

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: P651623

Luminaire Tested: **GALN-SA9D-840-U-SL4**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P651623
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-18)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA9D-840-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 57731.3 lumens
Efficiency: N/A
Efficacy: 104.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

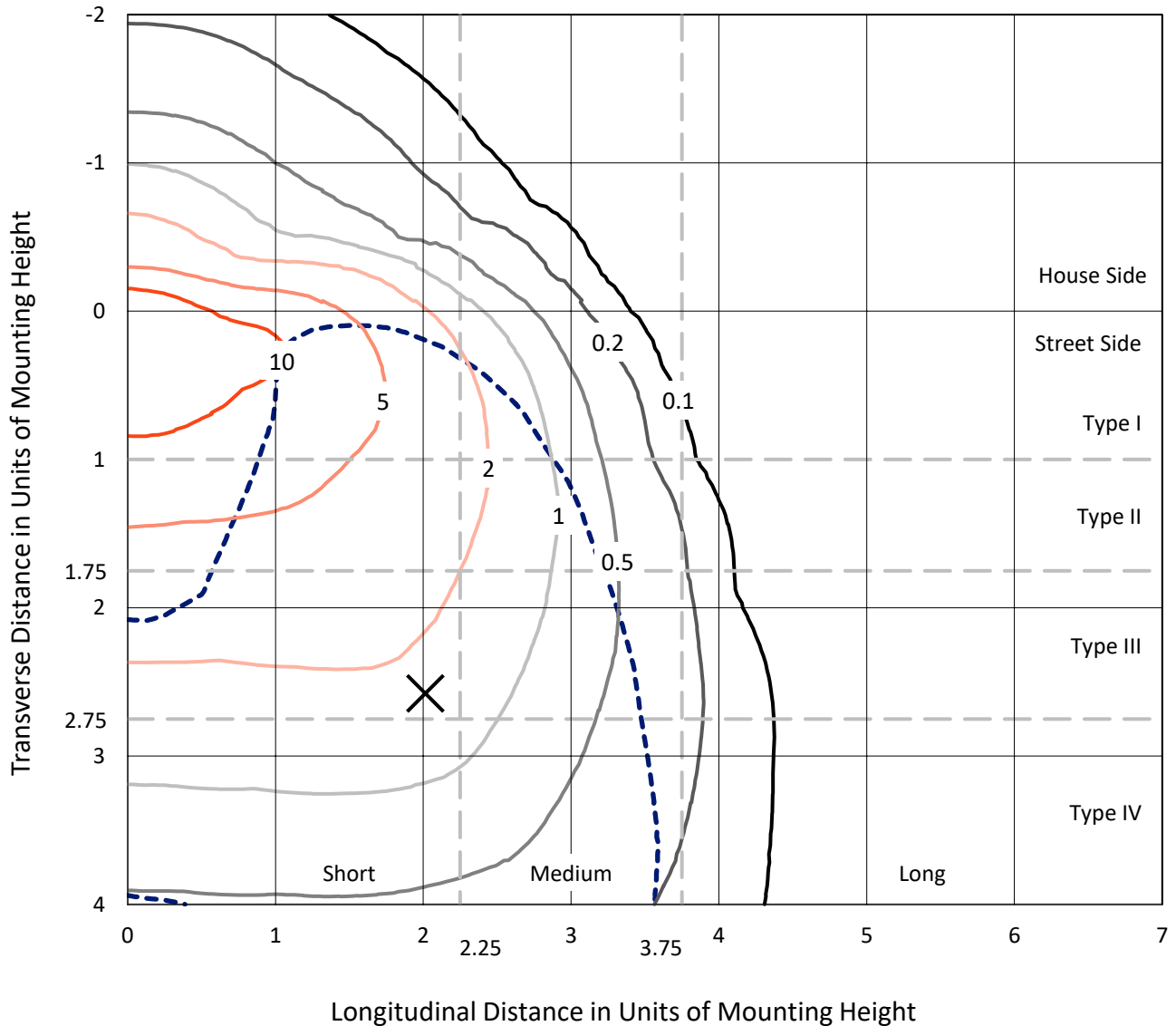
Input Watts (W): 552
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

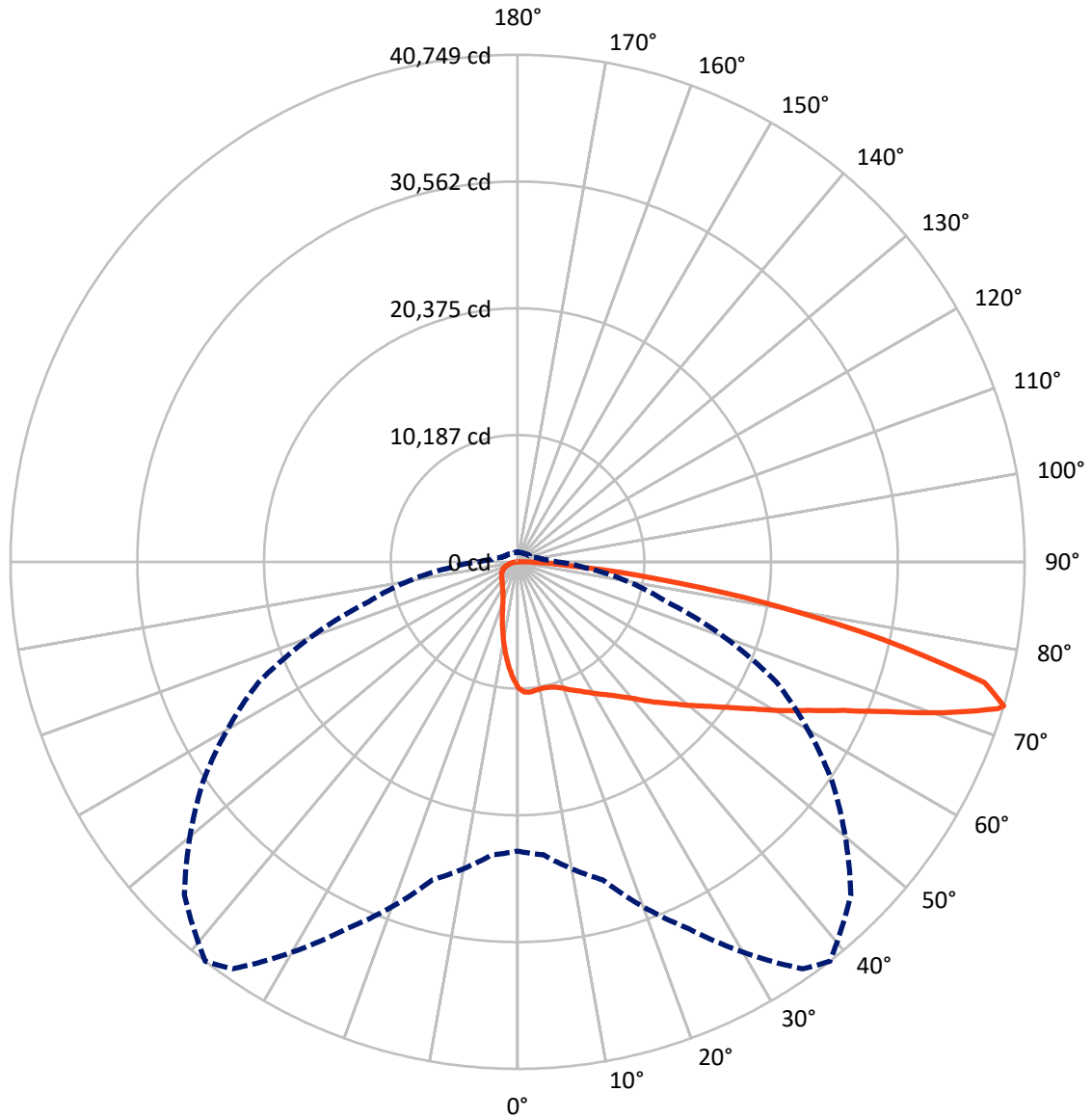
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 16.6 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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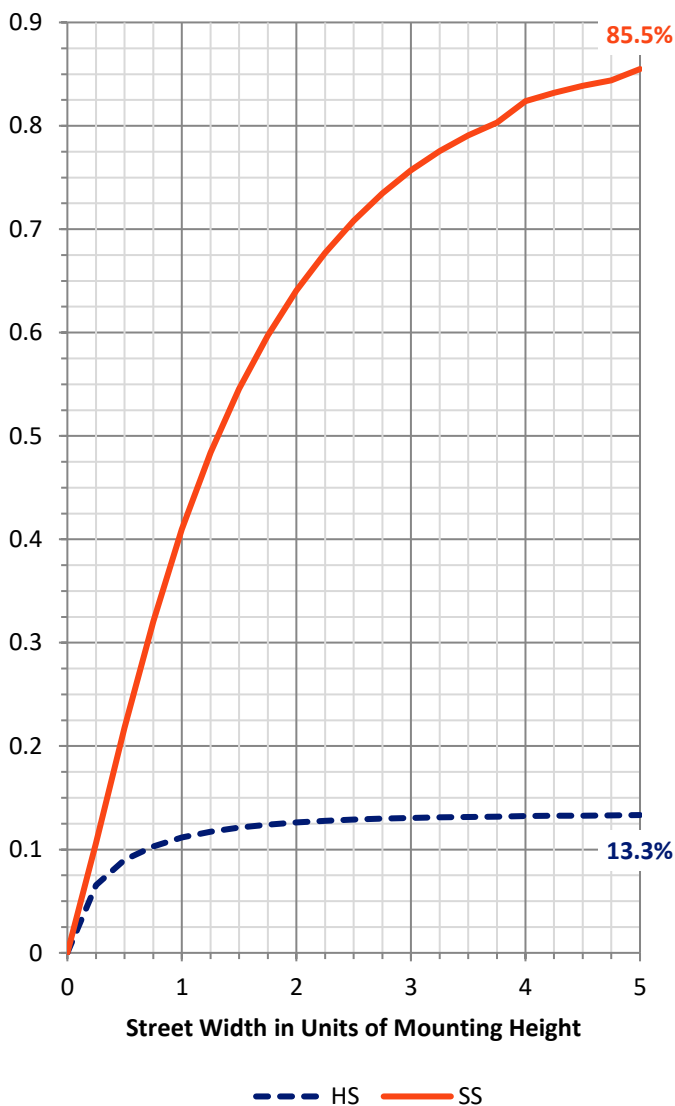
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7760.8	0.0	7760.8
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	49970.5	0.0	49970.5
	% Fixture	86.6	0.0	86.6
Total	Lumens	57731.3	0.0	57731.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	885.3	1.5
10°-20°	2270.3	3.9
20°-30°	3535.2	6.1
30°-40°	5185.4	9.0
40°-50°	7691.9	13.3
50°-60°	10897.9	18.9
60°-70°	13824.3	23.9
70°-80°	11507.7	19.9
80°-90°	1933.5	3.3
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°	57731.3	100.0
0°-180°	57731.3	100.0

Coefficient of Utilization



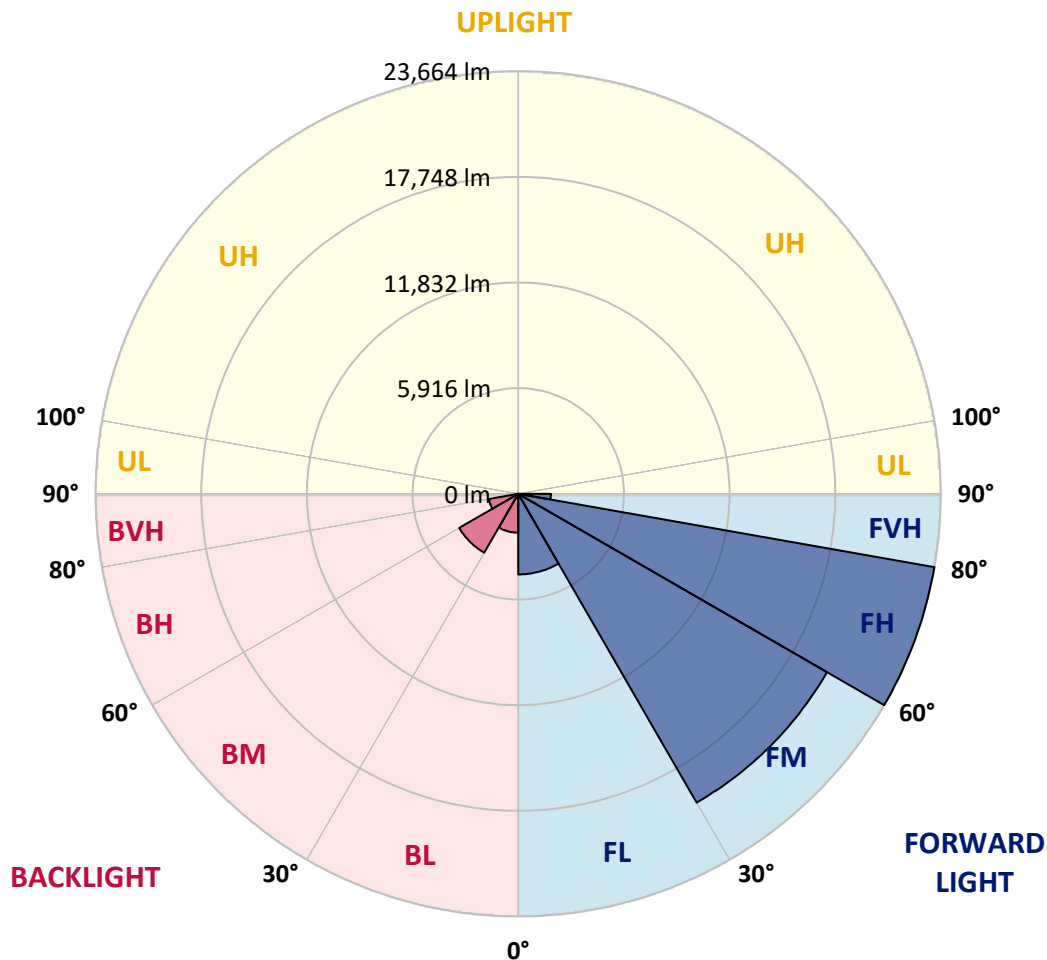
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4513.0	7.8			
FM (30°-60°)	19965.0	34.6			
FH (60°-80°)	23663.8	41.0			G5
FVH (80°-90°)	1828.6	3.2			G5
BL (0°-30°)	2177.8	3.8	B3/2500		
BM (30°-60°)	3810.1	6.6	B3/5000		
BH (60°-80°)	1668.1	2.9	B3/2500		G3/2500
BVH (80°-90°)	104.9	0.2			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	10142.4	10142.4	10142.4	10142.4	10142.4	10142.4	10142.4	10142.4	10142.4	10142.4	10142.4
2.5°	10549.9	10602.1	10576.0	10540.2	10517.3	10494.5	10461.9	10367.3	10292.4	10210.8	10083.8
5°	10628.1	10660.8	10638.0	10592.3	10540.2	10517.3	10455.4	10331.5	10210.8	10073.9	9884.9
7.5°	10582.6	10595.6	10569.5	10514.1	10468.4	10426.0	10354.3	10217.4	10070.7	9904.5	9656.6
10°	10419.5	10468.4	10468.4	10422.8	10377.2	10354.3	10282.6	10152.2	10018.5	9829.4	9536.0
12.5°	10285.9	10338.0	10380.4	10367.3	10364.1	10364.1	10308.6	10210.8	10054.4	9875.1	9526.3
15°	10194.6	10256.5	10347.8	10400.0	10432.6	10442.4	10419.5	10334.8	10175.0	9966.4	9565.4
17.5°	10175.0	10250.0	10416.3	10530.3	10615.1	10611.9	10605.3	10488.0	10311.9	10096.8	9614.2
20°	10263.1	10360.9	10592.3	10771.6	10895.5	10872.7	10836.8	10683.6	10478.2	10237.0	9659.9
22.5°	10527.1	10628.1	10882.5	11078.1	11198.7	11198.7	11091.1	10889.0	10670.5	10400.0	9721.9
25°	10905.3	11016.2	11286.7	11485.6	11541.0	11498.7	11391.1	11146.5	10895.5	10634.7	9852.2
27.5°	11368.2	11501.9	11753.0	11919.2	11902.9	11870.3	11759.5	11446.5	11195.5	10957.5	10073.9
30°	11945.3	12043.1	12303.9	12343.0	12284.3	12277.8	12121.3	11808.4	11573.6	11391.1	10390.2
32.5°	12489.8	12577.7	12786.4	12802.7	12698.4	12711.5	12564.7	12277.8	12144.1	12078.9	10921.6
35°	13066.8	13112.5	13291.8	13272.2	13203.7	13193.9	13135.2	12861.4	12903.8	13021.1	11674.7
37.5°	13549.3	13640.6	13741.6	13757.9	13754.7	13787.3	13826.4	13696.0	13940.5	14308.9	12662.5
40°	13992.6	14070.9	14220.9	14273.0	14400.2	14465.4	14599.1	14602.4	15166.3	15772.7	13878.6
42.5°	14292.6	14426.3	14706.7	14801.2	15110.9	15306.5	15505.4	15717.3	16535.6	17314.8	15313.0
45°	14553.4	14729.4	15195.7	15489.1	15909.7	16147.6	16568.2	17011.6	18188.6	19208.9	16770.4
47.5°	14947.9	15104.4	15639.1	16157.5	16793.2	17067.0	17696.2	18358.0	19896.9	21015.1	18165.7
50°	15495.6	15590.1	16134.6	16979.0	17790.8	18142.9	18974.2	19929.4	21722.5	22798.4	19391.5
52.5°	16196.6	16235.7	16669.3	17794.0	18863.4	19300.3	20402.2	21517.2	23320.0	24347.0	20363.0
55°	17024.6	16959.4	17298.5	18658.0	20089.2	20659.8	21843.2	23124.5	25116.4	25598.9	21070.5
57.5°	17842.9	17741.9	18012.5	19707.7	21601.9	22289.9	23668.9	24780.6	26720.4	26769.3	21566.1
60°	18710.1	18635.1	18957.9	20940.1	23457.0	24272.0	25546.7	26498.7	28272.2	27584.4	21644.3
62.5°	19600.2	19479.6	19939.3	22325.7	25546.7	26286.8	27522.4	28324.4	29794.8	27887.6	20891.2
65°	20464.1	20408.7	21119.4	23972.1	27926.7	28767.8	29967.5	30512.0	31014.1	27431.1	19023.2
67.5°	21383.5	21494.4	22628.9	26169.4	31030.4	32086.7	33381.0	32869.1	31362.9	25269.6	16020.5
70°	22785.4	22857.1	24611.1	29048.1	35030.6	36305.3	36931.3	33706.9	29680.7	21165.0	12043.1
72.5°	23388.5	23704.8	26381.3	32070.4	39575.3	40354.5	38124.5	31838.9	24725.1	14377.4	6328.0
73°	23254.8	23633.0	26462.8	32530.0	39930.7	40749.0	37870.2	30877.1	22984.3	12382.1	5425.0
75°	21588.9	22055.1	25403.3	32145.4	39239.5	38750.4	33782.0	26316.2	15531.5	5630.3	2471.2
77.5°	17034.5	17168.1	20128.3	25957.5	30899.9	29993.6	25282.6	16447.6	6344.3	2093.0	1401.9
80°	8544.9	9037.2	11345.4	14869.6	20663.0	20366.3	15958.6	7778.7	2644.0	1229.1	929.1
82.5°	4111.1	4459.9	5526.0	7250.6	11417.2	11146.5	7902.7	4251.3	1679.0	717.2	547.7
85°	2647.3	2908.1	3517.7	3459.0	4694.6	4482.8	3550.4	3217.8	994.3	374.9	381.5
87.5°	1747.4	1913.7	2295.2	1835.5	1708.3	1545.3	1568.1	1812.7	195.6	143.5	52.1
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°	10142.4	10142.4	10142.4	10142.4	10142.4	10142.4	10142.4	10142.4	10142.4	10142.4	10142.4
2.5°	10031.5	9989.1	9849.0	9712.0	9581.7	9457.8	9376.3	9268.7	9196.9	9216.5	9245.9
5°	9780.5	9686.0	9438.2	9196.9	8968.8	8698.1	8479.7	8303.7	8170.0	8121.1	8111.3
7.5°	9516.4	9356.7	9001.3	8587.3	8199.3	7863.5	7475.6	7283.2	7058.3	6980.0	6954.0
10°	9356.7	9141.5	8642.7	8065.7	7482.1	6924.6	6504.0	6161.8	5852.0	5793.3	5764.0
12.5°	9311.0	9027.5	8355.8	7612.5	6836.6	6151.9	5529.2	5079.4	4779.4	4710.9	4609.9
15°	9285.0	8932.8	8088.5	7156.1	6171.5	5336.9	4681.6	4156.7	3882.9	3700.3	3703.6
17.5°	9262.2	8825.3	7788.6	6657.3	5597.7	4636.0	3912.2	3439.5	3188.5	3090.7	3080.8
20°	9229.6	8698.1	7443.0	6132.4	4942.4	3996.9	3341.7	2989.6	2820.0	2738.5	2735.3
22.5°	9216.5	8574.2	7103.9	5597.7	4362.1	3504.7	2963.5	2715.8	2608.1	2552.7	2552.7
25°	9249.1	8486.3	6748.6	5089.1	3847.0	3084.1	2702.7	2533.2	2471.2	2441.8	2432.1
27.5°	9350.2	8447.1	6396.5	4580.5	3374.3	2797.3	2526.6	2409.3	2363.6	2340.8	2344.0
30°	9542.6	8443.9	6050.9	4078.5	3022.2	2578.8	2386.4	2304.9	2269.1	2256.1	2252.8
32.5°	9852.2	8515.5	5711.8	3664.4	2725.5	2396.3	2256.1	2197.4	2181.0	2171.3	2168.0
35°	10377.2	8717.7	5376.0	3286.3	2497.3	2233.2	2132.2	2102.8	2080.0	2089.8	2093.0
37.5°	11084.6	9066.6	5056.5	2989.6	2324.5	2112.6	2027.8	2001.7	1988.7	1998.5	2008.3
40°	12033.3	9568.6	4789.2	2751.6	2200.6	2011.5	1936.6	1913.7	1900.7	1917.0	1920.3
42.5°	13079.8	10148.9	4567.5	2565.7	2099.6	1926.7	1855.1	1828.9	1819.2	1828.9	1832.2
45°	14155.7	10823.8	4453.4	2432.1	2014.8	1864.8	1789.8	1760.5	1737.7	1731.1	1741.0
47.5°	15215.2	11410.6	4450.2	2350.6	1946.3	1809.4	1727.9	1695.3	1665.9	1649.6	1646.4
50°	16079.2	11876.9	4528.4	2314.7	1887.6	1747.4	1665.9	1633.4	1594.2	1561.7	1568.1
52.5°	16731.2	12180.0	4564.3	2298.5	1855.1	1682.3	1600.8	1571.4	1525.7	1483.4	1483.4
55°	17151.8	12251.8	4476.2	2282.1	1828.9	1613.8	1525.7	1499.7	1454.0	1411.6	1411.6
57.5°	17295.2	12030.1	4160.0	2243.0	1802.9	1555.1	1450.8	1427.9	1392.1	1349.7	1343.2
60°	16962.7	11280.2	3605.8	2125.6	1750.7	1493.2	1369.2	1359.5	1346.4	1310.6	1307.3
62.5°	15681.5	9689.2	3002.6	1972.4	1662.7	1427.9	1294.3	1310.6	1320.4	1300.8	1297.6
65°	13549.3	7866.8	2565.7	1760.5	1545.3	1336.7	1212.8	1255.2	1281.3	1281.3	1274.7
67.5°	10990.0	6041.1	2161.5	1577.9	1398.6	1212.8	1121.5	1154.1	1173.7	1167.1	1183.5
70°	7811.4	4091.5	1760.5	1369.2	1212.8	1072.6	1004.2	1004.2	991.1	984.6	984.6
72.5°	3788.3	2337.6	1427.9	1144.3	1033.5	916.1	860.7	837.9	811.8	808.5	792.2
73°	3165.6	2096.3	1362.8	1102.0	991.1	893.3	831.3	795.5	779.2	766.2	762.9
75°	1926.7	1591.0	1137.8	929.1	844.4	769.4	714.0	681.4	665.1	655.3	652.0
77.5°	1268.2	1186.7	883.5	710.7	645.6	599.9	577.0	544.5	534.7	521.6	521.6
80°	945.5	906.3	632.5	502.1	463.0	423.9	417.3	410.7	384.7	368.4	361.9
82.5°	609.6	645.6	430.3	335.8	293.4	260.8	264.1	273.8	247.8	225.0	218.4
85°	433.6	466.2	260.8	153.2	123.9	107.6	120.6	107.6	110.8	88.1	71.7
87.5°	71.7	123.9	45.7	19.6	9.8	6.6	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)