

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: P651372

Luminaire Tested: **GALN-SA4D-840-U-T3R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P651372
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-8)
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-T3R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26337.6 lumens
Efficiency: N/A
Efficacy: 107.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

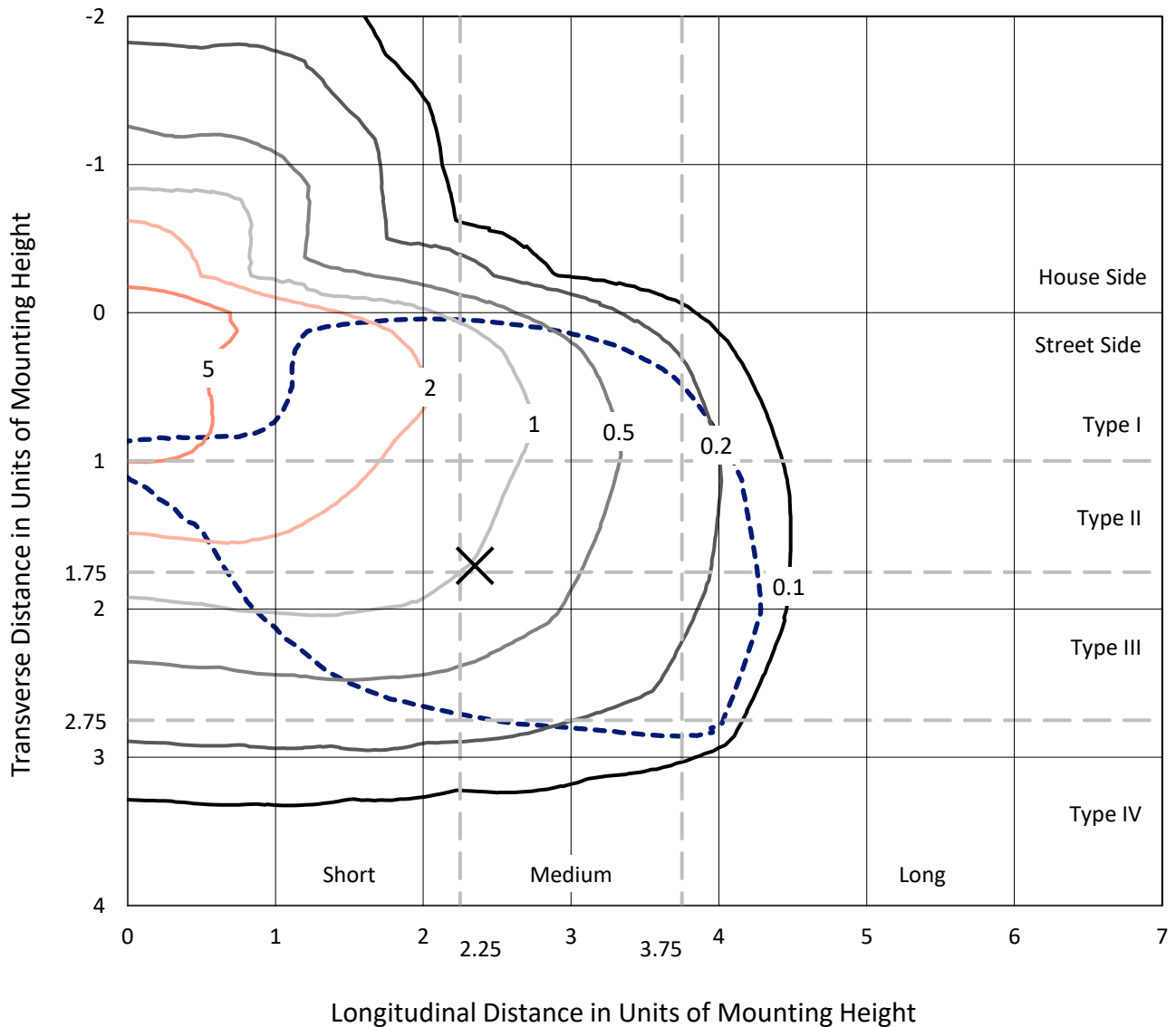
Input Watts (W): 245
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

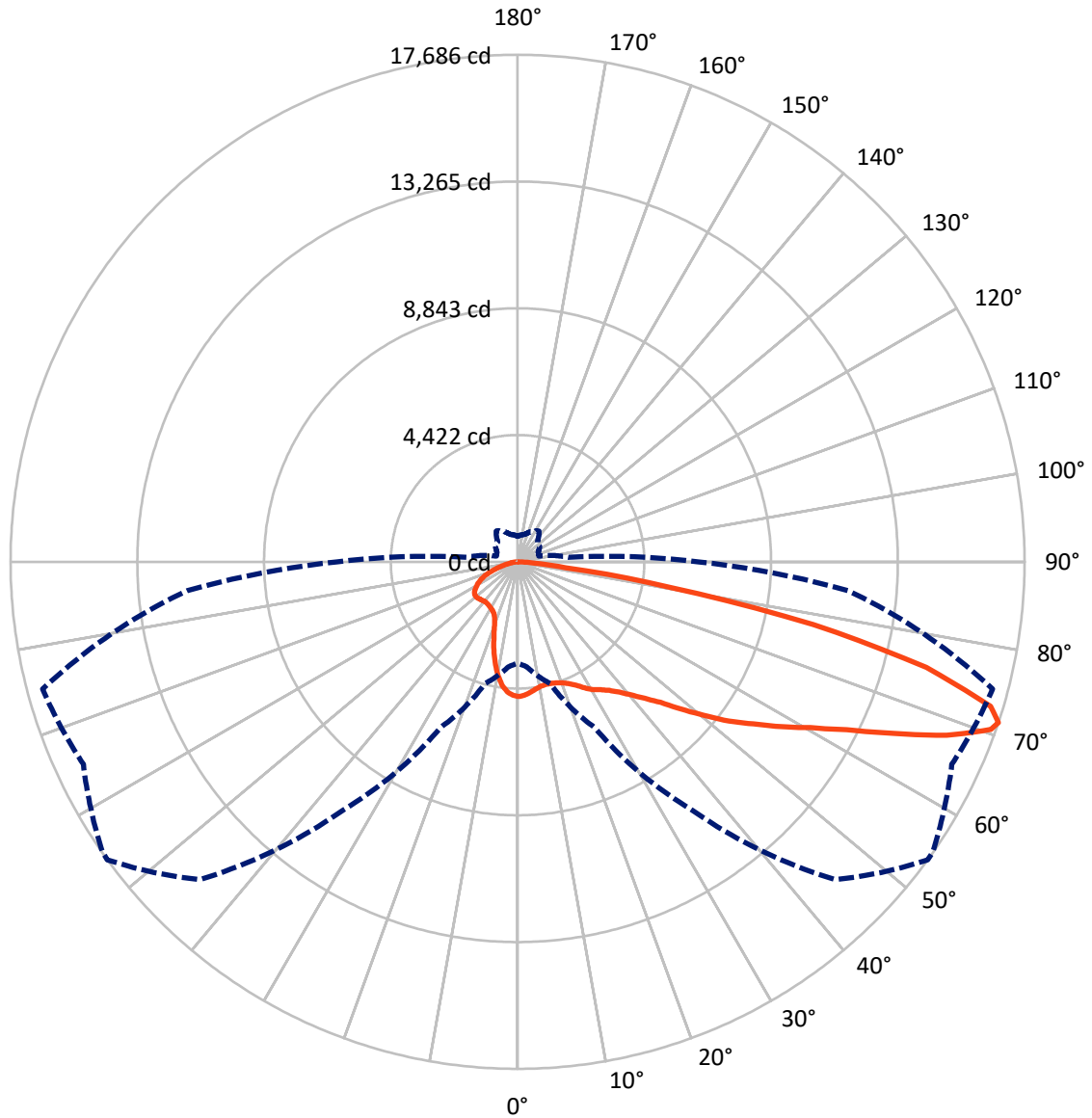
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.6 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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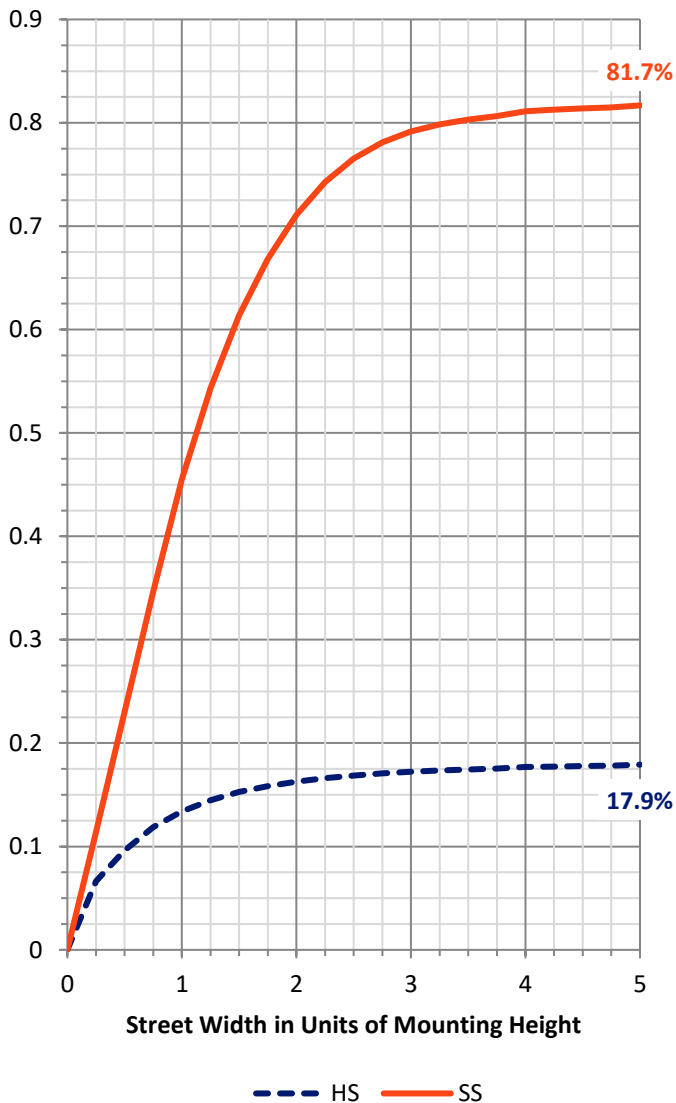
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4755.1	0.0	4755.1
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	21582.5	0.0	21582.5
	% Fixture	81.9	0.0	81.9
Total	Lumens	26337.6	0.0	26337.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	418.8	1.6
10°-20°	1105.7	4.2
20°-30°	1841.1	7.0
30°-40°	2722.3	10.3
40°-50°	3834.5	14.6
50°-60°	5134.6	19.5
60°-70°	6471.7	24.6
70°-80°	4420.2	16.8
80°-90°	388.7	1.5
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°	26337.6	100.0
0°-180°	26337.6	100.0

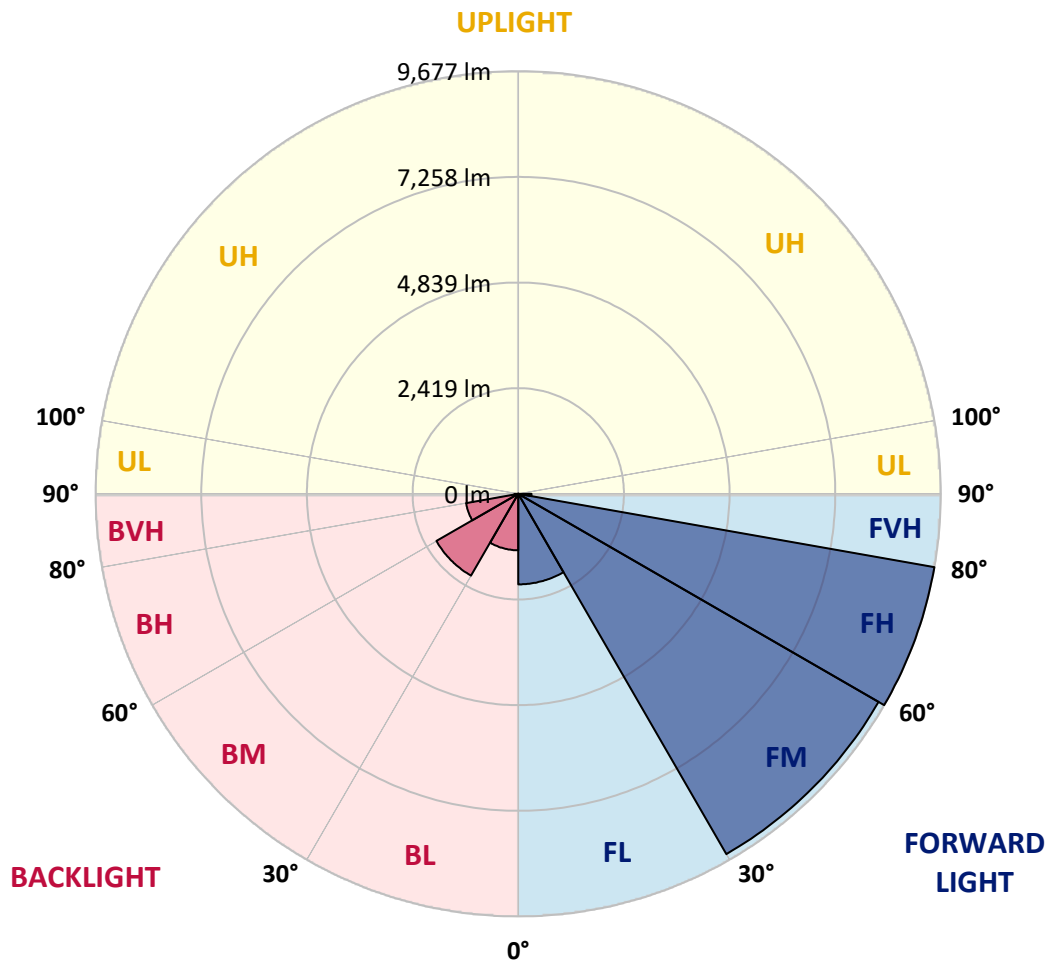


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2073.2	7.9			
FM (30°-60°)	9528.0	36.2			
FH (60°-80°)	9677.5	36.7			G4/12000
FVH (80°-90°)	303.8	1.2			G3/500
BL (0°-30°)	1292.3	4.9	B3/2500		
BM (30°-60°)	2163.4	8.2	B2/2500		
BH (60°-80°)	1214.4	4.6	B3/2500		G3/2500
BVH (80°-90°)	84.9	0.3			G1/100
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 Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	4699.0	4699.0	4699.0	4699.0	4699.0	4699.0	4699.0	4699.0	4699.0	4699.0	4699.0
2.5°	4539.7	4561.0	4566.7	4580.9	4610.8	4635.0	4659.2	4656.4	4690.5	4704.7	4717.5
5°	4337.6	4343.3	4364.7	4393.1	4445.8	4512.6	4578.1	4579.5	4663.4	4730.3	4763.0
7.5°	4189.7	4208.2	4222.4	4252.3	4307.8	4380.3	4484.2	4492.7	4642.2	4774.4	4844.2
10°	4093.0	4114.3	4130.0	4167.0	4222.4	4303.5	4415.9	4431.6	4626.4	4844.2	4966.4
12.5°	4004.8	4026.1	4040.3	4088.7	4161.3	4260.8	4387.5	4405.9	4632.1	4925.2	5100.2
15°	4058.8	4075.9	4070.2	4084.4	4132.8	4246.6	4398.9	4417.4	4653.5	5003.4	5232.5
17.5°	4299.3	4313.5	4266.6	4212.5	4189.7	4273.6	4434.4	4454.4	4696.1	5084.5	5367.7
20°	4653.5	4691.9	4589.5	4468.6	4359.0	4370.4	4508.3	4529.7	4755.9	5165.7	5505.7
22.5°	5114.5	5142.9	5017.7	4818.5	4616.5	4512.6	4619.4	4632.1	4845.6	5270.9	5656.5
25°	5656.5	5673.6	5500.0	5243.9	4952.2	4755.9	4771.6	4794.4	4993.5	5390.4	5790.2
27.5°	6182.9	6236.9	6036.3	5723.3	5339.2	5012.0	4980.7	4995.0	5154.2	5457.2	5882.6
30°	6807.4	6803.1	6591.2	6228.4	5736.1	5290.8	5178.5	5175.6	5241.0	5490.0	5949.5
32.5°	7305.3	7363.6	7155.9	6760.5	6189.9	5579.6	5315.0	5309.3	5307.9	5546.9	6049.1
35°	7871.5	7880.1	7689.4	7291.0	6680.7	5942.4	5505.7	5477.2	5444.5	5669.3	6184.3
37.5°	8378.0	8417.8	8242.8	7796.2	7163.0	6319.4	5767.4	5748.9	5649.3	5881.3	6400.5
40°	8773.5	8803.3	8698.1	8272.7	7638.2	6726.3	6100.4	6066.2	5945.3	6228.4	6689.3
42.5°	8902.9	8964.1	9005.3	8796.3	8184.5	7208.5	6510.0	6467.4	6374.9	6754.7	7022.2
45°	8912.9	9009.6	9227.3	9237.3	8733.6	7786.1	6988.0	6958.2	6951.0	7429.1	7490.3
47.5°	8837.5	8935.7	9301.3	9499.0	9223.1	8369.5	7678.1	7631.1	7635.4	8262.7	8015.2
50°	8655.4	8772.1	9215.9	9666.9	9605.7	8975.5	8406.5	8390.8	8479.0	9214.5	8560.1
52.5°	8312.5	8453.4	9127.7	9772.2	9890.2	9497.6	9234.4	9190.4	9413.6	10247.3	9156.2
55°	7363.6	7575.6	8804.8	9830.5	10160.5	9997.0	9979.9	10059.5	10355.5	11374.1	9812.0
57.5°	6868.5	7027.9	8103.5	9840.5	10502.0	10577.4	10850.6	10870.5	11388.3	12570.5	10553.2
60°	6598.2	6739.1	7719.3	9775.0	10978.6	11295.9	11741.1	11812.3	12397.0	13866.6	11321.5
62.5°	6362.1	6483.0	7488.9	9548.8	11516.4	12361.4	12894.9	12929.0	13542.2	15297.8	12079.7
65°	5805.8	5943.9	7025.0	9322.7	11980.1	13693.0	14425.7	14385.8	14761.4	16532.6	12554.9
67.5°	5056.1	5231.1	6158.6	8541.6	12209.2	15148.4	16150.0	16100.1	15965.0	17342.1	12691.4
70°	4098.7	4192.6	5050.4	7191.5	11294.5	15912.4	17511.4	17458.7	16710.5	17448.8	12045.6
71°	3526.7	3673.3	4397.4	6387.7	10533.3	15679.0	17686.4	17672.2	16711.8	17154.3	11559.0
72.5°	2752.8	2842.5	3482.7	4949.4	8952.8	14353.1	17254.0	17307.9	16349.1	16336.3	10556.1
75°	1741.3	1781.2	2185.2	2913.6	4912.4	10164.8	14728.7	14875.3	14516.8	13371.5	7850.2
77.5°	1011.5	1062.7	1308.8	1717.2	2122.6	5517.0	10539.0	10698.4	10086.6	7362.2	3213.8
80°	589.0	645.9	862.1	997.3	974.6	2047.2	5366.3	5638.0	4367.6	1859.4	902.0
82.5°	327.2	365.6	606.0	607.5	519.2	668.7	1688.7	1766.9	1246.3	749.8	368.4
85°	237.6	268.9	391.2	354.2	248.9	287.4	587.5	616.0	503.6	315.8	119.5
87.5°	83.9	119.5	214.8	170.7	68.3	59.7	169.3	138.0	128.0	88.2	27.0
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°	4699.0	4699.0	4699.0	4699.0	4699.0	4699.0	4699.0	4699.0	4699.0	4699.0	4699.0
2.5°	4724.7	4727.4	4713.2	4687.6	4662.0	4629.3	4592.3	4563.9	4551.1	4549.6	4548.2
5°	4775.9	4782.9	4728.9	4649.2	4561.0	4452.9	4360.4	4255.1	4228.1	4185.4	4198.3
7.5°	4858.4	4854.1	4747.4	4578.1	4371.8	4142.8	3949.3	3836.9	3720.2	3687.5	3689.0
10°	4976.4	4949.4	4747.4	4433.0	4088.7	3748.7	3478.4	3307.7	3215.2	3138.4	3109.9
12.5°	5101.6	5033.3	4701.9	4229.6	3724.5	3307.7	3017.4	2787.0	2727.2	2664.6	2666.1
15°	5221.1	5107.3	4612.2	3943.6	3331.9	2836.8	2555.0	2417.1	2398.6	2405.7	2404.3
17.5°	5329.2	5160.0	4475.6	3624.9	2873.8	2432.8	2283.3	2293.3	2343.1	2378.7	2383.0
20°	5438.8	5191.2	4272.2	3198.2	2441.3	2188.0	2193.7	2272.0	2347.4	2395.8	2402.8
22.5°	5542.6	5205.5	4033.2	2785.6	2128.3	2084.2	2168.1	2252.0	2326.0	2373.0	2380.1
25°	5610.9	5172.7	3694.6	2354.5	1974.7	2047.2	2135.4	2206.5	2269.1	2317.5	2328.9
27.5°	5629.4	5067.4	3274.9	2006.0	1903.5	2011.6	2092.7	2145.4	2193.7	2239.2	2247.8
30°	5619.5	4912.4	2814.0	1801.1	1862.2	1970.4	2032.9	2071.4	2129.7	2165.2	2172.4
32.5°	5603.8	4731.7	2333.2	1691.5	1828.1	1931.9	1968.9	2003.1	2001.7	1987.5	1997.4
35°	5609.6	4515.5	1943.4	1626.1	1798.2	1903.5	1934.8	1892.2	1769.8	1764.1	1758.4
37.5°	5639.4	4302.1	1660.2	1580.6	1782.6	1899.2	1916.3	1720.0	1611.9	1562.1	1549.3
40°	5716.2	4053.1	1473.9	1546.4	1781.2	1931.9	1832.4	1633.2	1425.5	1328.8	1321.6
42.5°	5818.6	3808.5	1360.1	1525.1	1798.2	1981.7	1798.2	1510.9	1284.6	1227.8	1219.2
45°	5970.8	3528.2	1297.5	1515.1	1823.9	2000.2	1786.9	1421.2	1227.8	1182.2	1182.2
47.5°	6143.0	3260.7	1263.4	1508.0	1856.6	1987.5	1685.9	1392.8	1200.7	1206.4	1233.4
50°	6313.7	3028.9	1237.7	1492.4	1885.0	1980.3	1644.6	1391.4	1207.8	1280.4	1328.8
52.5°	6511.4	2865.2	1206.4	1466.8	1885.0	1934.8	1631.8	1419.8	1227.8	1249.1	1270.4
55°	6750.5	2814.0	1166.6	1411.3	1850.9	1821.0	1624.6	1461.1	1242.0	1192.2	1200.7
57.5°	7066.3	2896.5	1128.2	1341.6	1772.7	1702.9	1621.8	1472.4	1209.3	1168.0	1159.5
60°	7433.3	3060.1	1116.8	1270.4	1665.9	1601.9	1604.7	1439.7	1163.7	1121.1	1128.2
62.5°	7690.9	3158.3	1109.7	1216.3	1549.3	1490.9	1563.5	1399.9	1143.8	1106.8	1113.9
65°	7690.9	3038.8	1044.2	1133.8	1398.5	1357.2	1513.7	1350.1	1118.2	1075.6	1068.4
67.5°	7399.2	2690.3	944.6	1010.0	1232.0	1205.0	1444.0	1290.3	1079.8	1047.0	1030.0
70°	6639.5	2040.1	819.5	865.0	1021.5	1045.6	1354.3	1209.3	1015.8	976.0	950.3
71°	6305.2	1776.9	766.8	791.0	940.4	976.0	1311.7	1175.1	987.3	930.4	884.9
72.5°	5660.8	1496.6	687.2	697.1	803.8	867.8	1222.1	1109.7	933.3	852.2	801.0
75°	4300.7	1092.6	553.4	547.7	594.7	688.5	1034.3	988.8	818.0	708.5	678.6
77.5°	1858.0	594.7	414.0	418.2	404.0	522.1	813.8	849.3	701.4	576.2	549.2
80°	563.4	342.9	283.1	288.8	270.3	349.9	573.3	665.8	563.4	448.2	411.2
82.5°	288.8	204.9	193.5	190.7	172.2	197.7	347.2	455.2	402.6	280.2	247.5
85°	125.2	109.6	95.3	92.5	81.1	71.1	123.8	227.7	213.4	156.5	149.4
87.5°	31.3	28.4	18.5	17.1	9.9	1.4	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)