

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: P591415

Luminaire Tested: **CTN-CA10-630-740-U-T3-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591415
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-7)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-630-740-U-T3-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 63909 lumens
Efficiency: N/A
Efficacy: 101.2 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type III - Medium
BUG Rating: B5 - U0 - G5

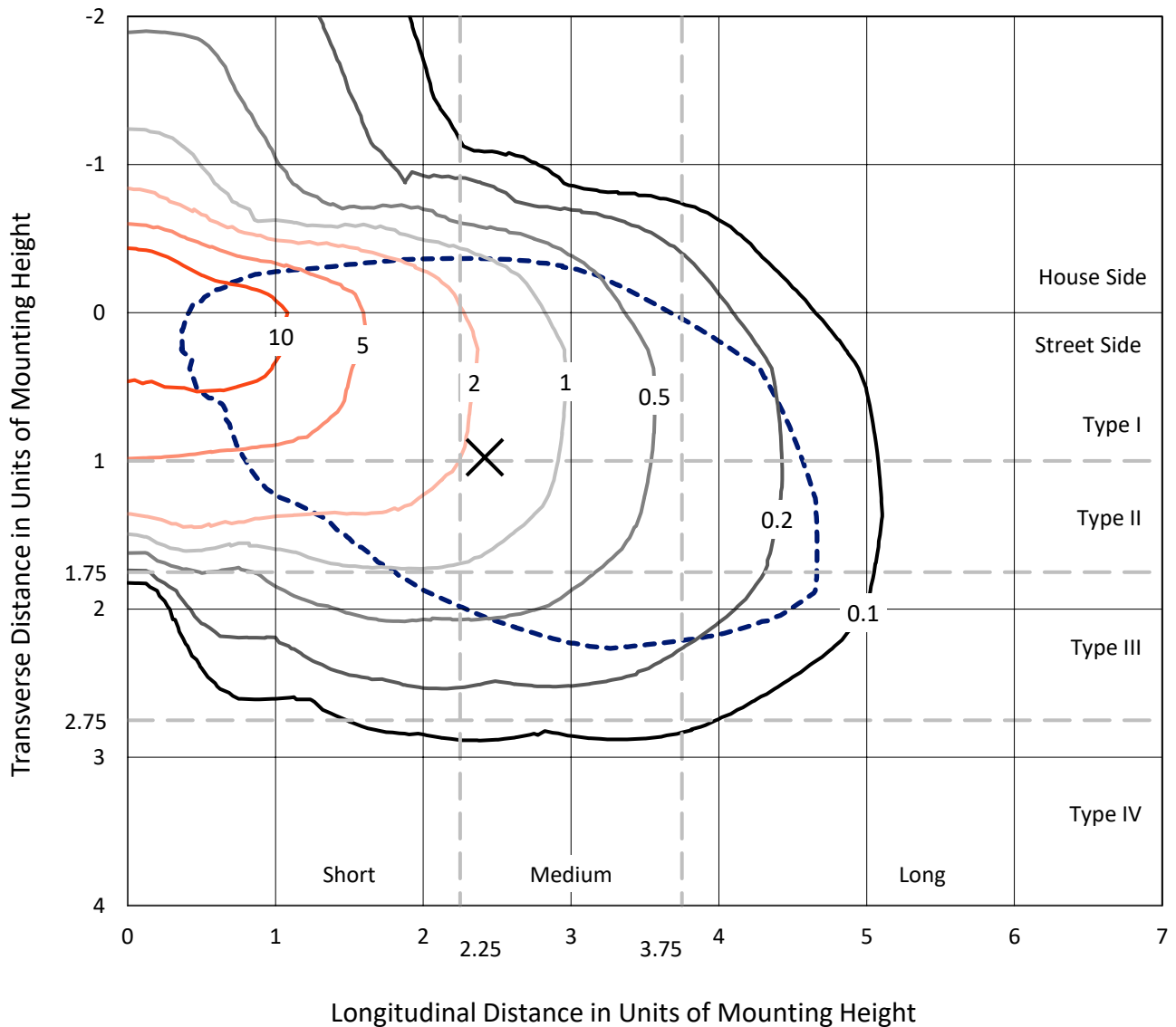
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

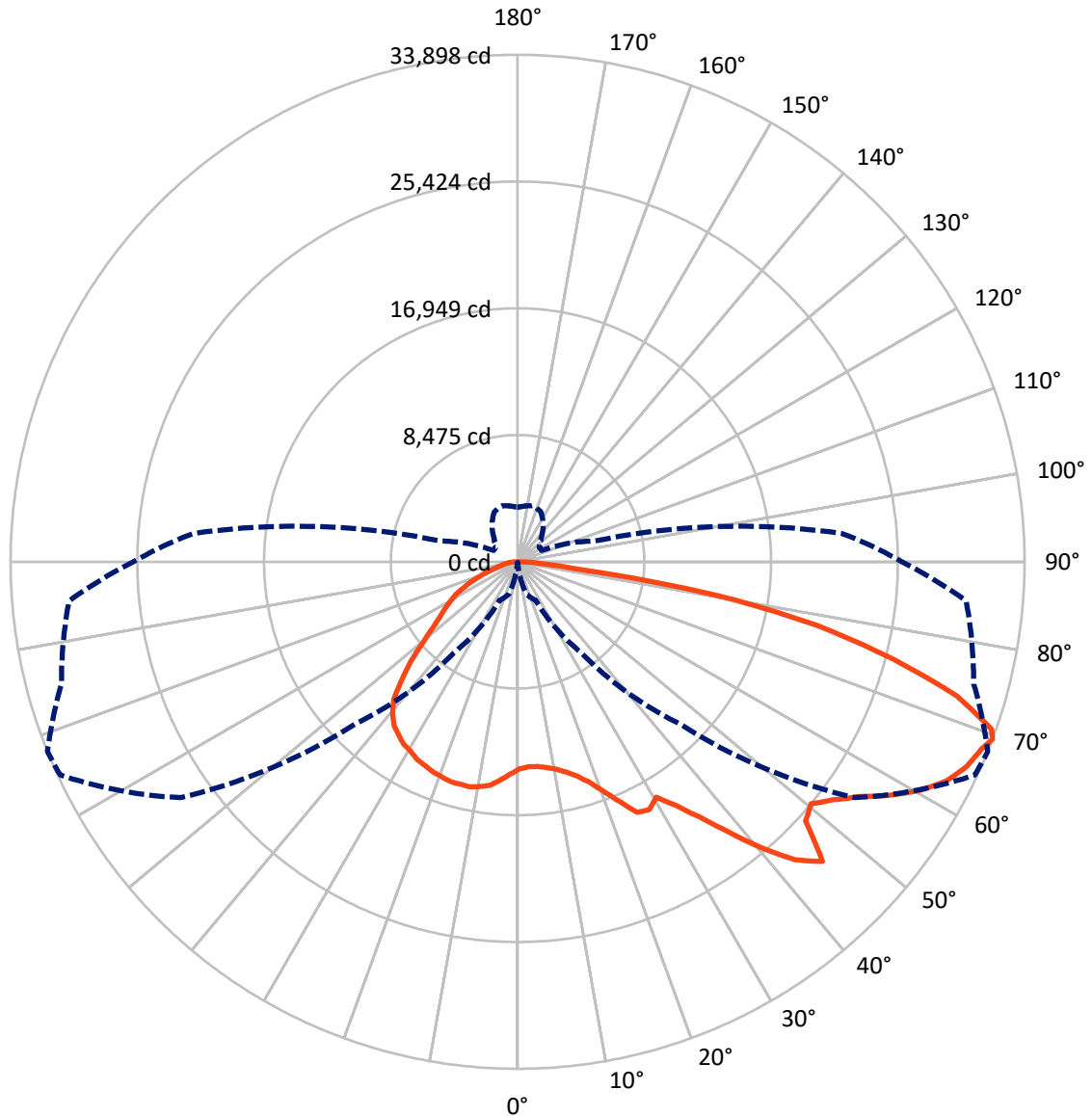
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 17.1 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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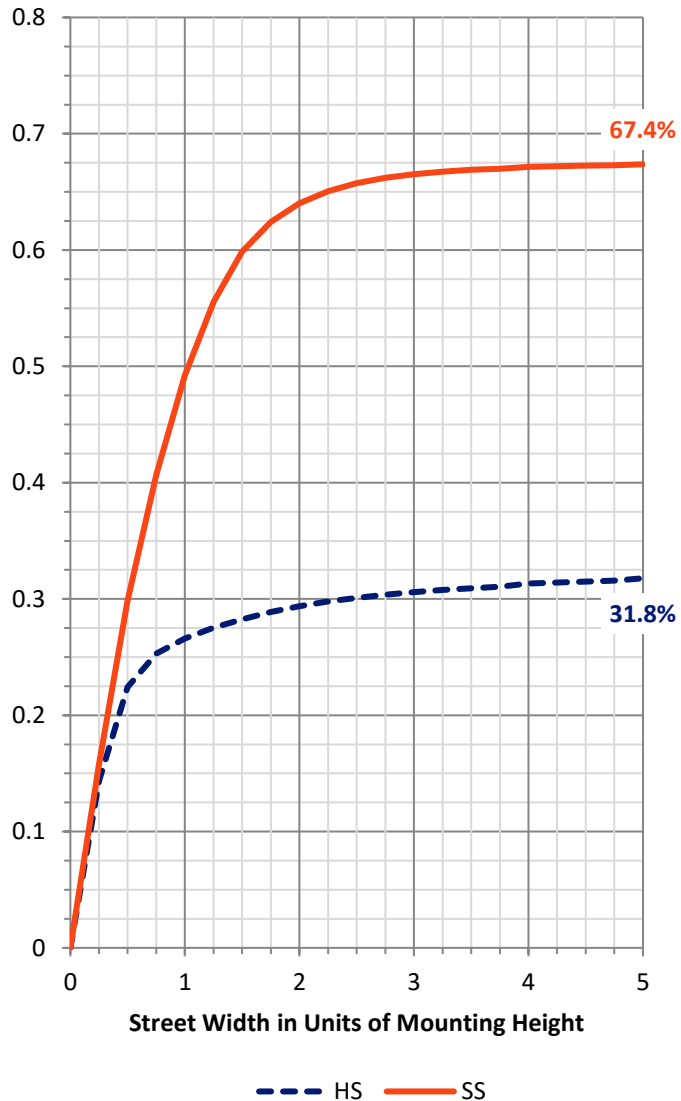
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	20846.2	0.0	20846.2
	% Fixture	32.6	0.0	32.6
Street Side	Lumens	43062.8	0.0	43062.8
	% Fixture	67.4	0.0	67.4
Total	Lumens	63909.0	0.0	63909.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1383.7	2.2
10°-20°	4281.1	6.7
20°-30°	6582.2	10.3
30°-40°	8548.9	13.4
40°-50°	10552.5	16.5
50°-60°	11851.4	18.5
60°-70°	11582.4	18.1
70°-80°	7777.9	12.2
80°-90°	1349.0	2.1
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°	63909.0	100.0
0°-180°	63909.0	100.0

Coefficient of Utilization

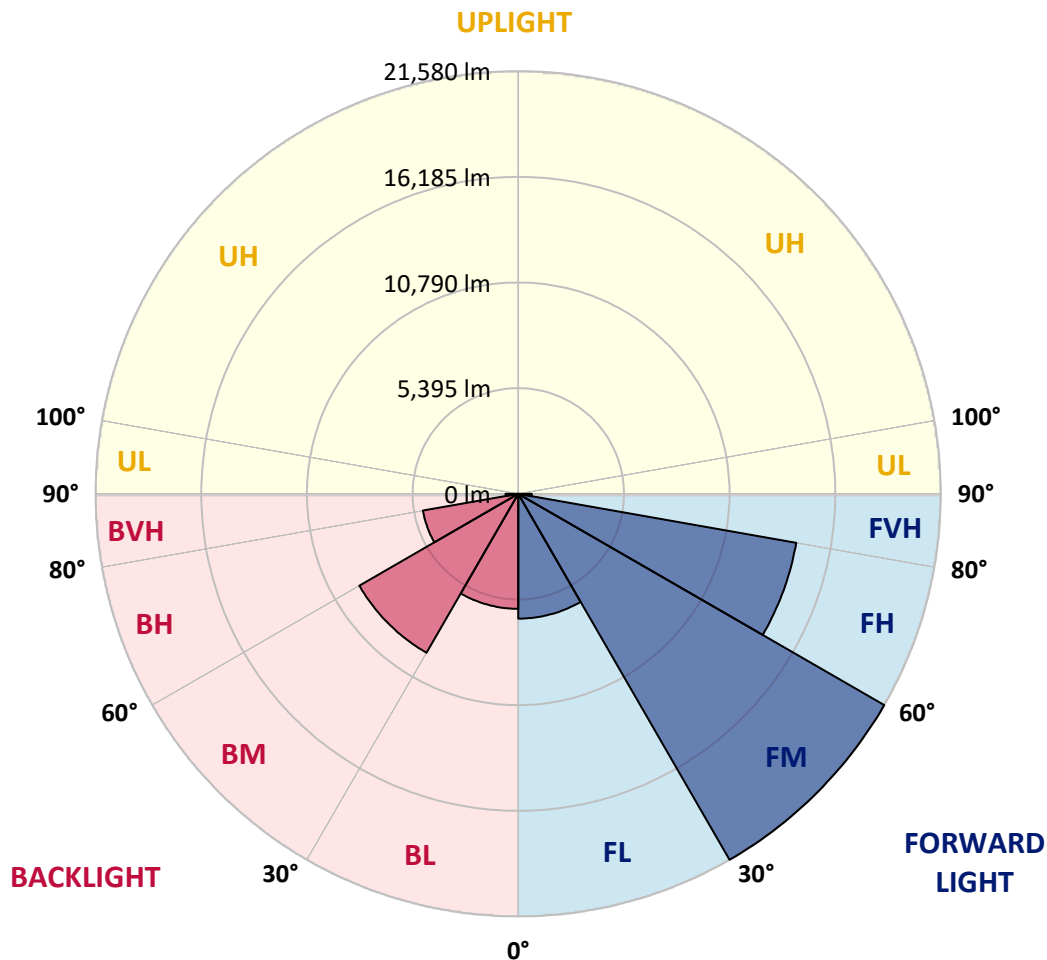


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	6372.3	10.0			
FM (30°-60°)	21580.5	33.8			
FH (60°-80°)	14414.7	22.6			G5
FVH (80°-90°)	695.3	1.1			G4/750
BL (0°-30°)	5874.6	9.2	B5		
BM (30°-60°)	9372.3	14.7	B5		
BH (60°-80°)	4945.5	7.7	B4/5000		G4/5000
BVH (80°-90°)	653.7	1.0			G4/750
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5
 Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	13853.6	13853.6	13853.6	13853.6	13853.6	13853.6	13853.6	13853.6	13853.6	13853.6	13853.6
2.5°	13574.1	13491.4	13522.8	13636.8	13405.8	13557.0	13485.7	13639.7	13719.5	13685.3	13902.0
5°	13702.4	13611.2	13616.9	13696.7	13448.6	13576.9	13497.1	13662.5	13750.9	13702.4	13993.3
7.5°	14093.1	13993.3	13964.8	13959.1	13725.2	13822.2	13662.5	13796.5	13887.8	13862.1	14190.1
10°	14692.0	14572.2	14518.0	14486.6	14207.2	14178.7	13979.0	14038.9	14107.4	14135.9	14489.5
12.5°	15350.7	15188.2	15153.9	15059.8	14700.5	14637.8	14395.4	14423.9	14423.9	14489.5	14840.3
15°	15909.6	15775.6	15775.6	15678.7	15327.9	15239.5	14905.8	14871.6	14865.9	14917.2	15230.9
17.5°	15550.3	15476.2	15410.6	15362.1	14820.3	14677.7	15581.7	15521.8	15493.3	15544.6	15727.1
20°	14344.1	14543.7	14121.6	13525.6	13611.2	15327.9	16451.5	16343.1	16360.2	16411.5	16360.2
22.5°	12624.5	12131.1	12906.8	13120.7	13477.1	14746.1	17244.2	17358.3	17392.5	17395.4	17127.3
25°	10819.4	11093.1	12145.4	13776.6	13730.9	14788.9	16762.3	18384.9	18556.0	18538.9	18074.1
27.5°	11338.4	11287.0	12099.8	13172.0	14526.6	15695.8	17058.9	17780.4	18761.3	19847.8	19217.6
30°	11791.8	11749.0	11834.6	13334.6	15051.3	16602.6	18168.2	18051.3	18259.4	20227.1	20566.5
32.5°	12196.7	12165.4	12265.2	12430.6	14178.7	17580.7	19357.3	19334.5	19405.8	19559.8	22157.7
35°	12578.9	12581.7	12704.3	12975.2	14289.9	17783.2	20532.2	20774.6	20962.9	21302.2	21884.0
37.5°	12841.2	12846.9	12943.9	13271.8	13822.2	16782.3	21721.4	22585.5	22922.0	23532.2	22708.1
40°	12838.4	12881.1	13115.0	13542.7	14278.5	16120.7	22089.3	24638.7	25180.5	25625.4	24239.5
42.5°	12570.3	12593.1	13029.4	13802.2	14683.4	16622.6	20945.7	26640.6	27242.3	27119.7	25505.6
45°	12325.1	12319.3	12815.5	13768.0	15045.6	17312.7	21099.7	26583.6	28582.6	28434.3	26669.1
47.5°	11997.1	12005.7	12530.4	13619.7	15376.4	18051.3	22240.4	24173.9	25904.8	29563.6	27615.9
50°	11586.5	11637.8	12171.1	13394.4	15541.8	18741.4	23227.1	25231.8	25437.2	26552.2	28542.7
52.5°	10904.9	10813.6	11786.1	13134.9	15658.7	19243.3	24168.2	26247.1	26441.0	26036.0	29486.6
55°	6191.0	7682.5	11304.1	12832.7	15692.9	19545.6	24898.2	27402.0	27704.3	27322.1	30253.7
57.5°	3889.7	4009.5	9792.7	12031.3	15404.9	19733.8	25793.6	28987.5	29435.3	28525.6	30835.4
60°	1377.4	1485.7	4762.3	5523.7	12627.3	19214.8	27156.7	30855.4	31003.7	29657.7	31263.2
62.5°	145.4	191.1	3228.1	4055.1	9804.1	17731.9	28097.8	32358.2	32224.2	30496.1	31494.2
65°	51.3	71.3	2837.4	3627.4	9125.4	17269.9	28408.6	32999.9	32997.0	31032.2	31328.8
67.5°	39.9	54.2	2466.7	3151.1	8144.5	16280.4	27892.5	33481.8	33436.2	31562.6	30892.5
69°	39.9	57.0	2221.5	2840.3	7434.4	15333.6	27493.2	33735.6	33898.2	31571.2	30102.6
70°	39.9	57.0	2064.6	2623.6	6855.5	14466.7	26920.1	33541.7	33624.4	31297.4	29284.1
72.5°	39.9	57.0	1599.8	2030.4	5212.9	11135.9	23583.6	30564.5	30721.4	28893.4	26318.3
75°	39.9	57.0	1126.4	1477.2	3422.0	7471.5	18778.4	25457.1	25882.0	24419.1	21564.6
77.5°	39.9	57.0	673.0	1009.5	2147.3	4100.7	12921.1	19511.3	20472.4	19109.2	15413.4
80°	39.9	54.2	316.5	550.4	1223.4	2173.0	5920.1	12011.4	13263.3	11954.3	8061.8
82.5°	39.9	54.2	259.5	396.4	618.8	1080.8	2312.7	3935.3	3864.1	3470.5	2597.9
85°	37.1	48.5	213.9	290.9	444.9	684.4	1289.0	1602.7	1528.5	1351.7	1360.3
87.5°	25.7	28.5	74.1	131.2	179.7	339.4	624.5	678.7	693.0	578.9	607.4
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°	13853.6	13853.6	13853.6	13853.6	13853.6	13853.6	13853.6	13853.6	13853.6	13853.6	13853.6
2.5°	14004.7	14021.8	14104.5	14252.8	14249.9	14409.6	14366.9	14737.6	14751.8	14746.1	14774.7
5°	14133.0	14230.0	14412.5	14729.0	14911.5	15151.1	15105.5	15479.0	15501.8	15470.5	15550.3
7.5°	14355.5	14475.2	14774.7	15165.3	15213.8	15516.1	15453.4	15755.6	15741.4	15684.4	15821.2
10°	14669.1	14811.7	15082.6	15305.1	15444.8	15621.6	15553.2	15809.8	15761.3	15698.6	15829.8
12.5°	14988.5	15057.0	15208.1	15459.1	15470.5	15510.4	15430.6	15638.7	15584.5	15490.4	15627.3
15°	15293.7	15302.2	15276.6	15390.6	15270.9	15296.5	15122.6	15253.7	15159.6	15116.9	15205.3
17.5°	15690.1	15587.4	15404.9	15356.4	15074.1	14954.3	14697.7	14692.0	14526.6	14466.7	14526.6
20°	16166.3	15943.9	15521.8	15119.7	14632.1	14386.8	13950.5	13833.6	13699.6	13571.2	13642.5
22.5°	16825.0	16394.4	15667.2	14917.2	14110.2	13628.3	13092.2	12761.4	12510.4	12262.3	12336.5
25°	17575.0	16973.3	15872.6	14572.2	13485.7	12633.0	11937.2	11372.6	11013.3	10651.1	10813.6
27.5°	18590.2	17760.4	15998.0	14315.5	12673.0	11529.4	10420.1	9684.4	9310.8	9051.3	8968.6
30°	19773.7	18778.4	16223.3	13810.8	11717.6	10172.0	8763.3	7942.0	7545.6	7423.0	7474.3
32.5°	21216.7	20016.1	16682.4	13388.7	10748.1	8731.9	7089.3	6447.7	6162.5	6142.6	6136.9
35°	23147.3	21595.9	17076.0	12732.8	9464.8	7052.3	5640.7	5110.2	5098.8	5090.3	5110.2
37.5°	24630.1	23204.3	17495.2	12091.2	7942.0	5506.6	4511.4	4189.1	4154.9	4254.7	4280.4
40°	25799.3	24356.4	18122.6	11007.6	6156.8	4112.2	3464.8	3345.0	3587.4	3807.0	3852.6
42.5°	26854.5	25326.0	18259.4	9852.6	4485.7	3156.8	2871.7	3071.3	3444.9	3695.8	3744.3
45°	27844.0	26344.0	17737.6	8135.9	3208.2	2674.9	2731.9	3031.4	3450.6	3718.6	3747.1
47.5°	28924.8	27025.6	17172.9	6541.8	2637.8	2563.7	2703.4	3045.6	3484.8	3755.7	3769.9
50°	29637.7	27513.2	15761.3	5116.0	2472.4	2495.2	2692.0	3077.0	3490.5	3684.4	3695.8
52.5°	29928.6	27903.9	14483.8	4095.0	2389.7	2443.9	2706.3	3131.2	3476.2	3584.6	3578.9
55°	30111.1	28083.5	13385.9	3407.8	2315.6	2404.0	2731.9	3171.1	3507.6	3618.8	3618.8
57.5°	29994.2	27681.5	12570.3	2903.0	2241.4	2375.5	2763.3	3231.0	3804.2	4000.9	3981.0
60°	29908.6	26928.6	11412.5	2563.7	2153.0	2344.1	2803.2	3439.2	4437.2	4636.9	4571.3
62.5°	29466.6	26292.7	10157.8	2346.9	2053.2	2327.0	2837.4	3718.6	4525.6	4514.2	4385.9
65°	28340.2	24998.0	8178.7	2127.4	1950.6	2304.2	2848.8	3841.2	4163.5	3983.8	3946.8
67.5°	26743.2	23130.1	6453.4	1907.8	1836.5	2255.7	2943.0	3695.8	3961.0	3807.0	3750.0
69°	25699.5	21747.1	5361.2	1770.9	1762.4	2215.8	2980.0	3681.5	3886.9	3712.9	3638.8
70°	24858.3	20549.4	4628.3	1682.5	1705.3	2184.4	2943.0	3678.7	3855.5	3638.8	3556.1
72.5°	21248.0	16648.2	2988.6	1471.5	1537.1	2101.7	2803.2	3584.6	3789.9	3647.3	3533.3
75°	16465.7	12119.7	1933.5	1271.9	1360.3	1962.0	2663.5	3524.7	3849.8	3590.3	3345.0
77.5°	10565.6	6484.8	1497.1	1069.4	1169.2	1765.2	2412.5	3282.3	3738.6	3504.7	3188.2
80°	4602.6	2406.8	1154.9	866.9	946.8	1434.4	2070.3	2917.3	3544.7	3519.0	3305.1
82.5°	1953.4	1551.3	889.7	664.4	752.8	1060.8	1622.6	2500.9	3131.2	3253.8	3487.6
85°	1106.5	929.7	593.2	456.3	558.9	781.4	1154.9	1919.2	2549.4	2826.0	3022.8
87.5°	476.2	387.8	273.8	245.2	316.5	404.9	496.2	901.1	1360.3	1659.7	1785.2
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)