

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: P591108

Luminaire Tested: **CTN-CA10-310-722-U-T1-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591108
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-310-722-U-T1-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25095 lumens
Efficiency: N/A
Efficacy: 80.3 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B4 - U0 - G4

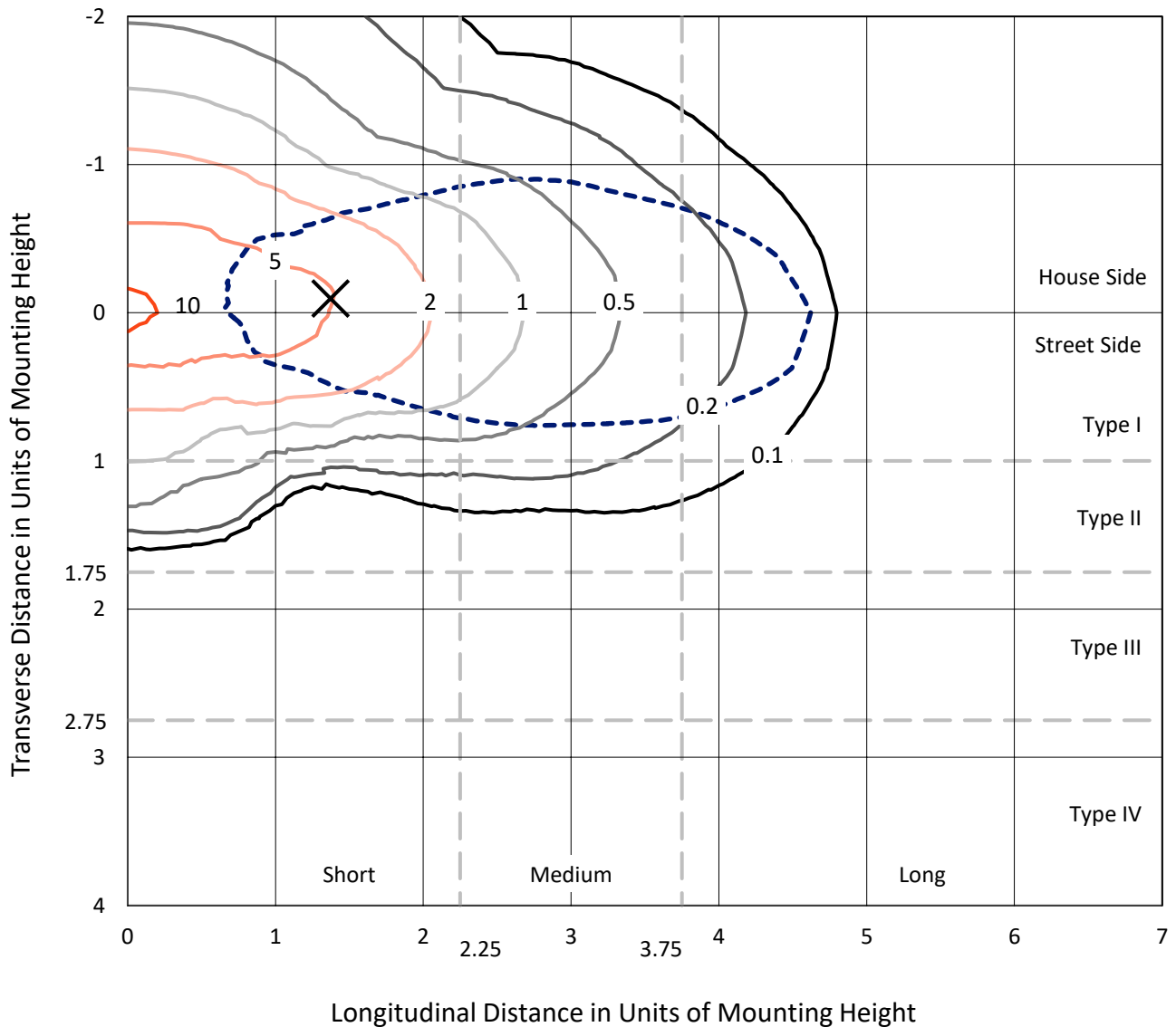
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

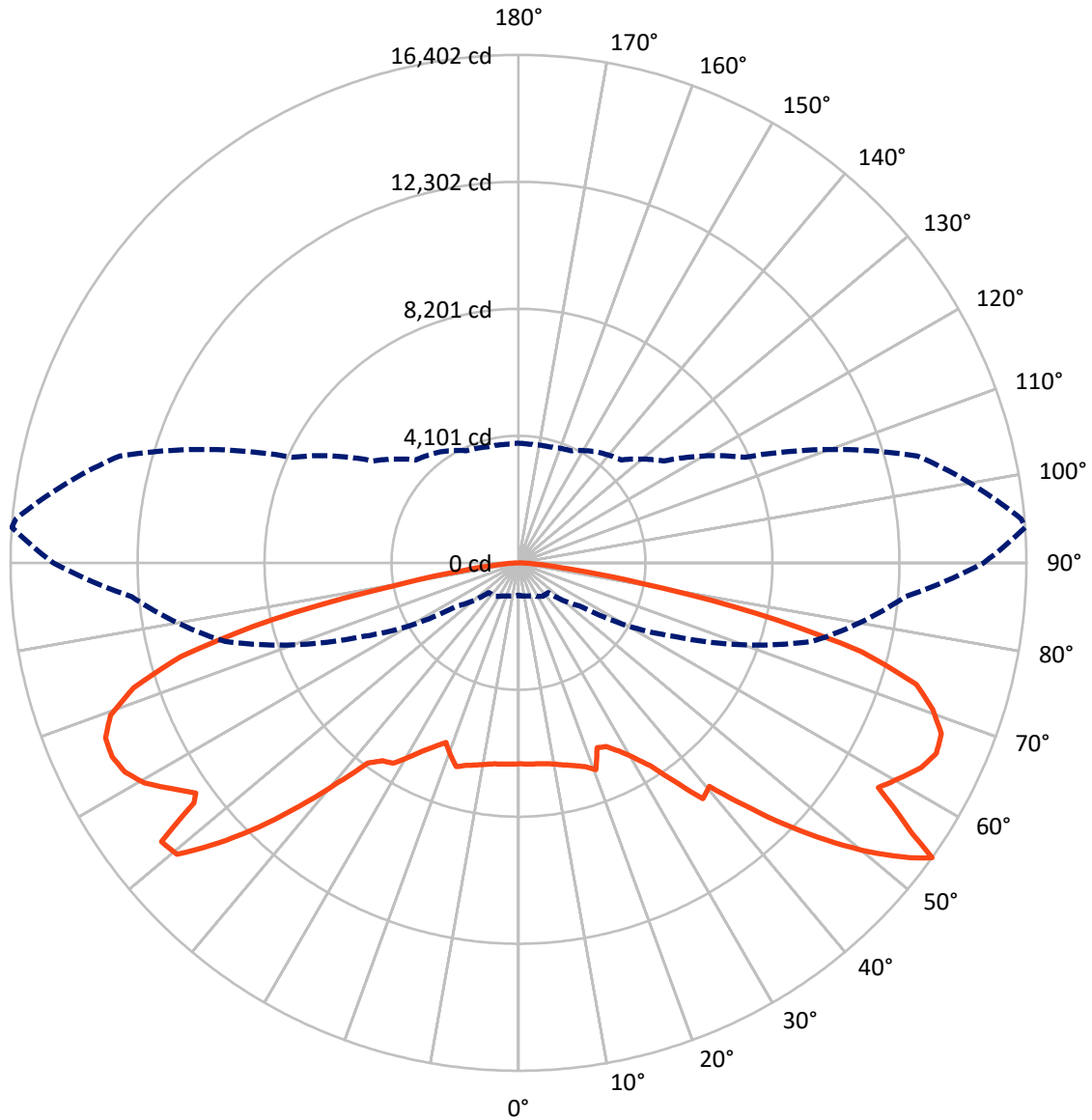
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.4 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 94-Deg Lateral - - - Horizontal Cone Through 54-Deg Vertical



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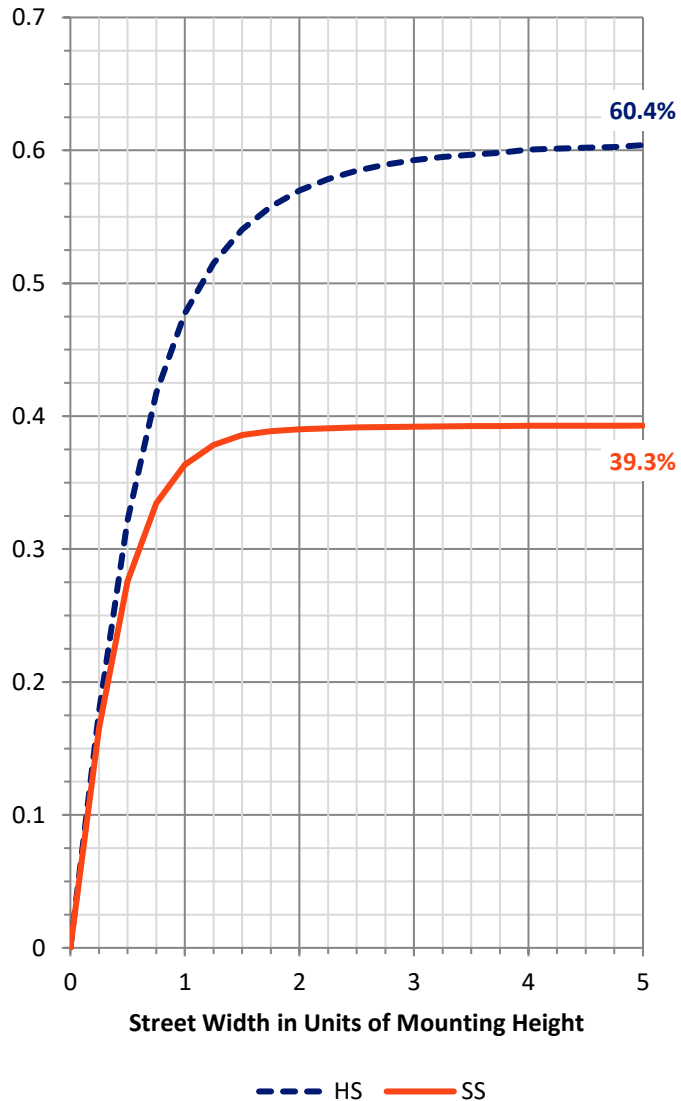
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	15284.9	0.0	15284.9
	% Fixture	60.9	0.0	60.9
Street Side	Lumens	9810.1	0.0	9810.1
	% Fixture	39.1	0.0	39.1
Total	Lumens	25095.0	0.0	25095.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	619.3	2.5
10°-20°	1771.9	7.1
20°-30°	2530.8	10.1
30°-40°	3348.5	13.3
40°-50°	4408.1	17.6
50°-60°	4863.3	19.4
60°-70°	4382.3	17.5
70°-80°	2771.5	11.0
80°-90°	399.4	1.6
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°	25095.0	100.0
0°-180°	25095.0	100.0

Coefficient of Utilization

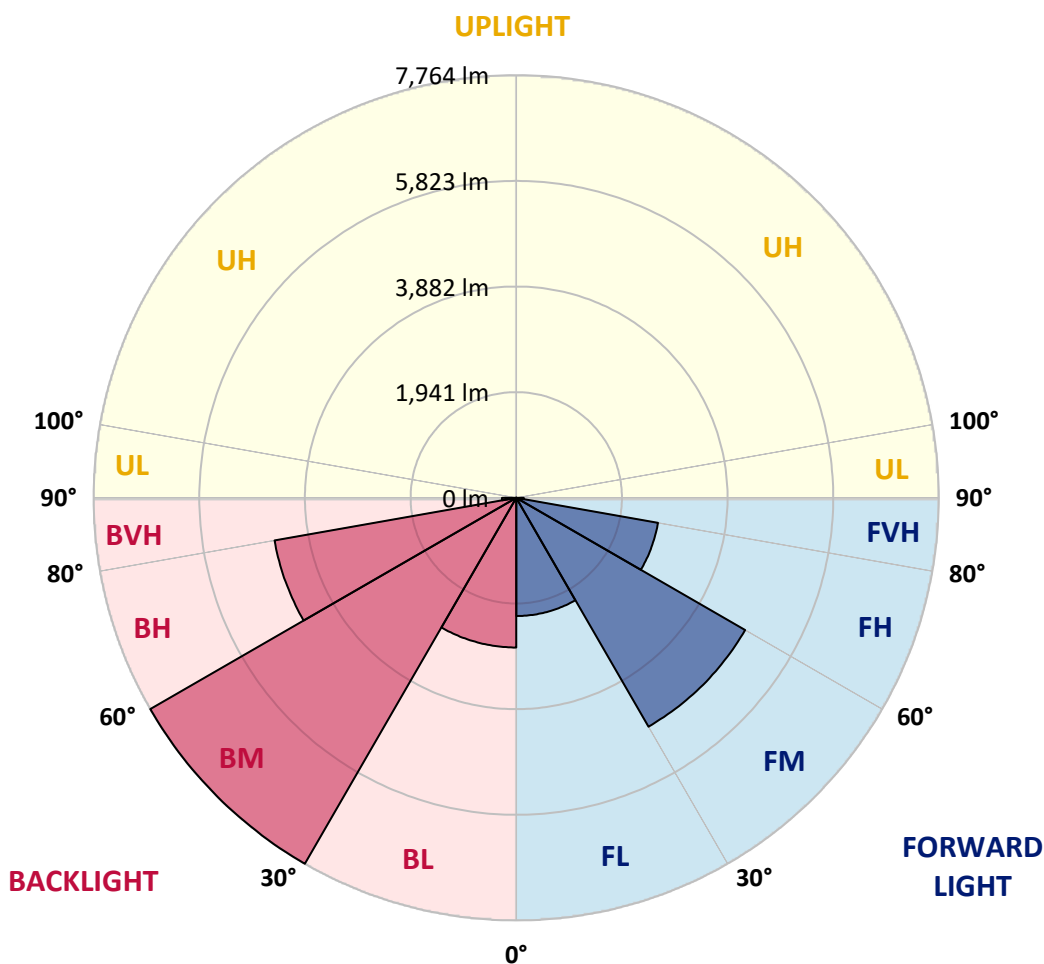


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2171.8	8.7			
FM (30°-60°)	4855.6	19.3			
FH (60°-80°)	2644.4	10.5			G2/5000
FVH (80°-90°)	138.3	0.6			G2/225
BL (0°-30°)	2750.2	11.0	B4/5000		
BM (30°-60°)	7764.3	30.9	B4/8500		
BH (60°-80°)	4509.4	18.0	B4/5000		G4/5000
BVH (80°-90°)	261.1	1.0			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4
 Type I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6488.9	6488.9	6488.9	6488.9	6488.9	6488.9	6488.9	6488.9	6488.9	6488.9	6488.9
2.5°	6501.1	6456.0	6462.1	6509.7	6408.4	6471.8	6442.5	6495.0	6474.3	6503.6	6525.5
5°	6443.8	6401.1	6412.0	6470.6	6390.1	6462.1	6420.6	6471.8	6479.2	6514.6	6535.3
7.5°	6396.2	6354.7	6362.0	6416.9	6365.7	6429.1	6404.7	6473.1	6474.3	6536.5	6552.4
10°	6348.6	6305.9	6315.6	6363.2	6330.3	6398.6	6414.5	6495.0	6513.3	6600.0	6601.2
12.5°	6247.3	6209.5	6214.3	6280.2	6281.5	6380.3	6412.0	6536.5	6574.4	6672.0	6681.8
15°	5848.2	5875.1	5977.6	6060.6	6137.4	6270.5	6379.1	6582.9	6634.2	6752.5	6780.6
17.5°	4881.6	4840.1	4616.8	4735.2	5105.0	5458.9	5646.8	6072.8	6549.9	6875.8	6912.4
20°	3423.3	3489.2	3839.4	4000.5	4264.1	4904.8	5493.1	5738.4	5893.4	6482.8	6942.9
22.5°	2715.4	2734.9	3236.5	3838.2	4035.9	4311.7	5009.8	5828.7	6071.5	6242.4	6318.1
25°	2527.5	2542.1	2622.7	3409.8	3949.2	4242.1	4548.5	5613.9	6281.5	6493.8	6584.1
27.5°	2370.0	2385.9	2465.2	2730.1	3869.9	4242.1	4590.0	5081.8	6485.3	6807.5	6884.3
30°	2252.9	2252.9	2334.6	2560.4	3243.9	4255.6	4676.6	5141.6	6168.0	7202.9	7271.2
32.5°	2145.5	2146.7	2235.8	2453.0	2810.6	4198.2	4798.7	5361.3	5921.4	7598.3	7775.2
35°	2049.1	2052.7	2133.3	2353.0	2700.8	3384.2	4934.1	5643.2	6395.0	7554.3	8541.7
37.5°	1967.3	1969.7	2039.3	2254.1	2608.0	2451.8	5022.0	5982.5	7030.8	7946.1	8701.5
40°	1908.7	1905.1	1955.1	2150.4	2472.6	2240.7	4250.7	6335.2	7786.2	9172.6	9453.3
42.5°	1850.1	1844.0	1894.1	2041.7	1691.5	2182.1	3938.3	6679.3	8656.4	10519.9	10770.1
45°	1781.8	1784.2	1833.1	1831.8	1601.2	2104.0	3972.4	5882.4	9587.5	11897.8	12216.3
47.5°	1745.2	1734.2	1758.6	1330.2	1526.7	1996.6	3957.8	5461.3	10408.9	13214.6	13530.7
50°	1676.8	1674.4	1232.6	1260.7	1452.3	1873.3	3728.4	5612.7	9392.3	14435.0	14754.8
52.5°	1574.3	1390.0	1143.5	1211.9	1377.8	1728.1	2662.9	5674.9	9366.7	14314.2	15895.9
54°	1045.9	1071.5	1106.9	1177.7	1324.1	1358.3	2435.9	5670.0	9812.1	12539.7	15023.3
55°	599.2	839.6	1077.6	1149.6	1286.3	950.7	2348.1	5644.4	10096.5	12616.6	13542.9
57.5°	518.7	521.1	593.1	959.2	660.2	815.2	2099.1	5435.7	10628.6	13323.2	13588.1
60°	45.2	43.9	50.0	68.3	86.6	190.4	1056.9	3486.7	10256.3	13929.8	14341.0
62.5°	18.3	19.5	24.4	33.0	52.5	85.4	873.8	3090.1	10413.8	14299.6	14749.9
65°	3.7	3.7	6.1	11.0	19.5	51.3	744.5	2752.0	10333.2	14420.4	15022.0
67.5°	0.0	0.0	3.7	8.5	15.9	41.5	644.4	2532.4	9873.1	14378.9	14920.7
70°	0.0	0.0	3.7	8.5	14.6	40.3	551.6	2337.1	8732.0	13944.4	14544.9
72.5°	0.0	0.0	3.7	7.3	13.4	36.6	472.3	2063.7	7401.8	12898.5	13716.2
75°	0.0	0.0	3.7	7.3	12.2	33.0	397.9	1770.8	6183.8	11116.7	12099.2
77.5°	0.0	0.0	3.7	7.3	11.0	29.3	312.4	1414.5	4856.0	8060.8	8588.0
80°	0.0	0.0	3.7	7.3	9.8	23.2	230.7	893.3	2693.4	4088.4	4305.6
82.5°	0.0	0.0	2.4	6.1	8.5	14.6	109.8	338.1	1269.2	1872.1	1816.0
85°	0.0	0.0	2.4	6.1	7.3	11.0	47.6	85.4	422.3	621.2	578.5
87.5°	0.0	0.0	2.4	4.9	6.1	7.3	12.2	14.6	134.2	179.4	185.5
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):

	94°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6488.9	6488.9	6488.9	6488.9	6488.9	6488.9	6488.9	6488.9	6488.9	6488.9	6488.9
2.5°	6510.9	6510.9	6509.7	6541.4	6501.1	6504.8	6467.0	6564.6	6553.6	6523.1	6559.7
5°	6518.2	6524.3	6523.1	6539.0	6507.2	6526.8	6474.3	6570.7	6554.8	6530.4	6568.3
7.5°	6548.7	6559.7	6551.2	6579.2	6515.8	6535.3	6481.6	6565.8	6549.9	6514.6	6554.8
10°	6614.6	6625.6	6608.5	6622.0	6554.8	6545.1	6479.2	6567.0	6532.9	6506.0	6556.0
12.5°	6700.1	6713.5	6679.3	6676.9	6591.4	6571.9	6476.7	6536.5	6486.5	6464.5	6509.7
15°	6795.2	6811.1	6770.8	6762.3	6668.3	6603.6	6467.0	6480.4	6408.4	6379.1	6426.7
17.5°	6919.7	6934.4	6903.9	6899.0	6776.9	6667.1	6453.5	6409.6	6308.3	6283.9	6309.5
20°	7128.4	7138.2	7097.9	7061.3	6881.9	6701.3	6431.6	6316.8	6161.9	6110.6	6139.9
22.5°	6487.7	6565.8	7357.9	7221.2	6960.0	6736.7	6376.6	6185.0	5967.8	5871.4	5890.9
25°	6571.9	6579.2	6879.5	7410.3	7045.4	6759.9	6312.0	6021.5	5722.5	5582.2	5606.6
27.5°	6877.0	6868.5	6750.1	7431.1	7146.7	6773.3	6231.4	5849.4	5479.6	5311.2	5317.3
30°	7272.4	7259.0	7079.6	6718.4	7292.0	6778.2	6160.6	5651.7	5263.6	5084.2	5079.4
32.5°	7813.1	7775.2	7497.0	6997.8	6678.1	6811.1	6060.6	5463.8	5057.4	4880.4	4867.0
35°	8643.0	8573.4	8066.9	7353.0	6571.9	6811.1	5923.9	5261.2	4867.0	4698.6	4688.8
37.5°	9671.8	9690.1	8795.5	7750.8	6735.4	6172.8	5760.3	5072.0	4702.2	4553.4	4553.4
40°	9487.5	9730.3	9641.2	8158.4	6903.9	6070.3	5584.6	4890.2	4565.6	4452.1	4466.7
42.5°	10704.2	10610.3	10622.5	8567.3	7022.2	5965.4	5394.2	4721.8	4444.7	4348.3	4359.3
45°	12054.0	11947.8	9724.2	8933.4	7077.2	5809.2	5201.4	4548.5	4311.7	4231.2	4260.5
47.5°	13386.7	13291.5	10678.6	8844.3	7025.9	5570.0	4963.4	4398.4	4171.4	4114.0	4157.9
50°	14676.7	14542.4	11707.4	7905.8	6844.1	5239.2	4720.5	4240.9	4049.3	4015.2	4048.1
52.5°	15827.5	15649.3	12749.6	8047.4	5978.8	4904.8	4504.5	4089.6	3938.3	3900.4	3933.4
54°	16402.3	16293.7	13331.8	8063.3	5731.1	4697.4	4375.2	3993.2	3876.0	3844.3	3862.6
55°	15423.6	15640.8	13677.1	8049.8	5551.6	4571.7	4289.7	3929.7	3832.1	3797.9	3816.2
57.5°	13696.7	13462.4	12787.5	7885.1	5063.5	4256.8	4039.6	3768.6	3701.5	3657.6	3683.2
60°	14131.1	14088.4	11673.2	7522.6	4530.2	3904.1	3793.0	3580.7	3535.5	3498.9	3533.1
62.5°	14585.1	14557.1	11851.4	6960.0	3999.3	3557.5	3509.9	3361.0	3334.2	3318.3	3326.8
65°	14830.4	14651.0	11846.5	6207.0	3512.3	3202.4	3195.0	3084.0	3096.2	3088.9	3124.3
67.5°	14726.7	14535.1	11323.0	5663.9	3054.7	2797.2	2820.4	2774.0	2819.1	2832.6	2859.4
70°	14184.8	14247.1	10181.9	5140.4	2599.5	2355.4	2428.6	2422.5	2488.4	2539.7	2582.4
72.5°	13435.5	13196.3	8534.3	4369.1	1902.6	1675.6	1802.5	1888.0	1961.2	2022.2	2062.5
75°	11435.3	11154.6	6301.0	3406.2	1377.8	1155.7	1189.9	1227.7	1275.3	1415.7	1498.7
77.5°	7839.9	7722.8	4531.4	2569.0	877.5	696.9	829.9	905.5	945.8	939.7	954.4
80°	4020.0	3999.3	2682.5	1536.5	591.9	510.1	604.1	611.4	676.1	726.1	728.6
82.5°	1620.7	1701.3	1071.5	842.1	411.3	385.6	425.9	479.6	534.5	563.8	571.2
85°	573.6	560.2	325.8	395.4	261.2	269.7	301.4	362.5	419.8	427.1	411.3
87.5°	153.8	159.9	69.6	145.2	142.8	156.2	173.3	197.7	239.2	251.4	239.2
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)