

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: P651360

Luminaire Tested: **GALN-SA4D-840-U-T2-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P651360  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GALN-SA4D-840-U-T2-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19239.6 lumens  
Efficiency: N/A  
Efficacy: 78.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G3

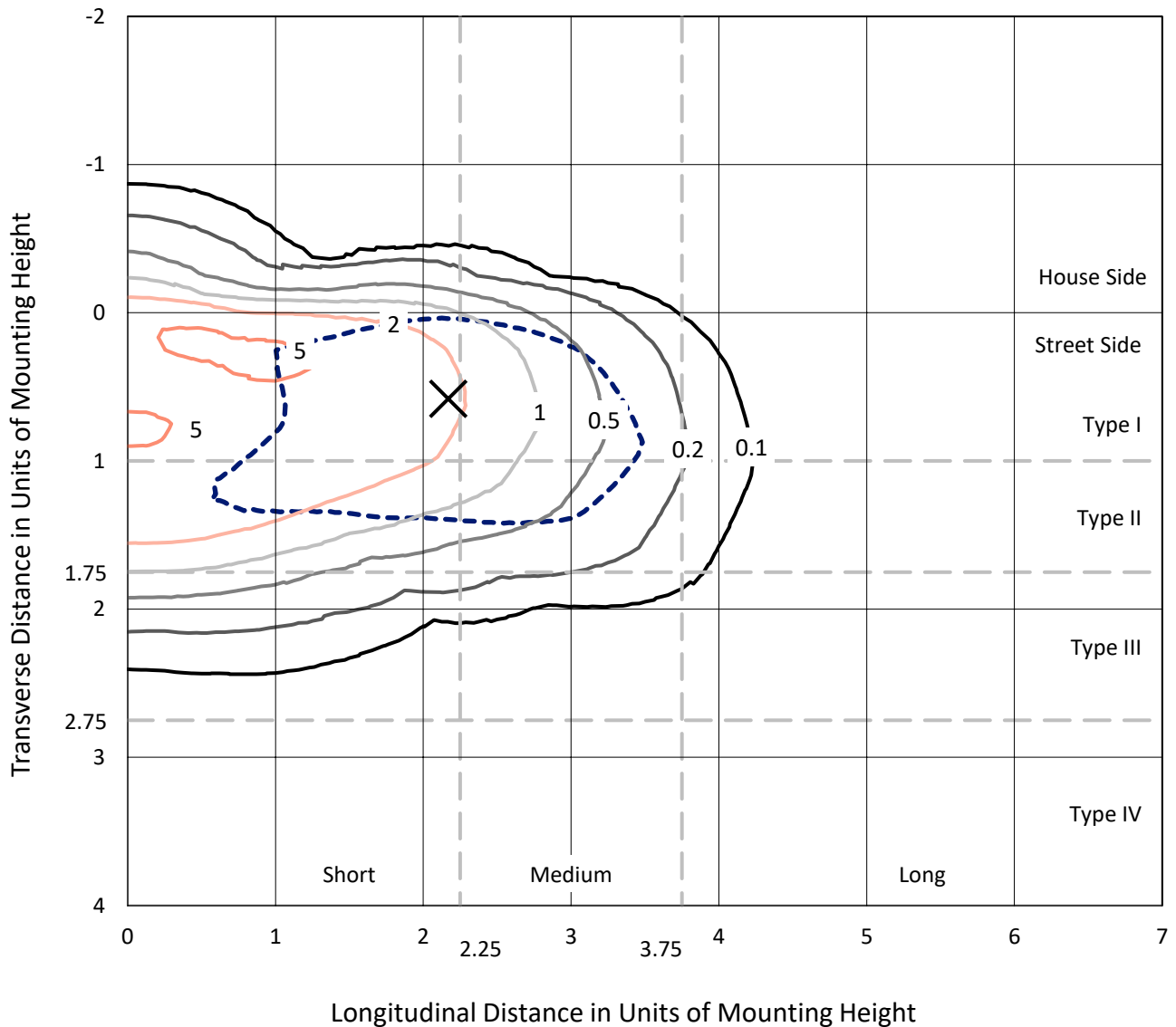
Input Watts (W): 245  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

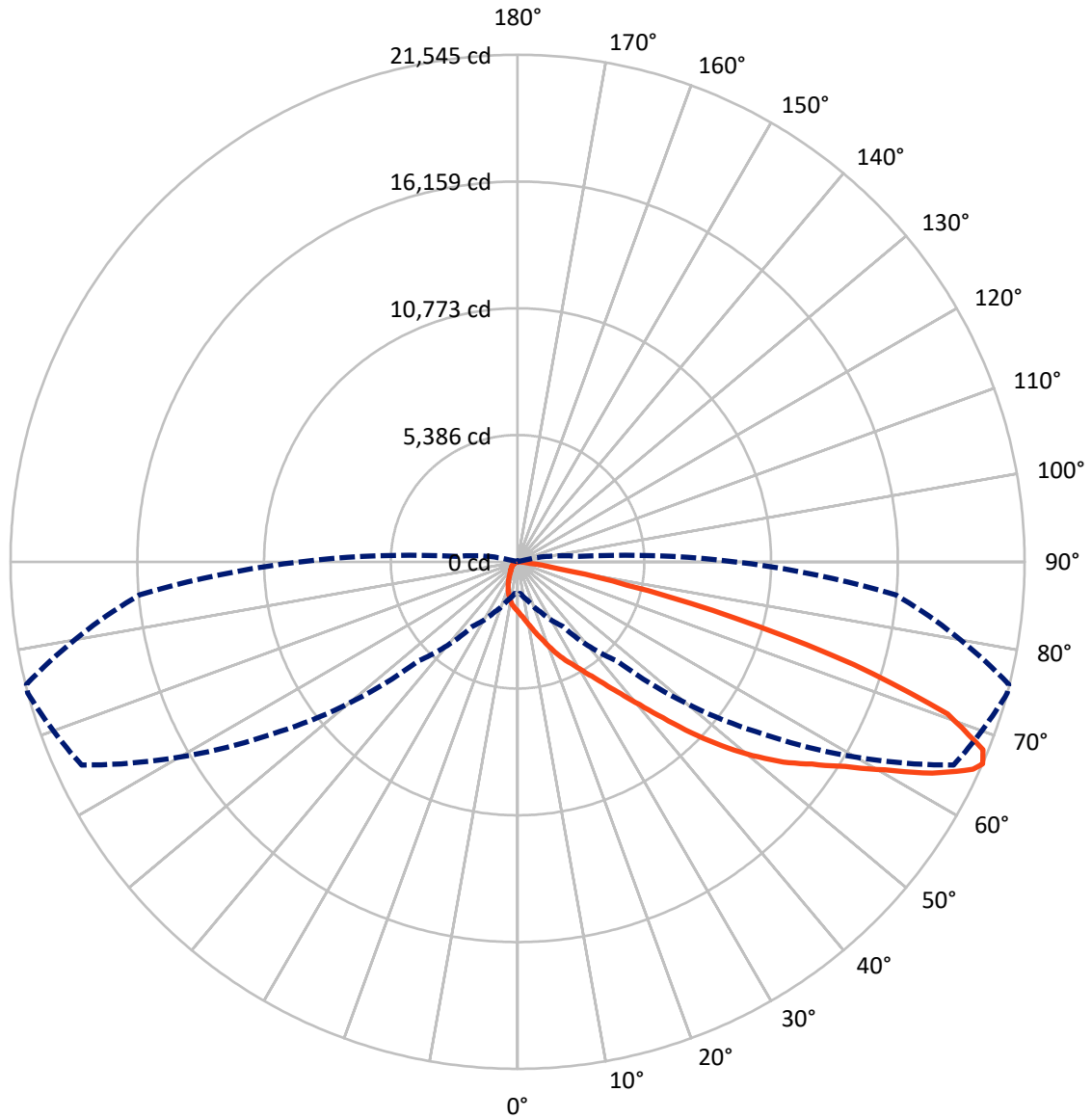
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral      - - - Horizontal Cone Through 66-Deg Vertical

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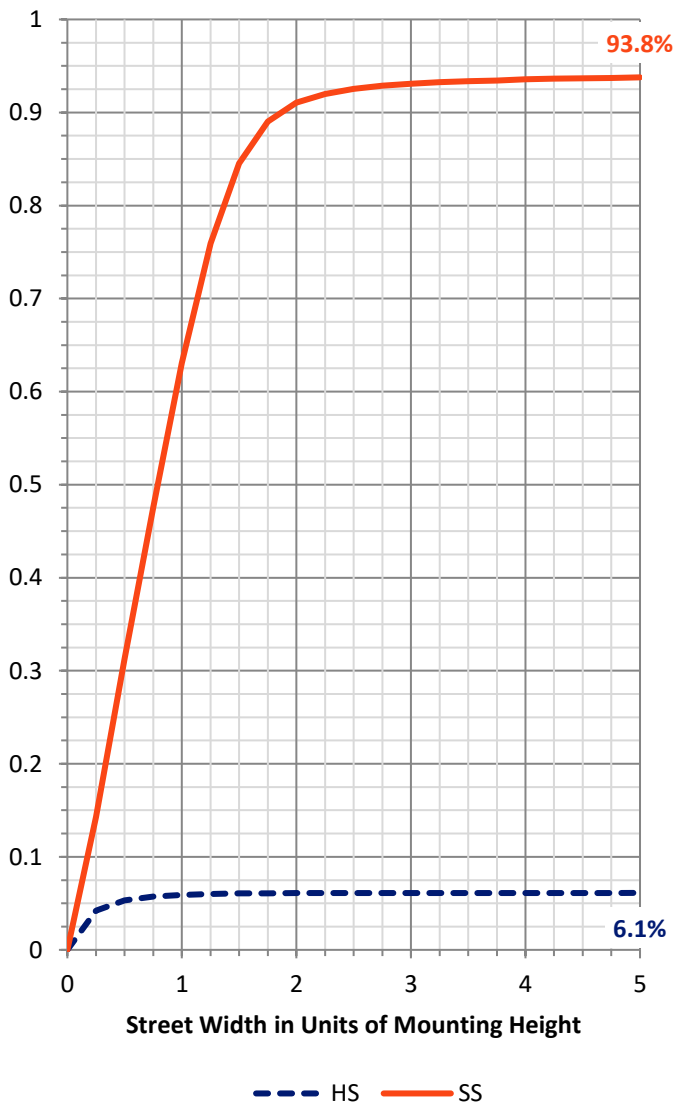
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1187.8	0.0	1187.8
	% Fixture	6.2	0.0	6.2
<b>Street Side</b>	Lumens	18051.8	0.0	18051.8
	% Fixture	93.8	0.0	93.8
<b>Total</b>	Lumens	19239.6	0.0	19239.6
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	202.9	1.1
10°-20°	597.3	3.1
20°-30°	1031.3	5.4
30°-40°	1860.3	9.7
40°-50°	3360.7	17.5
50°-60°	5239.3	27.2
60°-70°	4977.2	25.9
70°-80°	1865.3	9.7
80°-90°	105.2	0.5
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°	19239.6	100.0
0°-180°	19239.6	100.0

**Coefficient of Utilization**

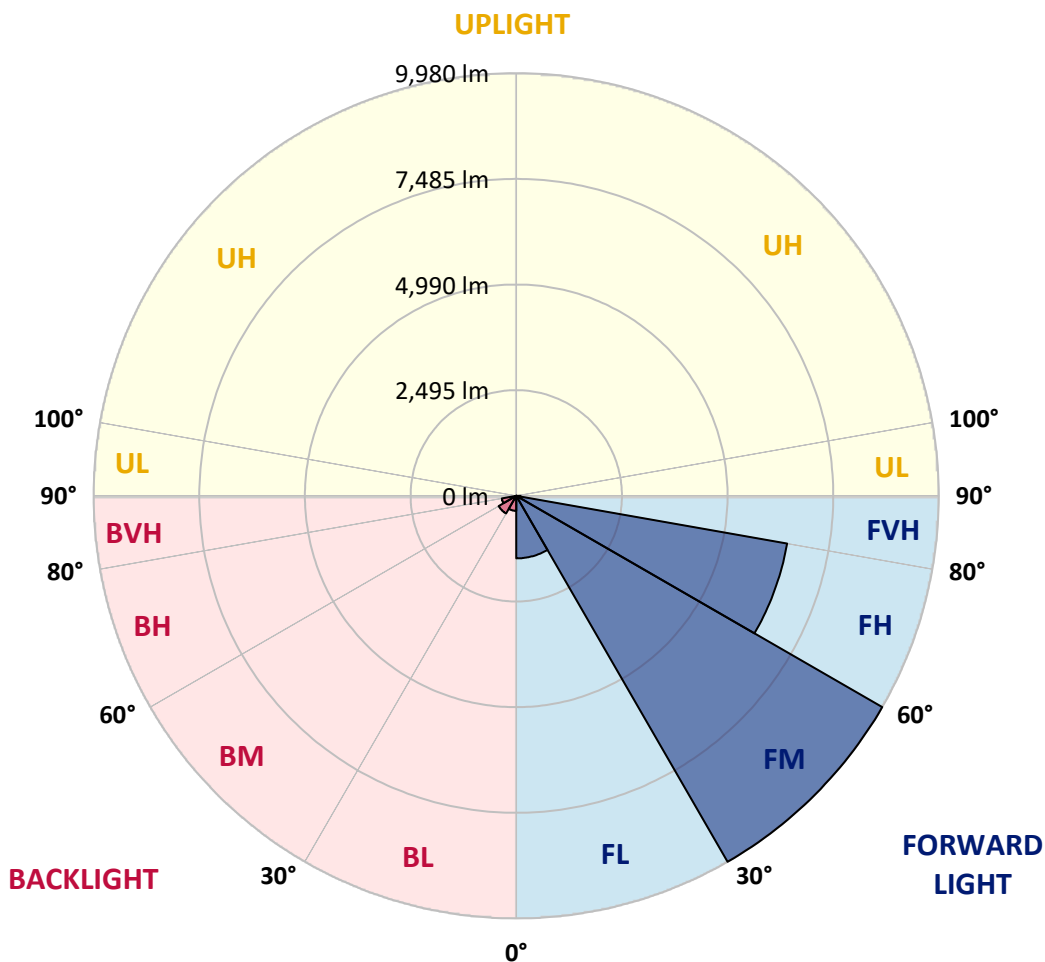


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1476.8	7.7			
FM (30°-60°)	9979.5	51.9			
FH (60°-80°)	6495.6	33.8			G3/7500
FVH (80°-90°)	99.8	0.5			G1/100
BL (0°-30°)	354.7	1.8	B1/500		
BM (30°-60°)	480.8	2.5	B1/1000		
BH (60°-80°)	346.8	1.8	B1/500		G1/500
BVH (80°-90°)	5.4	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-G3**  
 Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	2104.0	2104.0	2104.0	2104.0	2104.0	2104.0	2104.0	2104.0	2104.0	2104.0	2104.0
2.5°	2513.7	2482.5	2492.4	2478.2	2445.5	2397.1	2354.4	2293.2	2232.1	2222.1	2153.8
5°	2845.2	2836.7	2825.3	2784.0	2761.3	2687.3	2599.1	2493.8	2367.2	2344.5	2220.7
7.5°	3071.4	3067.1	3072.8	3051.5	3031.6	2964.7	2870.8	2727.1	2530.8	2518.0	2311.7
10°	3145.4	3156.8	3178.1	3212.3	3243.6	3222.2	3151.1	2971.8	2742.8	2705.8	2415.6
12.5°	3102.7	3115.5	3166.7	3257.8	3358.8	3417.1	3388.6	3257.8	2967.6	2937.7	2532.3
15°	2993.2	3008.8	3081.3	3222.2	3402.9	3567.9	3639.0	3545.2	3229.4	3180.9	2673.1
17.5°	2831.0	2853.8	2957.6	3144.0	3391.5	3676.0	3876.6	3845.3	3508.1	3462.6	2826.7
20°	2708.6	2725.7	2813.9	3027.3	3343.1	3735.8	4102.8	4191.0	3852.5	3774.2	3007.4
22.5°	2789.8	2795.4	2825.3	2953.3	3256.4	3751.4	4302.0	4550.9	4218.0	4148.3	3195.2
25°	3186.6	3129.7	3099.8	3071.4	3237.8	3737.2	4482.6	4926.5	4582.2	4508.3	3381.6
27.5°	3812.6	3786.9	3636.1	3434.1	3395.8	3755.7	4602.1	5282.2	4925.1	4845.4	3563.7
30°	4494.1	4449.9	4357.5	4061.5	3764.2	3886.6	4688.9	5627.8	5330.5	5225.2	3730.1
32.5°	5119.9	5148.4	5010.4	4706.0	4361.7	4165.4	4801.3	6004.8	5795.7	5664.8	3923.5
35°	5849.7	5906.7	5694.7	5403.1	5000.5	4669.0	5020.3	6430.2	6386.0	6221.0	4222.3
37.5°	6590.9	6625.1	6495.6	6085.9	5723.2	5309.1	5432.9	6955.2	7113.0	6972.2	4579.4
40°	7214.0	7261.0	7165.7	6801.5	6414.6	6050.3	6031.8	7527.0	7978.0	7832.9	5111.4
42.5°	7690.6	7726.2	7729.0	7471.5	7123.0	6957.9	6795.8	8256.8	9062.0	8894.2	5728.8
45°	8292.3	8343.6	8313.7	8138.7	7878.4	7848.5	7764.6	9138.8	10359.4	10147.4	6529.8
47.5°	9222.7	9256.9	9183.0	8976.7	8712.1	8759.0	8709.2	10127.6	11682.4	11500.3	7359.2
50°	9868.6	9925.6	10030.8	10113.3	9921.3	9747.7	9599.8	11050.8	12938.6	12775.0	8207.0
52.5°	9861.5	9955.4	10288.3	10703.7	11123.4	11070.8	10645.4	12070.8	14137.9	13935.9	9003.7
55°	9197.2	9379.3	9868.6	10605.5	11767.8	12346.8	12153.3	13251.6	15173.5	15037.0	9926.9
57.5°	7825.8	7936.7	8616.7	9646.7	11407.9	12947.1	13900.3	14852.0	16415.5	16351.5	11360.9
60°	5263.7	5313.4	6188.3	7461.6	9712.1	12348.2	15180.6	16788.2	17944.8	17913.5	13035.3
62.5°	3015.9	3037.3	3671.7	4745.8	6911.0	10464.7	15288.8	19176.7	19778.5	19795.5	14972.9
65°	1623.2	1634.6	2146.7	2785.5	4205.3	7458.7	13748.1	20485.6	21260.9	21293.6	16173.6
66°	1401.3	1347.2	1708.6	2374.3	3346.0	5936.5	12773.6	20438.6	21545.4	21509.8	16131.0
67.5°	1065.5	1113.9	1364.3	1825.2	2479.6	4220.9	10545.8	19529.5	21329.1	21218.2	15475.2
70°	762.5	782.5	971.6	1301.7	1688.6	2316.0	6738.8	16220.5	19385.9	19236.5	13482.1
72.5°	492.2	513.6	688.5	941.8	1220.6	1264.7	3772.7	11719.4	14945.9	14924.6	10153.1
75°	351.4	371.3	455.2	674.3	917.6	782.5	1816.6	7898.3	9501.6	9437.5	6280.8
77.5°	254.7	264.6	304.4	441.0	655.8	560.5	842.2	4218.0	4730.2	4953.5	2775.5
80°	146.5	155.1	211.9	268.9	443.9	382.7	402.6	1692.9	1745.6	1661.6	867.8
82.5°	72.6	82.5	126.6	183.5	277.4	257.5	184.9	509.3	537.7	523.5	219.1
85°	17.1	21.4	71.1	120.9	135.1	115.2	89.7	149.4	184.9	180.6	83.9
87.5°	1.4	2.9	25.6	21.4	22.8	38.4	31.3	38.4	59.7	55.5	29.9
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°	2104.0	2104.0	2104.0	2104.0	2104.0	2104.0	2104.0	2104.0	2104.0	2104.0	2104.0
2.5°	2122.5	2095.5	2017.2	1940.4	1876.4	1809.6	1748.4	1712.8	1698.6	1682.9	1690.1
5°	2152.4	2086.9	1929.1	1792.5	1658.8	1544.9	1453.9	1395.6	1367.1	1362.8	1355.8
7.5°	2192.2	2079.9	1835.1	1621.8	1446.8	1320.2	1216.3	1132.4	1106.8	1084.0	1065.5
10°	2240.6	2067.0	1718.5	1442.5	1256.2	1096.8	960.3	860.7	809.5	795.2	805.2
12.5°	2291.8	2042.9	1596.1	1277.5	1062.7	859.2	732.7	682.9	668.6	663.0	664.4
15°	2343.0	2013.0	1468.1	1118.2	846.5	685.7	627.4	614.6	608.9	606.0	603.2
17.5°	2390.0	1964.7	1324.4	963.1	685.7	586.1	564.8	553.4	542.0	537.7	530.7
20°	2445.5	1909.2	1195.0	789.5	580.5	530.7	505.0	483.7	466.6	455.2	453.8
22.5°	2498.1	1838.0	1059.8	654.4	529.2	476.6	435.3	412.6	392.7	378.4	382.7
25°	2526.5	1751.2	938.9	570.5	482.2	422.5	377.0	348.5	327.2	320.1	318.7
27.5°	2526.5	1644.6	820.8	522.1	439.6	374.2	327.2	300.2	285.9	276.0	277.4
30°	2506.6	1526.5	711.3	485.1	402.6	331.4	287.4	263.1	251.8	244.6	243.3
32.5°	2491.0	1414.1	617.4	449.5	364.2	294.5	256.1	237.6	226.2	219.1	219.1
35°	2515.2	1317.3	544.9	413.9	328.7	266.0	231.9	214.8	203.4	197.7	196.3
37.5°	2579.2	1229.1	489.4	375.6	295.9	241.9	214.8	194.9	183.5	176.4	173.6
40°	2737.1	1179.3	448.1	340.0	264.6	221.9	194.9	176.4	162.1	155.1	153.7
42.5°	2990.3	1180.8	408.3	307.3	240.4	204.9	177.8	156.5	140.9	133.7	132.3
45°	3371.6	1234.8	377.0	276.0	219.1	186.4	159.4	136.6	122.4	115.2	115.2
47.5°	3828.2	1340.1	349.9	248.9	199.1	169.3	140.9	118.1	103.9	98.1	98.1
50°	4323.3	1476.6	322.9	220.5	182.1	150.8	120.9	102.4	91.1	86.8	86.8
52.5°	4828.3	1641.7	295.9	197.7	163.6	130.9	103.9	91.1	81.1	78.2	76.8
55°	5491.2	1852.2	267.4	173.6	143.6	112.4	92.5	79.6	68.3	64.0	62.6
57.5°	6511.3	2169.4	236.2	152.2	118.1	93.9	79.6	66.9	54.1	46.9	45.5
60°	7741.8	2556.4	203.4	133.7	95.3	76.8	64.0	51.2	39.9	31.3	29.9
62.5°	8894.2	2802.5	172.2	112.4	75.4	58.4	45.5	38.4	28.4	19.9	18.5
65°	9403.5	2720.0	142.3	91.1	59.7	41.3	29.9	27.0	17.1	8.5	7.1
66°	9234.2	2597.7	130.9	82.5	54.1	35.6	25.6	22.8	12.8	4.3	4.3
67.5°	8734.8	2308.9	113.8	71.1	46.9	28.4	19.9	17.1	7.1	1.4	0.0
70°	7484.3	1867.9	89.7	52.6	34.1	19.9	11.4	8.5	4.3	0.0	0.0
72.5°	5748.7	1391.4	71.1	39.9	24.2	11.4	5.7	2.9	4.3	0.0	0.0
75°	3522.4	795.2	55.5	29.9	15.6	7.1	4.3	0.0	4.3	1.4	0.0
77.5°	1563.4	357.1	37.0	19.9	11.4	5.7	2.9	0.0	2.9	1.4	0.0
80°	395.5	116.6	21.4	14.2	8.5	4.3	1.4	0.0	2.9	2.9	1.4
82.5°	108.2	42.6	15.6	11.4	7.1	4.3	1.4	0.0	2.9	2.9	2.9
85°	42.6	19.9	14.2	11.4	8.5	4.3	1.4	0.0	2.9	2.9	2.9
87.5°	19.9	14.2	14.2	12.8	9.9	4.3	1.4	0.0	2.9	1.4	2.9
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)