90°	581.7	2.9
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°	20400.0	100.0
0°-180°	20400.0	100.0

Coefficient of Utilization



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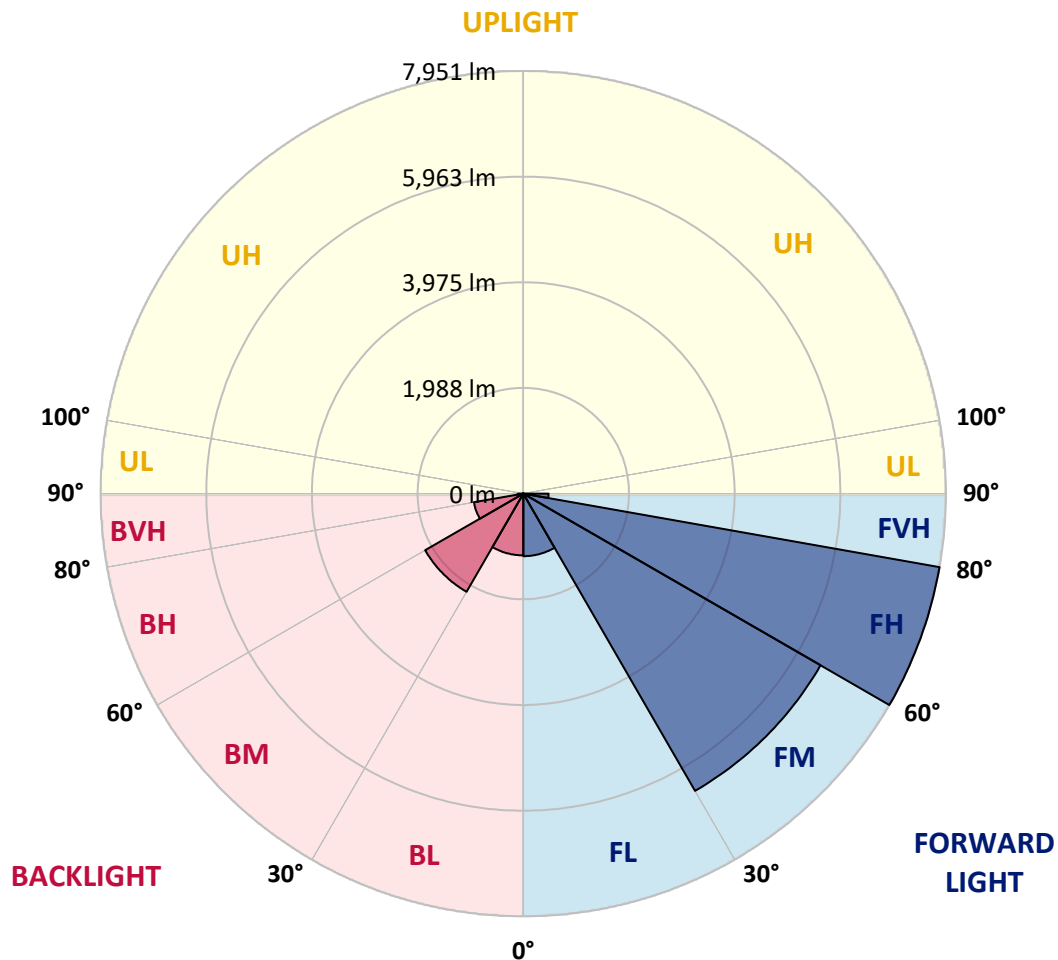
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1176.0	5.8			
FM	(30°-60°)	6455.4	31.6			
FH	(60°-80°)	7950.8	39.0			G4/12000
FVH	(80°-90°)	476.5	2.3			G3/500
BL	(0°-30°)	1161.2	5.7	B3/2500		
BM	(30°-60°)	2132.0	10.5	B2/2500		
BH	(60°-80°)	942.9	4.6	B2/1000		G2/1000
BVH	(80°-90°)	105.1	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	3114.7	3114.7	3114.7	3114.7	3114.7	3114.7	3114.7	3114.7	3114.7	3114.7	3114.7
2.5°	2878.5	2893.2	2901.1	2929.3	2936.1	2945.2	2968.9	3000.5	3041.2	3077.4	3109.0
5°	2638.9	2661.5	2675.1	2699.9	2748.5	2753.0	2816.3	2888.6	2971.1	3048.0	3111.3
7.5°	2411.7	2436.6	2447.9	2493.1	2557.5	2567.7	2660.4	2774.5	2912.4	3028.8	3126.0
10°	2241.1	2253.5	2278.4	2312.3	2389.1	2395.9	2516.8	2669.4	2848.0	3019.7	3150.8
12.5°	2148.4	2155.2	2160.8	2197.0	2272.7	2282.9	2409.5	2582.4	2797.1	3026.5	3191.5
15°	2162.0	2164.2	2139.4	2146.1	2207.2	2221.9	2347.3	2524.7	2765.5	3043.5	3252.6
17.5°	2276.1	2268.2	2207.2	2175.5	2218.5	2225.3	2334.9	2502.1	2750.8	3075.1	3315.8
20°	2455.8	2444.5	2339.4	2269.3	2294.2	2299.8	2375.6	2519.1	2765.5	3127.1	3414.2
22.5°	2679.6	2675.1	2515.7	2430.9	2429.8	2429.8	2469.4	2580.1	2809.5	3198.3	3517.0
25°	2992.6	2968.9	2760.9	2651.3	2620.8	2618.5	2614.0	2680.7	2866.0	3274.0	3639.1
27.5°	3313.6	3272.9	3087.6	2919.2	2853.6	2845.7	2816.3	2823.1	2938.4	3359.9	3778.1
30°	3601.8	3575.8	3401.7	3215.3	3137.3	3119.2	3037.8	3000.5	3059.3	3514.7	3999.6
32.5°	3822.1	3806.3	3670.7	3501.2	3385.9	3382.5	3263.9	3233.3	3248.0	3702.4	4252.7
35°	4000.7	4006.4	3937.4	3790.5	3658.3	3639.1	3560.0	3521.5	3478.6	3973.6	4571.4
37.5°	4244.8	4257.3	4252.7	4126.2	3964.5	3969.1	3951.0	3887.7	3773.6	4276.5	4925.2
40°	4513.8	4522.8	4521.7	4473.1	4388.3	4392.9	4386.1	4313.8	4143.1	4661.8	5318.5
42.5°	4885.6	4842.7	4730.8	4779.4	4829.1	4850.6	4896.9	4828.0	4594.0	5073.2	5688.0
45°	5301.5	5220.1	4967.0	4989.6	5173.8	5214.5	5469.9	5375.0	5083.4	5545.6	6123.1
47.5°	5563.7	5483.5	5269.9	5265.3	5509.5	5549.0	6001.1	5966.0	5528.7	6055.3	6654.3
50°	5797.6	5786.3	5545.6	5603.3	5841.7	5900.5	6579.7	6546.9	5972.8	6656.5	7232.9
52.5°	6144.6	6053.1	5860.9	5979.6	6294.9	6371.8	7153.8	7057.7	6380.8	7187.7	7794.6
55°	6300.6	6279.1	6267.8	6370.6	6803.5	6858.8	7712.1	7491.7	6728.9	7637.5	8221.8
57.5°	6717.6	6678.0	6789.9	6860.0	7402.4	7487.2	8295.3	7944.9	7034.0	7994.6	8429.7
60°	7257.8	7236.3	7339.2	7465.7	8071.5	8200.3	8959.8	8331.4	7279.3	8174.3	8315.6
62.5°	8064.7	8062.4	8043.2	8314.5	9019.7	9138.3	9722.6	8707.8	7317.7	8039.8	7725.7
65°	9222.0	9181.3	9014.0	9310.1	10199.5	10338.6	10517.1	8918.0	7086.0	7349.3	6505.1
67.5°	10432.4	10430.1	10294.5	10678.7	11893.6	12037.2	11510.5	8871.6	6443.0	5953.6	4620.0
70°	11435.9	11387.3	11560.2	12584.2	14057.9	14224.0	12379.6	8325.8	5132.0	3931.8	2745.1
72.5°	11676.6	11678.9	12038.3	14053.3	16136.2	16162.2	12692.6	6748.1	3434.5	2168.7	1373.1
74°	10935.3	10954.5	11511.6	14126.8	16523.8	16406.3	11892.5	5303.8	2322.4	1416.1	990.0
75°	9981.4	9860.5	10666.3	13637.4	16121.5	15994.9	10955.6	4256.1	1772.1	1131.3	866.8
77.5°	5336.5	5459.7	6702.9	10176.9	13097.2	12951.4	7428.4	2041.0	957.2	787.7	623.8
80°	1899.8	2095.3	2945.2	5325.2	8397.0	8442.2	3545.3	935.8	673.6	580.9	440.8
82.5°	775.3	796.8	1264.6	2363.1	4264.0	4304.7	1447.7	556.0	481.4	400.1	263.3
85°	302.9	311.9	559.4	1062.3	1819.5	1938.2	500.7	293.8	296.1	229.4	134.5
87.5°	101.7	115.3	229.4	353.7	618.2	605.8	145.8	87.0	106.2	99.5	41.8
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°	3114.7	3114.7	3114.7	3114.7	3114.7	3114.7	3114.7	3114.7	3114.7	3114.7	3114.7
2.5°	3124.8	3146.3	3161.0	3176.8	3191.5	3196.0	3192.7	3202.8	3204.0	3205.1	3206.2
5°	3142.9	3172.3	3200.6	3216.4	3223.2	3217.5	3198.3	3188.1	3179.1	3172.3	3174.6
7.5°	3167.8	3209.6	3235.6	3242.4	3224.3	3198.3	3150.8	3113.5	3089.8	3074.0	3072.9
10°	3206.2	3246.9	3268.4	3249.2	3199.4	3136.1	3061.6	2991.5	2938.4	2922.6	2921.4
12.5°	3254.8	3301.2	3300.0	3243.5	3156.5	3043.5	2922.6	2841.2	2768.9	2732.7	2747.4
15°	3318.1	3353.1	3320.4	3218.6	3080.8	2925.9	2776.8	2666.0	2584.6	2546.2	2548.5
17.5°	3391.6	3422.1	3335.1	3174.6	2974.5	2775.6	2602.7	2497.6	2433.2	2404.9	2402.7
20°	3483.1	3492.1	3335.1	3097.7	2837.8	2600.5	2435.5	2362.0	2325.8	2311.1	2315.7
22.5°	3581.4	3563.3	3317.0	2989.2	2658.1	2417.4	2306.6	2273.8	2255.8	2253.5	2255.8
25°	3692.2	3641.3	3279.7	2842.3	2470.5	2259.2	2194.7	2200.4	2203.8	2203.8	2211.7
27.5°	3827.8	3726.1	3217.5	2657.0	2251.2	2112.2	2094.2	2133.7	2151.8	2155.2	2160.8
30°	4006.4	3818.8	3114.7	2425.3	2064.8	1980.0	2011.7	2064.8	2085.1	2097.5	2095.3
32.5°	4218.8	3920.5	2975.7	2193.6	1914.5	1887.3	1925.8	1980.0	2002.6	2009.4	2000.4
35°	4468.6	4035.7	2792.6	1976.6	1783.4	1799.2	1844.4	1861.3	1881.7	1881.7	1886.2
37.5°	4737.6	4128.4	2568.8	1777.7	1681.7	1739.3	1772.1	1756.2	1747.2	1735.9	1741.6
40°	5011.1	4197.4	2278.4	1581.1	1579.9	1677.1	1686.2	1641.0	1604.8	1593.5	1587.9
42.5°	5249.5	4240.3	2016.2	1428.5	1483.9	1616.1	1622.9	1550.6	1492.9	1459.0	1447.7
45°	5530.9	4290.0	1759.6	1301.9	1394.6	1567.5	1584.5	1487.3	1402.5	1331.3	1313.2
47.5°	5916.3	4403.0	1557.3	1203.6	1330.2	1537.0	1560.7	1435.3	1323.4	1230.7	1216.0
50°	6351.4	4557.9	1400.2	1136.9	1280.5	1509.9	1539.3	1382.2	1249.9	1147.1	1135.8
52.5°	6750.3	4641.5	1264.6	1077.0	1231.9	1460.1	1511.0	1343.7	1177.6	1063.5	1053.3
55°	6968.5	4505.9	1131.3	1018.3	1165.2	1395.7	1471.4	1290.6	1107.5	1019.4	1004.7
57.5°	6997.9	4225.6	1010.3	955.0	1095.1	1316.6	1398.0	1226.2	1062.3	988.9	976.4
60°	6770.7	3807.5	916.5	903.0	1023.9	1227.3	1315.5	1169.7	1016.0	955.0	942.5
62.5°	6205.6	3353.1	851.0	855.5	951.6	1133.5	1254.5	1115.5	971.9	917.7	906.4
65°	5233.7	2767.7	787.7	806.9	887.2	1060.1	1199.1	1070.2	927.8	889.4	879.3
67.5°	3635.7	1998.1	735.7	756.1	826.1	985.5	1134.7	1021.7	878.1	857.8	842.0
70°	2012.8	1229.6	674.7	698.4	762.8	901.9	1062.3	948.2	805.8	796.8	774.1
72.5°	1057.8	783.2	605.8	631.8	677.0	794.5	951.6	868.0	734.6	696.2	666.8
74°	826.1	641.9	559.4	586.5	617.1	731.2	886.0	810.3	683.7	638.5	615.9
75°	719.9	571.9	519.9	554.9	582.0	688.3	835.2	769.6	655.5	612.5	592.2
77.5°	508.6	428.3	424.9	466.7	481.4	603.5	752.7	700.7	584.3	539.1	519.9
80°	357.1	321.0	336.8	362.8	383.1	533.4	698.4	605.8	479.2	426.1	419.3
82.5°	232.8	210.2	240.7	264.5	271.2	393.3	563.9	460.0	349.2	283.7	263.3
85°	107.4	105.1	137.9	134.5	133.4	192.1	334.5	269.0	201.2	150.3	141.3
87.5°	27.1	26.0	33.9	28.3	33.9	29.4	30.5	7.9	1.1	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)