

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: P647412

Luminaire Tested: **GALN-SA4D-835-U-T3R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P647412
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-835-U-T3R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3500K, 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: 24521.2 lumens
Efficiency: N/A
Efficacy: 100.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

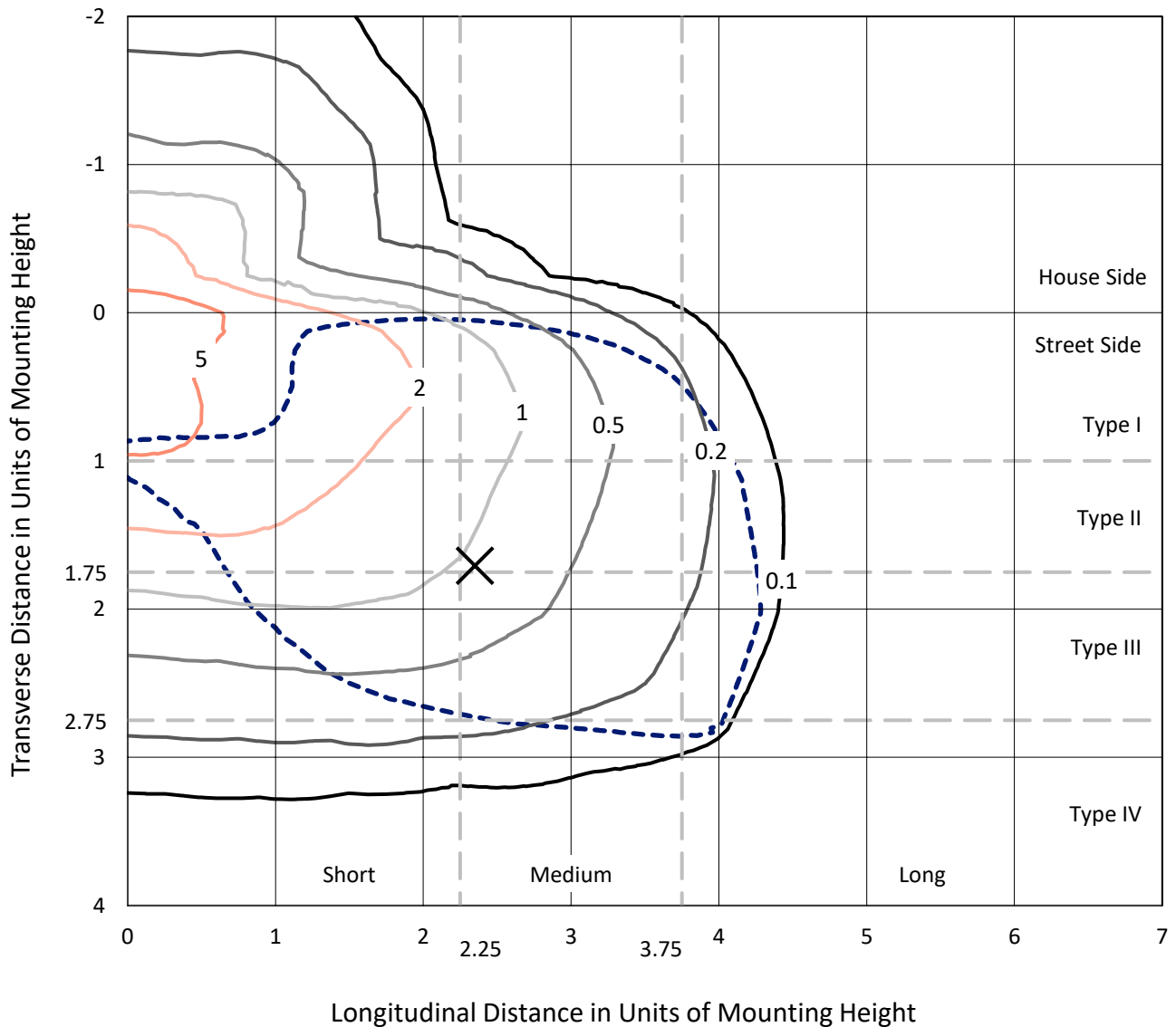
Input Watts (W): 245
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

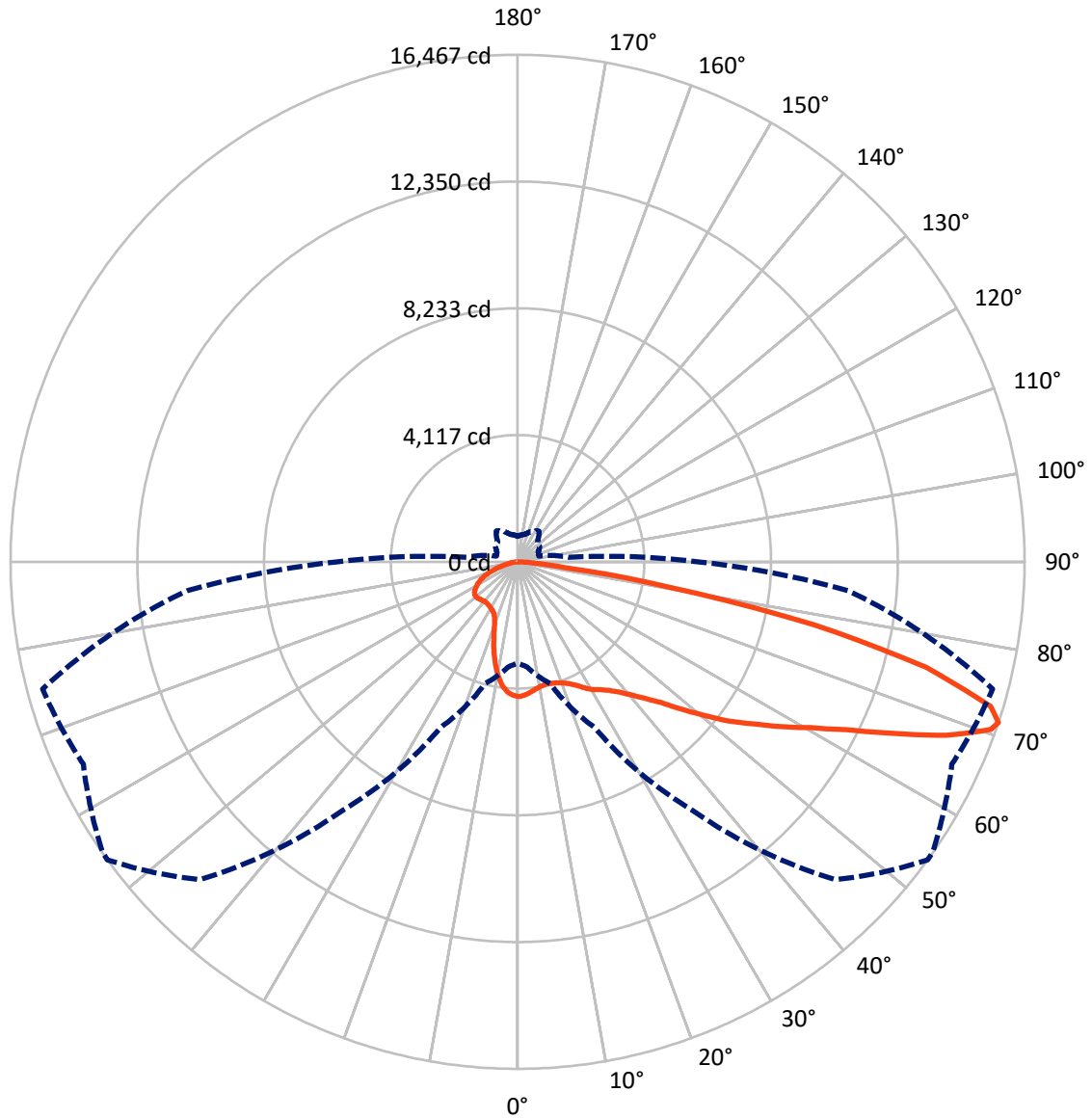
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.1 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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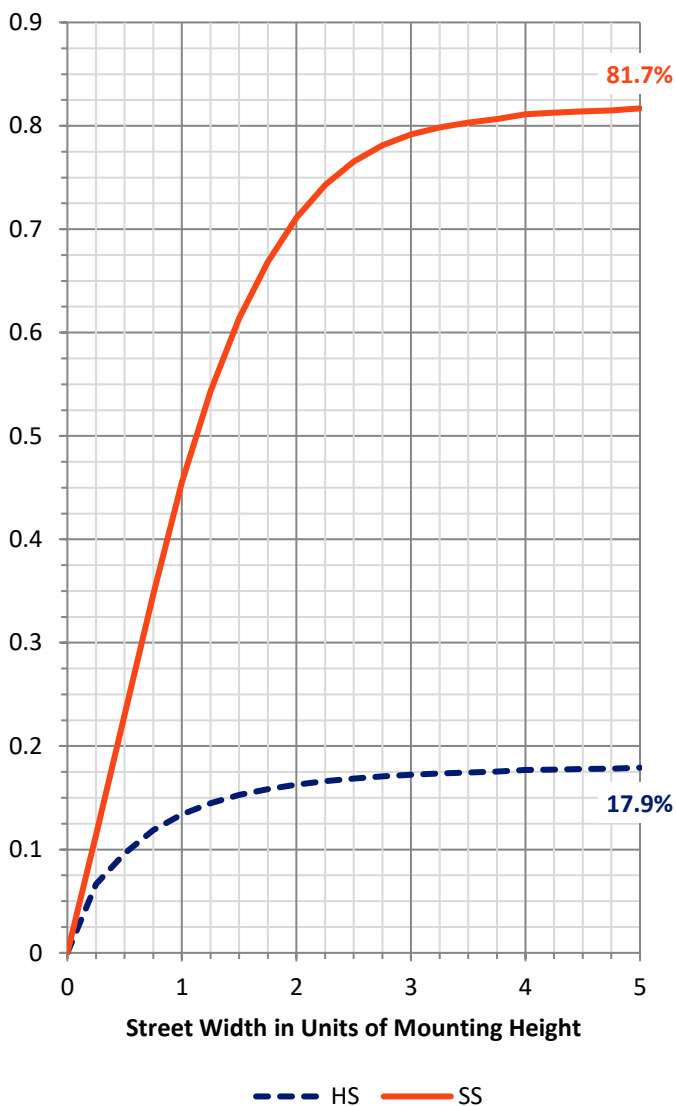
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4427.1	0.0	4427.1
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	20094.1	0.0	20094.1
	% Fixture	81.9	0.0	81.9
Total	Lumens	24521.2	0.0	24521.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	389.9	1.6
10°-20°	1029.5	4.2
20°-30°	1714.1	7.0
30°-40°	2534.6	10.3
40°-50°	3570.1	14.6
50°-60°	4780.5	19.5
60°-70°	6025.4	24.6
70°-80°	4115.3	16.8
80°-90°	361.9	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°	24521.2	100.0
0°-180°	24521.2	100.0

Coefficient of Utilization

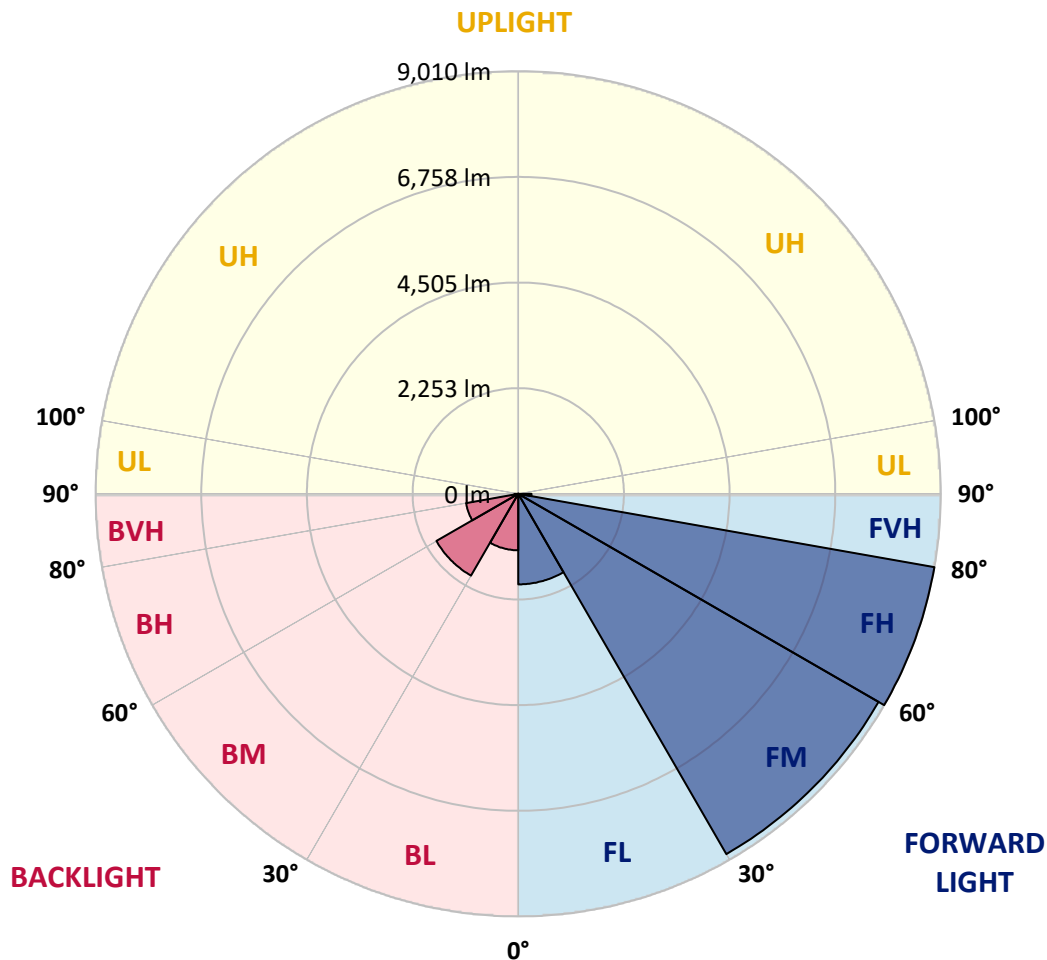


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1930.2	7.9			
FM (30°-60°)	8870.9	36.2			
FH (60°-80°)	9010.1	36.7			G4/12000
FVH (80°-90°)	282.9	1.2			G3/500
BL (0°-30°)	1203.2	4.9	B3/2500		
BM (30°-60°)	2014.2	8.2	B2/2500		
BH (60°-80°)	1130.7	4.6	B3/2500		G3/2500
BVH (80°-90°)	79.0	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°	4374.9	4374.9	4374.9	4374.9	4374.9	4374.9	4374.9	4374.9	4374.9	4374.9	4374.9
2.5°	4226.6	4246.4	4251.8	4265.0	4292.8	4315.3	4337.9	4335.2	4367.0	4380.3	4392.2
5°	4038.5	4043.8	4063.7	4090.2	4139.2	4201.4	4262.3	4263.7	4341.8	4404.1	4434.5
7.5°	3900.7	3918.0	3931.2	3959.0	4010.7	4078.3	4175.0	4182.9	4322.0	4445.2	4510.1
10°	3810.7	3830.6	3845.2	3879.6	3931.2	4006.7	4111.4	4125.9	4307.4	4510.1	4623.9
12.5°	3728.6	3748.5	3761.7	3806.7	3874.3	3967.0	4084.9	4102.1	4312.7	4585.6	4748.5
15°	3778.9	3794.8	3789.5	3802.7	3847.8	3953.8	4095.5	4112.7	4332.6	4658.4	4871.7
17.5°	4002.8	4016.0	3972.3	3922.0	3900.7	3978.9	4128.6	4147.2	4372.3	4733.9	4997.5
20°	4332.6	4368.4	4273.0	4160.4	4058.4	4069.0	4197.4	4217.3	4427.9	4809.4	5126.0
22.5°	4761.7	4788.2	4671.6	4486.2	4298.1	4201.4	4300.8	4312.7	4511.4	4907.4	5266.4
25°	5266.4	5282.3	5120.7	4882.2	4610.7	4427.9	4442.5	4463.7	4649.1	5018.6	5390.9
27.5°	5756.5	5806.8	5620.0	5328.6	4971.0	4666.4	4637.2	4650.5	4798.8	5080.9	5476.9
30°	6337.9	6333.9	6136.6	5798.8	5340.5	4925.9	4821.3	4818.7	4879.6	5111.4	5539.2
32.5°	6801.5	6855.8	6662.4	6294.2	5763.0	5194.8	4948.5	4943.2	4941.8	5164.4	5632.0
35°	7328.6	7336.6	7159.1	6788.2	6220.0	5532.6	5126.0	5099.4	5069.0	5278.3	5757.8
37.5°	7800.2	7837.3	7674.3	7258.5	6669.0	5883.6	5369.7	5352.4	5259.7	5475.7	5959.1
40°	8168.4	8196.2	8098.3	7702.2	7111.4	6262.4	5679.6	5647.9	5535.3	5798.8	6228.0
42.5°	8288.9	8345.9	8384.3	8189.6	7620.1	6711.4	6061.0	6021.3	5935.2	6288.9	6537.9
45°	8298.2	8388.3	8590.9	8600.2	8131.3	7249.2	6506.1	6478.3	6471.7	6916.7	6973.7
47.5°	8228.0	8319.5	8659.8	8843.9	8587.0	7792.3	7148.6	7104.8	7108.8	7692.9	7462.5
50°	8058.5	8167.1	8580.3	9000.2	8943.3	8356.5	7826.7	7812.1	7894.2	8579.0	7969.8
52.5°	7739.3	7870.4	8498.2	9098.2	9208.2	8842.6	8597.6	8556.5	8764.4	9540.6	8524.8
55°	6855.8	7053.2	8197.5	9152.6	9459.8	9307.5	9291.6	9365.8	9641.3	10589.7	9135.3
57.5°	6394.8	6543.2	7544.6	9161.8	9777.7	9847.9	10102.3	10120.8	10602.9	11703.6	9825.4
60°	6143.2	6274.3	7186.9	9100.9	10221.4	10516.9	10931.4	10997.6	11542.0	12910.3	10540.7
62.5°	5923.3	6035.9	6972.4	8890.3	10722.2	11508.9	12005.6	12037.4	12608.3	14242.8	11246.6
65°	5405.4	5533.9	6540.6	8679.7	11153.9	12748.6	13430.8	13393.7	13743.4	15392.4	11689.0
67.5°	4707.4	4870.3	5733.9	7952.5	11367.2	14103.7	15036.2	14989.8	14863.9	16146.1	11816.2
70°	3816.0	3903.4	4702.1	6695.5	10515.5	14815.0	16303.7	16254.7	15558.1	16245.4	11214.8
71°	3283.5	3420.0	4094.2	5947.2	9806.8	14597.7	16466.6	16453.4	15559.3	15971.2	10761.9
72.5°	2563.0	2646.5	3242.5	4608.0	8335.3	13363.2	16064.0	16114.3	15221.6	15209.7	9828.1
75°	1621.2	1658.3	2034.5	2712.6	4573.7	9463.8	13712.9	13849.4	13515.6	12449.3	7308.8
77.5°	941.7	989.4	1218.6	1598.7	1976.2	5136.6	9812.2	9960.5	9391.0	6854.5	2992.2
80°	548.3	601.3	802.7	928.5	907.3	1906.0	4996.2	5249.2	4066.4	1731.1	839.8
82.5°	304.7	340.4	564.2	565.6	483.4	622.6	1572.3	1645.1	1160.3	698.0	343.0
85°	221.2	250.3	364.3	329.8	231.8	267.6	547.0	573.5	468.9	294.0	111.3
87.5°	78.1	111.3	200.0	158.9	63.6	55.6	157.6	128.5	119.2	82.1	25.1
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°	4374.9	4374.9	4374.9	4374.9	4374.9	4374.9	4374.9	4374.9	4374.9	4374.9	4374.9
2.5°	4398.8	4401.4	4388.2	4364.4	4340.5	4310.0	4275.6	4249.1	4237.2	4235.9	4234.5
5°	4446.5	4453.1	4402.7	4328.6	4246.4	4145.8	4059.7	3961.7	3936.5	3896.8	3908.7
7.5°	4523.3	4519.3	4420.0	4262.3	4070.3	3857.1	3676.9	3572.3	3463.7	3433.2	3434.6
10°	4633.2	4608.0	4420.0	4127.3	3806.7	3490.1	3238.5	3079.5	2993.5	2921.9	2895.5
12.5°	4749.8	4686.2	4377.6	3937.9	3467.7	3079.5	2809.3	2594.8	2539.1	2480.9	2482.2
15°	4861.0	4755.1	4294.1	3671.6	3102.1	2641.1	2378.8	2250.4	2233.2	2239.8	2238.4
17.5°	4961.7	4804.1	4167.0	3374.9	2675.6	2265.0	2125.8	2135.2	2181.5	2214.6	2218.6
20°	5063.7	4833.2	3977.6	2977.6	2272.9	2037.1	2042.5	2115.3	2185.5	2230.5	2237.1
22.5°	5160.4	4846.5	3755.0	2593.5	1981.5	1940.4	2018.6	2096.7	2165.6	2209.3	2216.0
25°	5223.9	4816.0	3439.8	2192.1	1838.5	1906.0	1988.1	2054.4	2112.6	2157.6	2168.3
27.5°	5241.2	4718.0	3049.1	1867.6	1772.2	1872.9	1948.4	1997.4	2042.5	2084.8	2092.8
30°	5231.9	4573.7	2619.9	1676.9	1733.8	1834.5	1892.7	1928.5	1982.9	2015.9	2022.6
32.5°	5217.4	4405.4	2172.3	1574.8	1702.0	1798.7	1833.2	1864.9	1863.6	1850.4	1859.6
35°	5222.7	4204.1	1809.4	1513.9	1674.2	1772.2	1801.4	1761.7	1647.7	1642.4	1637.1
37.5°	5250.5	4005.4	1545.7	1471.6	1659.6	1768.2	1784.1	1601.4	1500.7	1454.3	1442.4
40°	5322.0	3773.6	1372.2	1439.8	1658.3	1798.7	1706.0	1520.6	1327.2	1237.1	1230.5
42.5°	5417.3	3545.8	1266.3	1419.9	1674.2	1845.1	1674.2	1406.7	1196.0	1143.1	1135.1
45°	5559.1	3284.8	1208.0	1410.7	1698.1	1862.3	1663.6	1323.2	1143.1	1100.7	1100.7
47.5°	5719.3	3035.8	1176.2	1404.0	1728.6	1850.4	1569.6	1296.7	1117.9	1123.2	1148.3
50°	5878.3	2820.0	1152.3	1389.4	1755.0	1843.7	1531.2	1295.4	1124.5	1192.1	1237.1
52.5°	6062.4	2667.6	1123.2	1365.6	1755.0	1801.4	1519.3	1321.9	1143.1	1162.9	1182.8
55°	6284.9	2619.9	1086.1	1314.0	1723.2	1695.4	1512.6	1360.3	1156.3	1110.0	1117.9
57.5°	6579.0	2696.7	1050.4	1249.0	1650.4	1585.5	1509.9	1370.9	1125.9	1087.4	1079.5
60°	6920.7	2849.1	1039.7	1182.8	1551.0	1491.5	1494.0	1340.4	1083.4	1043.7	1050.4
62.5°	7160.5	2940.5	1033.2	1132.5	1442.4	1388.1	1455.7	1303.4	1065.0	1030.5	1037.1
65°	7160.5	2829.2	972.2	1055.6	1302.1	1263.6	1409.3	1256.9	1041.1	1001.4	994.7
67.5°	6888.9	2504.7	879.5	940.4	1147.0	1121.9	1344.4	1201.4	1005.3	974.8	958.9
70°	6181.6	1899.4	763.0	805.3	951.0	973.5	1260.9	1125.9	945.7	908.7	884.8
71°	5870.4	1654.3	713.9	736.4	875.6	908.7	1221.2	1094.1	919.2	866.2	823.9
72.5°	5270.4	1393.4	639.8	649.0	748.4	808.0	1137.8	1033.2	868.9	793.4	745.7
75°	4004.1	1017.3	515.2	510.0	553.7	641.0	962.9	920.6	761.6	659.6	631.8
77.5°	1729.9	553.7	385.5	389.4	376.2	486.1	757.6	790.8	653.0	536.4	511.3
80°	524.5	319.2	263.6	268.9	251.7	325.8	533.8	619.9	524.5	417.3	382.8
82.5°	268.9	190.7	180.2	177.5	160.3	184.1	323.2	423.8	374.8	260.9	230.4
85°	116.6	102.0	88.7	86.1	75.5	66.2	115.3	212.0	198.6	145.7	139.1
87.5°	29.1	26.5	17.2	15.9	9.2	1.3	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)