

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: P232786

Luminaire Tested: **CTN-8-4-D-E1-T2-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232786
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-7)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-8-4-D-E1-T2-7030
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 3000K LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 41937 lumens
Efficiency: N/A
Efficacy: 129.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B4 - U0 - G4

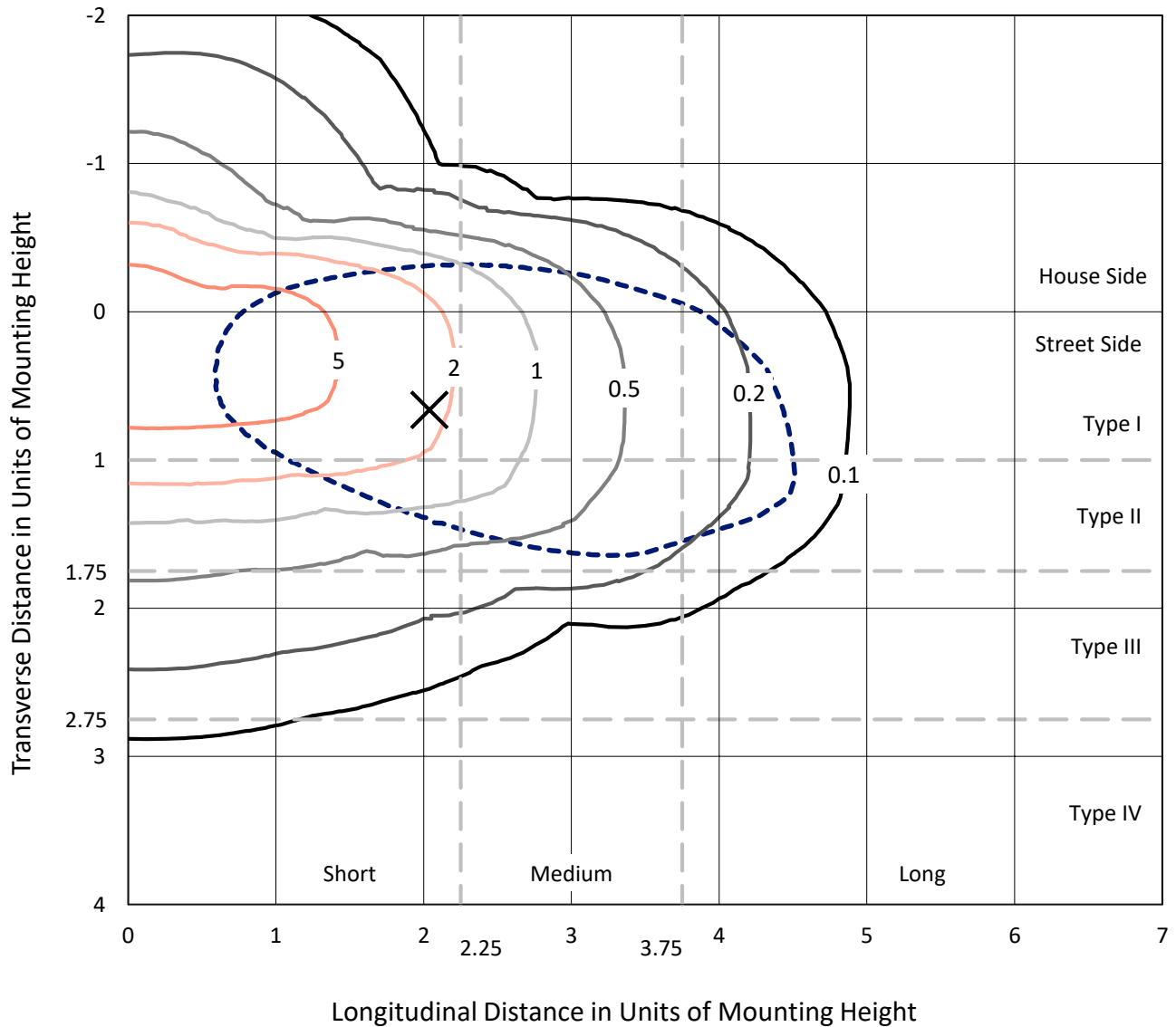
Input Watts (W): 325
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

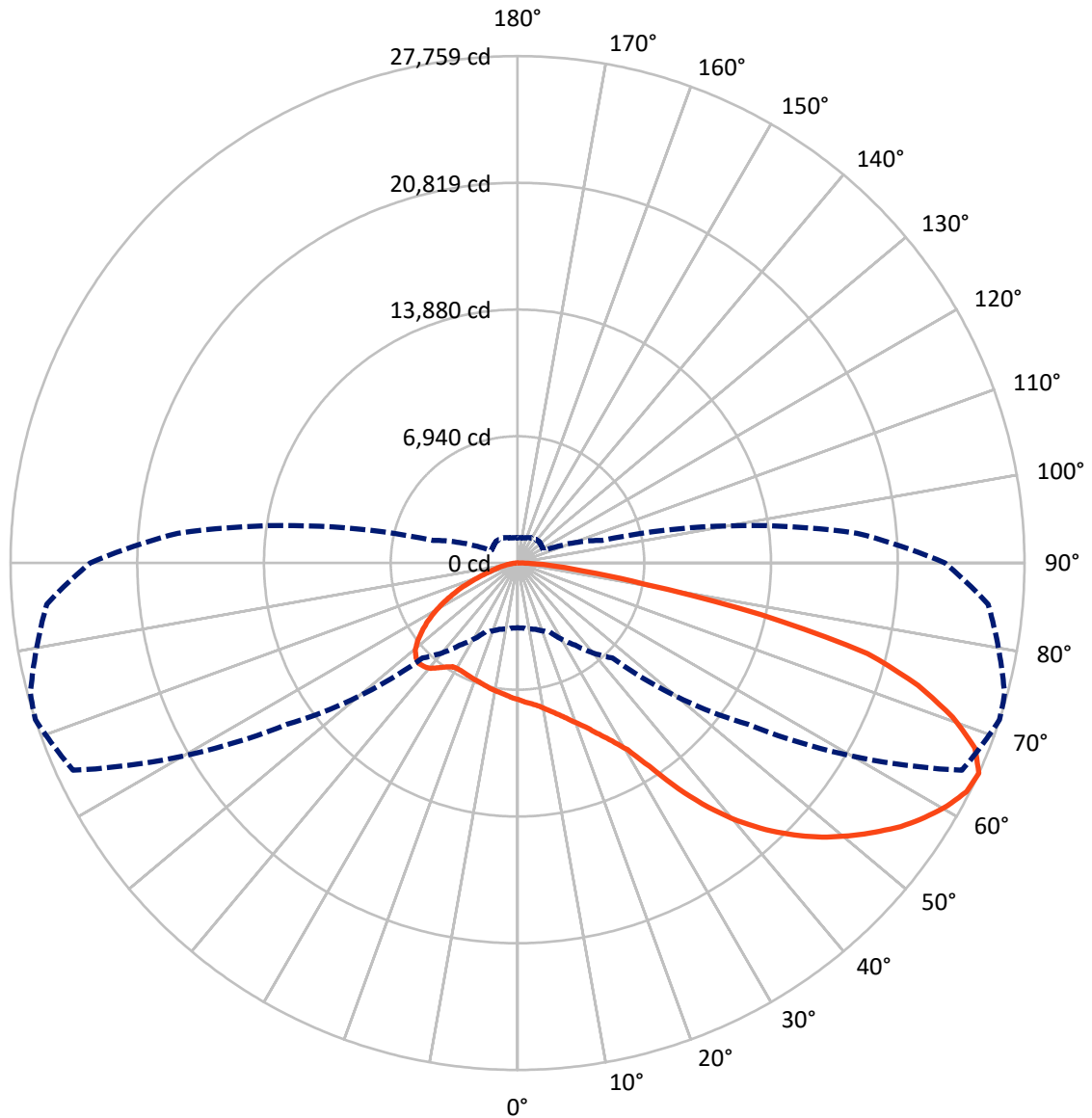
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.7 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 72-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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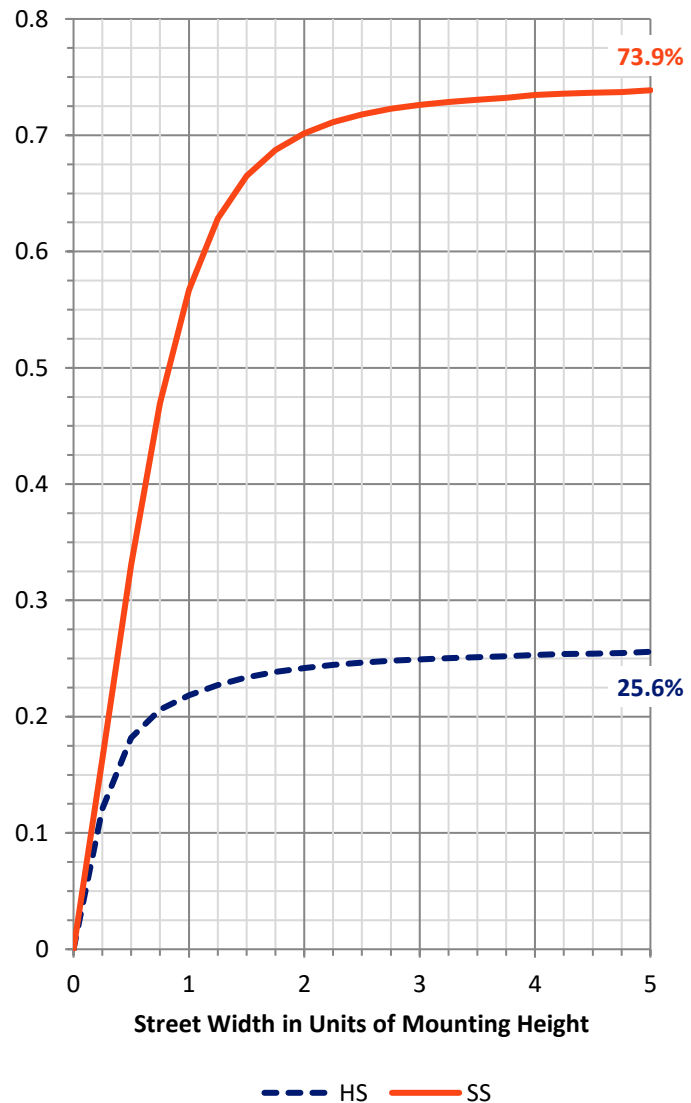
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10924.2	0.0	10924.2
	% Fixture	26.0	0.0	26.0
Street Side	Lumens	31012.8	0.0	31012.8
	% Fixture	74.0	0.0	74.0
Total	Lumens	41937.0	0.0	41937.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	719.8	1.7
10°-20°	2193.8	5.2
20°-30°	3674.7	8.8
30°-40°	5333.9	12.7
40°-50°	7212.5	17.2
50°-60°	8419.0	20.1
60°-70°	8382.6	20.0
70°-80°	5083.1	12.1
80°-90°	917.6	2.2
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°	41937.0	100.0
0°-180°	41937.0	100.0



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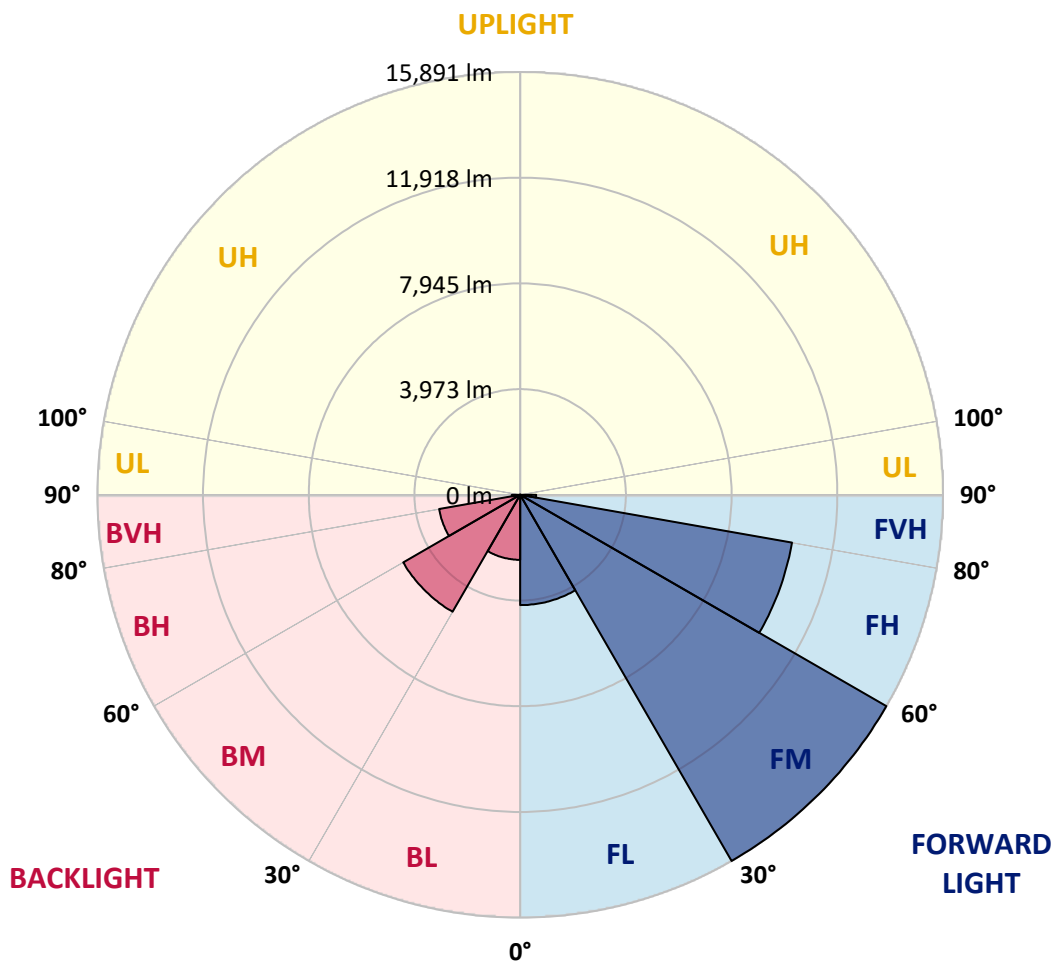
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4144.9	9.9			
FM	(30°-60°)	15890.9	37.9			
FH	(60°-80°)	10373.5	24.7			G4/12000
FVH	(80°-90°)	603.6	1.4			G4/750
BL	(0°-30°)	2443.5	5.8	B3/2500		
BM	(30°-60°)	5074.6	12.1	B4/8500		
BH	(60°-80°)	3092.2	7.4	B4/5000		G4/5000
BVH	(80°-90°)	314.0	0.7			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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	72°	75°	85°
0°	7485.5	7485.5	7485.5	7485.5	7485.5	7485.5	7485.5	7485.5	7485.5	7485.5	7485.5
2.5°	7874.9	7859.9	7864.9	7872.2	7782.7	7767.8	7693.8	7656.1	7614.8	7585.8	7520.4
5°	8280.2	8278.8	8246.6	8247.1	8106.8	8052.8	7916.2	7815.4	7727.8	7682.4	7546.3
7.5°	8647.9	8609.7	8606.5	8597.5	8439.1	8352.8	8171.7	8018.8	7884.9	7815.0	7603.9
10°	8993.3	8966.5	8966.9	8956.0	8793.5	8686.0	8468.1	8275.7	8096.8	8006.5	7699.2
12.5°	9361.8	9331.4	9326.4	9288.3	9139.0	9035.5	8797.2	8560.7	8344.2	8242.1	7843.6
15°	9739.9	9710.8	9696.3	9652.3	9485.7	9375.4	9175.7	8883.4	8637.0	8509.9	8033.3
17.5°	10088.5	10070.8	10046.3	10012.2	9866.5	9745.8	9546.1	9268.3	8973.7	8811.2	8251.6
20°	10303.6	10288.2	10304.5	10304.5	10220.6	10133.0	9931.9	9693.6	9375.4	9174.4	8502.6
22.5°	10468.4	10452.5	10525.1	10561.9	10570.5	10551.0	10353.5	10145.7	9814.3	9606.9	8813.1
25°	10508.8	10510.6	10633.6	10798.8	10921.4	10978.5	10826.5	10673.5	10387.6	10128.0	9237.4
27.5°	10497.0	10508.8	10666.3	10961.3	11255.0	11393.8	11338.9	11250.0	11023.5	10802.4	9804.3
30°	10479.7	10510.6	10718.5	11081.1	11506.0	11781.0	11835.9	11970.7	11859.5	11708.8	10703.5
32.5°	10265.5	10293.2	10590.9	11125.6	11719.7	12219.0	12514.5	13085.9	13267.0	13237.5	12095.1
35°	9764.0	9818.4	10260.0	11009.0	11884.5	12665.2	13366.4	14562.9	15189.7	15139.3	13700.5
37.5°	9252.9	9319.6	9849.3	10791.5	11958.9	13139.9	14298.7	16214.1	16971.6	16898.1	15243.2
40°	8789.5	8866.2	9400.8	10465.7	11939.0	13583.8	15278.2	17765.9	18558.4	18427.7	16619.0
42.5°	8253.9	8365.1	8852.1	10031.3	11783.3	13896.6	16247.2	19248.8	19966.4	19766.6	17870.8
45°	7755.1	7844.5	8312.4	9436.2	11545.9	14126.7	17133.7	20622.7	21246.8	21013.9	19024.1
47.5°	7214.5	7328.0	7798.2	8824.0	11074.3	14178.4	17945.2	21843.2	22430.5	22188.1	20099.8
50°	5788.4	5971.3	7033.4	8224.8	10342.2	13990.5	18666.0	22987.9	23494.4	23302.9	21212.7
52.5°	5046.7	5082.6	5620.0	7537.2	9450.8	13499.0	19186.1	24110.8	24494.8	24299.6	22197.6
55°	4714.9	4724.9	4965.5	6379.3	8586.1	12562.6	19438.0	25186.0	25474.7	25204.2	23129.9
57.5°	4374.1	4429.9	4671.8	5383.5	7773.2	11211.4	19263.3	26126.5	26298.5	25993.9	23985.9
60°	4092.2	4137.6	4379.1	4862.5	6881.3	9640.5	18449.0	26875.8	27027.4	26716.5	24789.3
62.5°	3836.7	3869.8	4056.8	4509.8	6075.7	8247.5	16929.4	27076.4	27585.2	27337.9	25531.9
65°	3546.6	3577.1	3750.4	4154.4	5486.1	7356.1	15400.7	26850.9	27759.1	27609.3	25865.9
67.5°	3202.2	3243.0	3399.6	3747.7	4878.8	6588.6	13596.1	26278.5	27017.4	26787.3	25145.6
70°	2749.6	2816.3	2993.8	3295.7	4169.4	5599.6	10846.0	24397.2	25275.0	25012.2	23222.1
72.5°	2167.7	2182.3	2310.7	2561.7	3302.0	4454.4	7319.8	20644.0	22936.6	22862.1	20541.9
75°	1616.3	1665.8	1871.8	2065.2	2412.4	3195.8	4449.4	15046.3	19802.5	19802.5	17312.0
77.5°	1319.0	1344.9	1481.9	1644.4	1881.3	2242.6	2828.6	8501.7	13649.2	15033.5	13012.4
80°	1030.8	1021.7	1031.2	1104.3	1328.1	1482.8	1880.4	4369.5	7051.5	8015.6	8523.9
82.5°	564.6	565.1	626.8	591.0	732.6	833.3	1140.6	2457.8	3684.6	4091.3	4566.5
85°	285.9	279.1	310.9	290.0	339.1	380.4	517.9	1220.9	1880.4	2038.4	2151.9
87.5°	102.1	97.1	111.7	133.9	125.3	133.0	178.8	438.9	726.7	777.5	762.1
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°	7485.5	7485.5	7485.5	7485.5	7485.5	7485.5	7485.5	7485.5	7485.5	7485.5	7485.5
2.5°	7501.8	7458.2	7405.6	7361.5	7268.5	7219.9	7181.4	7192.2	7150.5	7090.1	7089.2
5°	7496.8	7413.7	7300.7	7207.2	7057.4	6980.3	6907.7	6888.6	6826.4	6766.5	6763.3
7.5°	7514.0	7403.8	7220.4	7071.1	6875.9	6755.6	6643.0	6599.0	6525.9	6462.9	6459.7
10°	7561.7	7416.0	7165.0	6958.0	6713.9	6549.1	6403.4	6314.9	6230.5	6165.6	6164.7
12.5°	7647.0	7452.3	7116.4	6846.4	6556.4	6338.0	6151.9	6037.6	5919.6	5871.4	5868.7
15°	7767.3	7505.4	7053.4	6698.0	6362.5	6113.8	5883.7	5732.6	5601.8	5555.5	5565.5
17.5°	7921.6	7592.1	7002.5	6534.1	6148.8	5848.7	5609.6	5457.5	5265.1	5222.4	5234.2
20°	8113.2	7726.0	6991.6	6384.3	5914.6	5557.4	5263.7	5156.1	4912.4	4855.2	4847.5
22.5°	8361.0	7884.0	6987.1	6224.1	5640.0	5222.4	4874.3	4737.6	4532.9	4436.7	4414.9
25°	8667.8	8066.9	6979.4	6063.9	5334.0	4840.7	4417.2	4225.2	4097.2	3951.5	3948.3
27.5°	9071.8	8312.4	6997.5	5905.0	5000.4	4395.4	3926.5	3693.7	3620.2	3525.8	3476.8
30°	9768.0	8750.0	7047.0	5713.0	4635.5	3883.0	3389.2	3212.6	3122.3	3026.5	3010.2
32.5°	10936.8	9696.8	7200.0	5505.2	4229.3	3328.8	2949.3	2764.6	2614.8	2565.4	2552.2
35°	12400.6	10821.0	7593.0	5282.8	3789.9	2889.9	2587.1	2343.4	2200.4	2188.6	2187.7
37.5°	13715.5	12020.2	8105.5	5008.6	3305.6	2576.7	2227.7	2017.5	1909.9	1920.8	1949.4
40°	14987.2	13084.1	8648.8	4735.4	2835.4	2245.4	1878.6	1777.9	1729.8	1768.8	1787.8
42.5°	16181.9	14055.9	9040.0	4364.5	2428.3	1889.5	1638.1	1697.5	1714.8	1747.0	1760.2
45°	17298.4	15051.7	9330.9	3917.9	2062.0	1638.5	1603.6	1706.1	1755.2	1780.1	1778.8
47.5°	18378.7	16003.5	9418.1	3327.4	1778.8	1610.8	1635.3	1693.9	1770.6	1816.4	1813.3
50°	19456.6	16869.5	9345.0	2727.4	1721.6	1664.4	1665.8	1656.2	1745.6	1782.9	1768.8
52.5°	20423.0	17678.3	8932.0	2282.6	1759.7	1720.7	1701.6	1653.5	1678.9	1704.8	1692.1
55°	21291.7	18353.3	8284.3	2063.4	1792.4	1757.0	1782.4	1688.9	1638.5	1616.7	1620.8
57.5°	22100.1	18873.9	7539.9	1927.2	1785.6	1748.4	1814.6	1679.4	1605.8	1514.2	1496.5
60°	22866.7	19215.6	6701.6	1809.6	1753.4	1735.7	1744.7	1679.8	1575.4	1456.5	1427.5
62.5°	23408.6	19233.8	5739.4	1704.8	1691.2	1716.1	1689.8	1666.7	1583.6	1493.3	1475.1
65°	23397.7	18668.7	4787.6	1584.5	1613.6	1663.9	1618.6	1541.8	1416.1	1389.3	1380.3
67.5°	22382.4	17238.5	3864.4	1406.1	1487.8	1593.6	1516.4	1391.6	1283.1	1251.4	1257.3
70°	20174.7	15216.5	2854.0	1139.7	1299.0	1473.8	1425.6	1286.8	1167.8	1142.9	1169.7
72.5°	17558.0	13071.4	2028.9	903.7	1078.9	1304.0	1284.9	1165.1	1060.7	1071.2	1095.2
75°	14658.6	10405.3	1488.3	777.5	846.9	1111.6	1159.7	1083.0	1016.7	1049.8	1048.9
77.5°	10925.0	7684.3	1133.3	652.2	701.3	865.1	1022.1	993.1	1173.7	1426.6	1434.7
80°	7179.1	4989.1	764.8	535.6	573.7	649.1	834.2	956.8	1201.9	1041.7	1029.0
82.5°	3977.8	2648.0	474.3	416.7	430.7	470.7	604.6	999.0	882.8	819.3	822.4
85°	1763.8	1025.3	280.0	279.6	280.5	285.5	388.1	757.5	620.9	601.4	611.4
87.5°	610.9	270.1	88.1	69.9	79.0	98.9	202.0	462.1	324.1	268.7	269.6
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)