

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: P232709

Luminaire Tested: **CTN-10-8-D-E1-T3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232709
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-19)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-10-8-D-E1-T3-7050
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 5000K LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 81595 lumens
Efficiency: N/A
Efficacy: 129.3 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B5 - U0 - G5

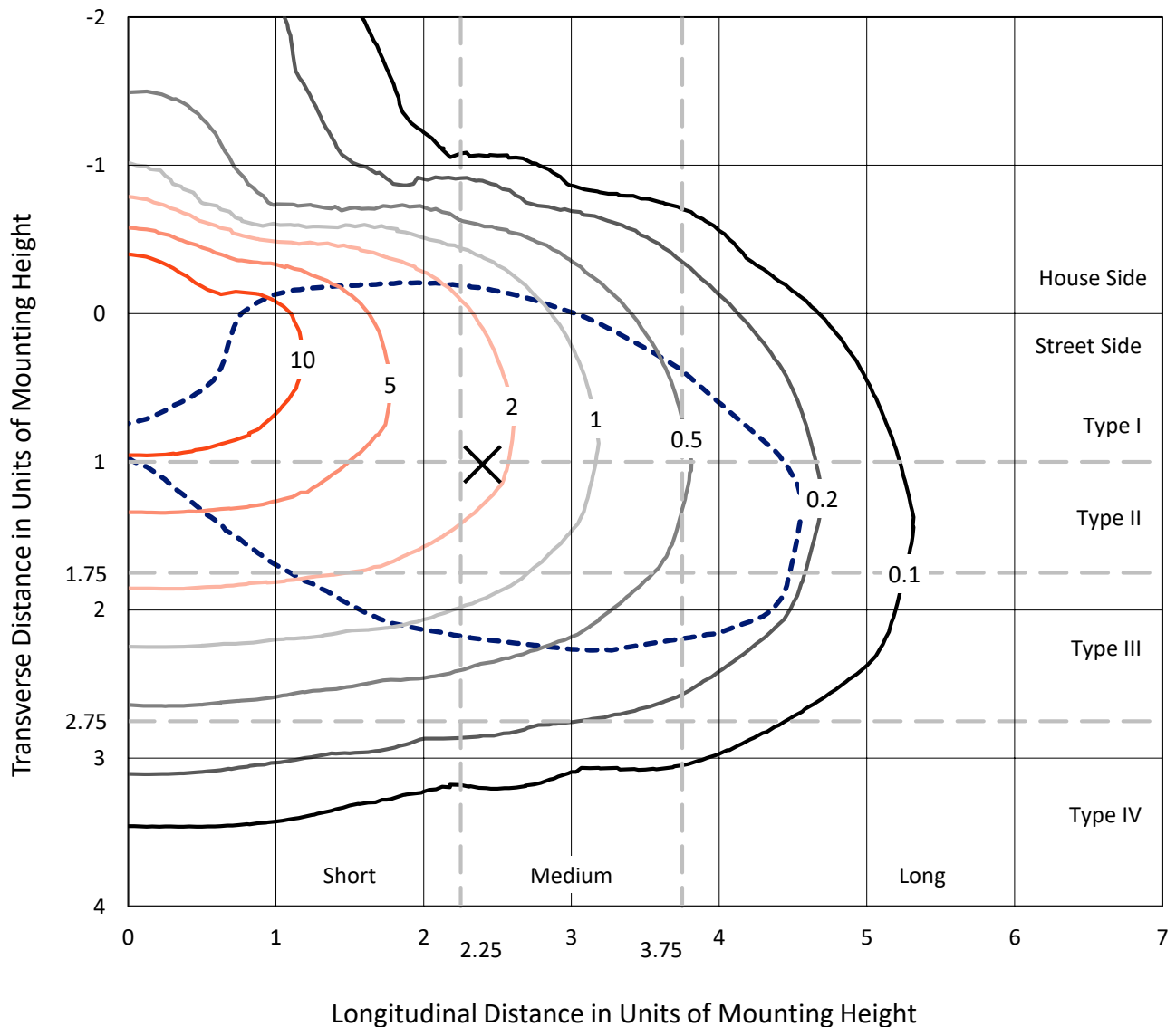
Input Watts (W): 631
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

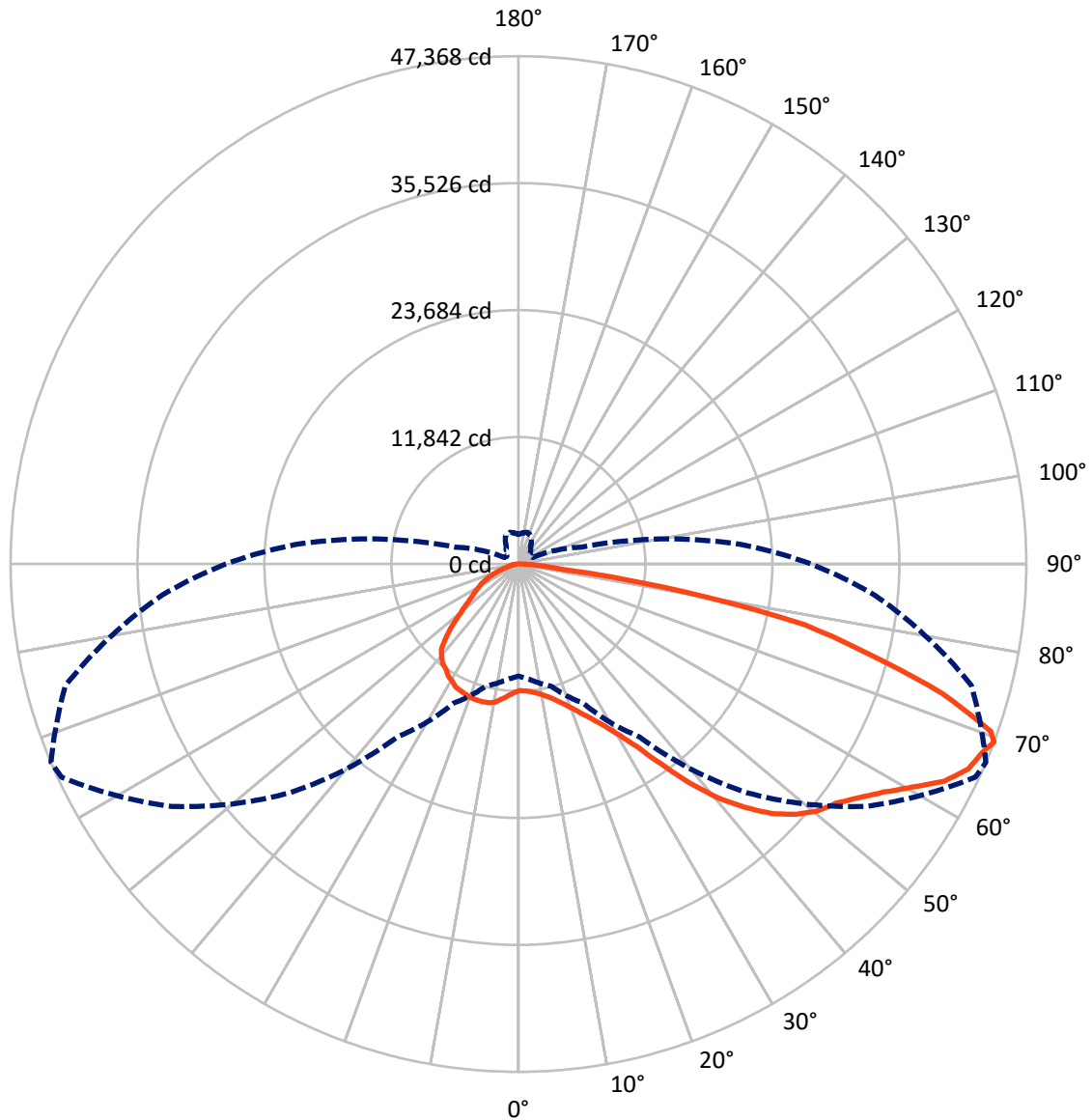


Based on 30 foot mounting height. Maximum calculated value = 15.6 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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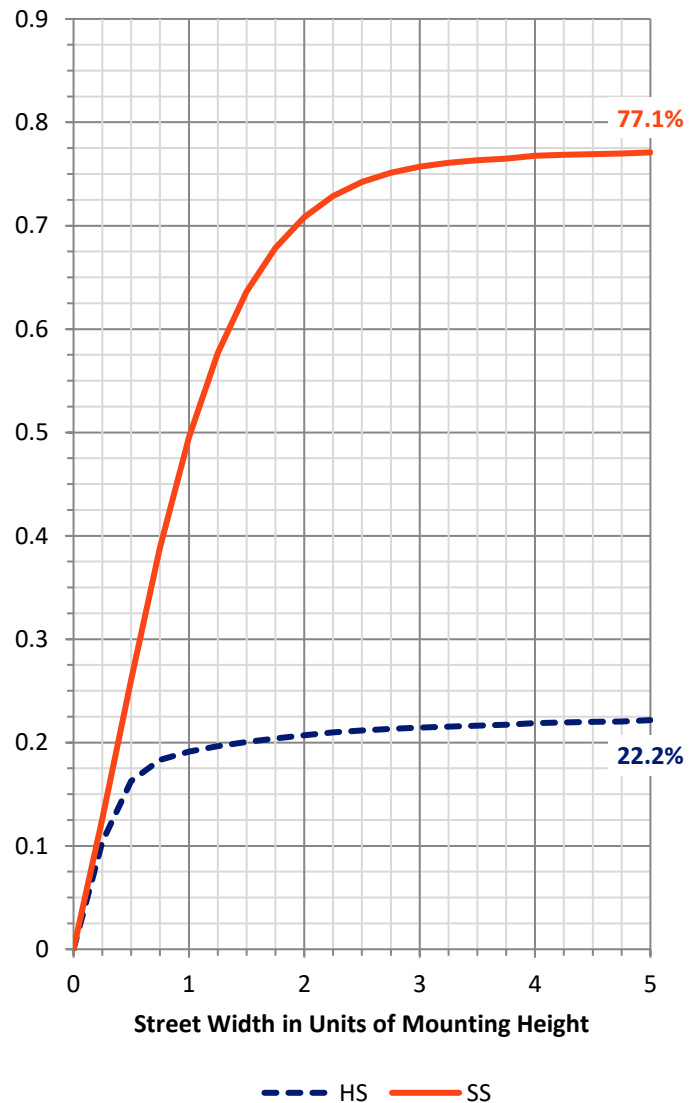
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	18561.1	0.0	18561.1
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	63033.9	0.0	63033.9
	% Fixture	77.3	0.0	77.3
Total	Lumens	81595.0	0.0	81595.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1198.7	1.5
10°-20°	3849.7	4.7
20°-30°	6694.7	8.2
30°-40°	10084.7	12.4
40°-50°	13927.9	17.1
50°-60°	16623.0	20.4
60°-70°	17507.1	21.5
70°-80°	10269.8	12.6
80°-90°	1439.3	1.8
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°	81595.0	100.0
0°-180°	81595.0	100.0



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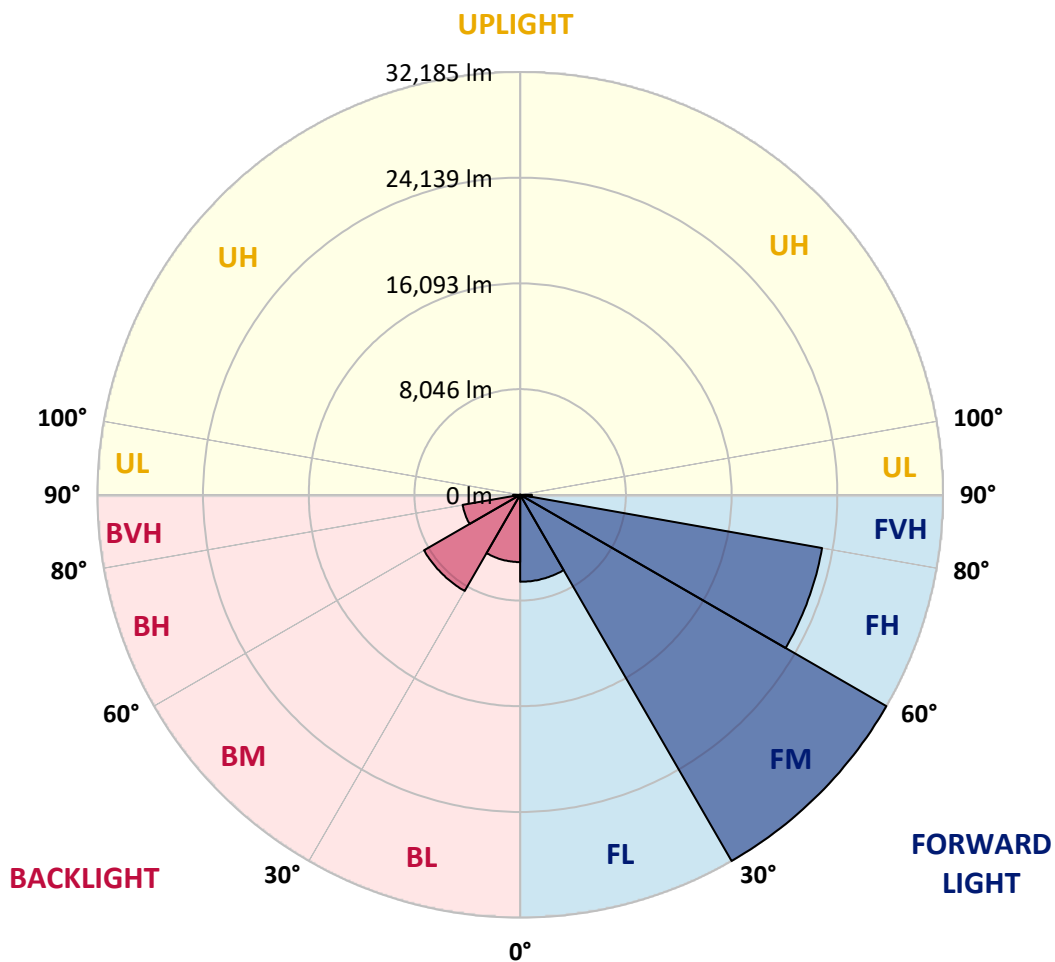
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	6621.3	8.1			
FM	(30°-60°)	32185.4	39.4			
FH	(60°-80°)	23332.6	28.6			G5
FVH	(80°-90°)	894.5	1.1			G5
BL	(0°-30°)	5121.7	6.3	B5		
BM	(30°-60°)	8450.3	10.4	B4/8500		
BH	(60°-80°)	4444.3	5.4	B4/5000		G4/5000
BVH	(80°-90°)	544.8	0.7			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°	67°	75°	85°
0°	11808.0	11808.0	11808.0	11808.0	11808.0	11808.0	11808.0	11808.0	11808.0	11808.0	11808.0
2.5°	11857.6	11873.3	11857.6	11831.5	11745.3	11784.5	11750.5	11860.2	11852.4	11810.6	11886.3
5°	12134.4	12152.7	12118.8	12097.9	11964.7	11983.0	11909.8	11969.9	11949.0	11878.5	11996.0
7.5°	12586.3	12604.6	12562.8	12534.0	12346.0	12304.2	12171.0	12189.3	12150.1	12037.8	12173.6
10°	13194.8	13210.5	13140.0	13069.5	12829.2	12727.3	12505.3	12468.8	12411.3	12301.6	12440.0
12.5°	13850.4	13873.9	13787.7	13696.3	13416.8	13249.7	12933.7	12821.3	12750.8	12617.6	12769.1
15°	14553.0	14581.7	14492.9	14388.4	14080.2	13821.7	13427.3	13257.5	13189.6	13022.5	13116.5
17.5°	15474.9	15467.1	15394.0	15250.3	14882.1	14503.3	14017.6	13764.2	13717.2	13555.3	13578.8
20°	16543.2	16506.6	16438.7	16240.2	15840.6	15370.5	14735.8	14414.5	14367.5	14231.7	14088.1
22.5°	17702.8	17666.2	17600.9	17347.6	16953.2	16336.8	15576.8	15198.1	15135.4	14965.6	14725.4
25°	18844.2	18805.0	18768.4	18528.1	18144.2	17444.2	16530.1	16046.9	16018.2	15845.8	15404.4
27.5°	20029.9	20006.4	20016.9	19810.5	19426.6	18700.5	17663.6	17138.7	17089.0	16869.6	16268.9
30°	21249.6	21254.9	21354.1	21134.7	20782.1	20050.8	19021.8	18486.3	18494.2	18298.3	17420.7
32.5°	22341.4	22346.6	22568.6	22458.9	22265.6	21536.9	20591.5	20215.4	20291.1	20275.4	19377.0
35°	23130.1	23164.1	23660.3	23809.2	23736.1	23101.4	22532.0	22623.4	22863.7	23542.8	22599.9
37.5°	23871.9	23884.9	24519.6	24864.4	25136.0	24754.7	24639.8	25506.9	25885.6	26825.8	25431.1
40°	24086.1	24266.3	25068.1	25548.7	26180.7	26368.8	26951.2	28233.6	28680.2	29247.0	27337.8
42.5°	23890.2	24146.1	25151.7	26293.0	27170.6	28103.0	29171.2	30623.4	31028.2	31378.2	29163.4
45°	23480.1	23676.0	24720.7	26428.8	28019.4	29868.6	31101.4	32840.8	33206.5	32979.3	30589.4
47.5°	22934.3	23083.1	24248.0	26212.1	28698.5	31451.3	32869.6	34619.5	34885.9	34355.7	31558.4
50°	22176.8	22354.4	23655.1	25914.3	29197.4	32775.5	34290.4	35956.7	36181.3	35212.3	32509.1
52.5°	21241.8	21463.8	22976.0	25407.6	29570.8	33762.8	35282.9	36847.3	37074.6	36445.1	33261.3
55°	20181.4	20489.6	22046.2	24791.2	29597.0	34287.8	35901.9	38153.2	38477.1	37798.0	33919.5
57.5°	19105.3	19303.8	20951.9	23848.4	29105.9	34462.8	36643.6	39673.3	40146.0	39109.2	34637.7
60°	17791.6	17982.3	19614.6	22586.9	28126.5	34731.8	38127.1	41848.9	42225.0	40637.1	35248.9
62.5°	16237.6	16454.4	17935.3	20860.5	26677.0	34841.5	39639.4	44163.0	44593.9	42026.5	35601.5
65°	14263.1	14503.3	15853.7	18771.0	24605.8	34063.1	40292.3	45873.7	46095.7	43092.2	35450.0
67.5°	12105.7	12304.2	13380.3	16172.3	21740.7	32033.8	39950.2	46505.8	46730.4	43815.6	34543.7
69°	10455.1	10760.6	11794.9	14320.5	19679.9	30176.8	39427.8	47025.5	47367.7	43734.7	33352.7
70°	9133.5	9475.6	10410.7	12688.1	17930.0	28249.3	38456.2	46631.2	46727.8	42953.7	32279.3
72.5°	5772.1	5884.4	6310.1	7825.0	12615.0	21960.0	33653.1	41397.1	41371.0	38323.0	28178.8
75°	2852.1	2998.4	3805.4	4393.1	6216.1	14124.6	26488.9	34000.5	34005.7	32344.6	23166.7
77.5°	1713.3	1776.0	1982.4	2831.2	3552.1	6338.8	17979.7	26917.3	27329.9	26324.4	16671.1
80°	1180.5	1149.2	1209.3	1392.1	1911.8	3332.7	7391.4	15216.4	15663.0	14445.9	7101.5
82.5°	929.8	903.7	922.0	969.0	911.5	1543.6	3126.3	4549.8	4416.6	3894.2	2729.3
85°	650.3	598.1	632.1	613.8	543.3	906.3	1520.1	1890.9	1877.9	1940.6	1486.1
87.5°	206.3	182.8	188.0	182.8	151.5	321.3	545.9	736.5	679.1	689.5	522.4
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°	11808.0	11808.0	11808.0	11808.0	11808.0	11808.0	11808.0	11808.0	11808.0	11808.0	11808.0
2.5°	11904.6	11883.7	11907.2	12030.0	12001.2	12108.3	12134.4	12309.4	12317.3	12301.6	12380.0
5°	12050.9	12071.8	12160.6	12356.4	12421.7	12651.6	12756.1	12970.2	12991.1	12998.9	13074.7
7.5°	12262.4	12299.0	12489.6	12745.6	12868.4	13168.7	13325.4	13589.2	13607.5	13636.2	13722.4
10°	12575.8	12628.1	12779.6	13129.5	13168.7	13406.4	13550.0	13777.3	13761.6	13800.8	13879.1
12.5°	12891.9	12920.6	13035.5	13275.8	13249.7	13482.1	13544.8	13693.7	13683.2	13680.6	13738.1
15°	13231.4	13181.8	13197.4	13288.9	13192.2	13335.9	13291.5	13401.2	13257.5	13200.1	13239.2
17.5°	13591.8	13471.7	13317.6	13249.7	13066.9	13043.3	12891.9	12839.6	12740.4	12709.0	12740.4
20°	14020.2	13764.2	13390.7	13194.8	12795.2	12588.9	12299.0	12129.2	11899.4	11917.7	11962.1
22.5°	14456.3	14095.9	13531.8	13006.8	12442.6	12024.7	11447.5	11293.4	10993.1	10904.3	10993.1
25°	14991.8	14508.6	13602.3	12839.6	11909.8	11165.5	10580.4	10034.6	9807.3	9585.3	9668.9
27.5°	15694.3	15041.4	13858.2	12633.3	11306.5	10314.0	9384.2	8679.0	8397.0	8159.3	8174.9
30°	16605.9	15754.4	13954.9	12199.7	10580.4	9146.5	7976.4	7192.9	6840.3	6743.7	6701.9
32.5°	18290.5	16903.6	14127.2	11883.7	9676.7	7877.2	6440.7	5599.7	5377.7	5419.5	5555.3
35°	21275.8	19309.1	14649.6	11222.9	8679.0	6492.9	5004.2	4353.9	4390.4	4466.2	4450.5
37.5°	23851.0	21479.5	15519.3	10758.0	7459.3	4918.0	3779.3	3434.5	3653.9	3802.8	3797.6
40°	25600.9	23062.2	16658.1	9888.3	5918.3	3505.0	2781.6	2590.9	2870.4	3189.0	3243.9
42.5°	27337.8	24501.3	17209.2	9117.8	4155.4	2473.4	2013.7	2063.3	2421.1	2721.5	2776.3
45°	28586.2	25546.1	17452.1	7744.0	2653.6	1893.6	1757.7	1940.6	2327.1	2564.8	2590.9
47.5°	29502.9	26332.2	17188.3	6265.7	1953.6	1731.6	1734.2	1966.7	2355.8	2624.9	2635.3
50°	30312.6	26885.9	16125.3	4886.7	1757.7	1676.8	1768.2	2042.4	2439.4	2711.1	2703.2
52.5°	30866.3	27047.8	14835.0	4003.9	1702.9	1645.4	1796.9	2112.9	2465.5	2648.4	2632.7
55°	31234.6	26804.9	13842.6	3296.1	1655.9	1642.8	1843.9	2201.8	2491.7	2564.8	2528.2
57.5°	31461.8	26313.9	13004.2	2833.8	1616.7	1642.8	1896.2	2235.7	2588.3	2721.5	2679.7
60°	31393.9	26094.5	11868.0	2455.1	1561.9	1648.0	1924.9	2285.3	2977.5	3290.9	3298.7
62.5°	31258.1	25666.2	10758.0	2154.7	1496.6	1679.4	1961.5	2572.6	3656.5	3659.1	3528.5
65°	30613.0	24376.0	9143.9	1883.1	1428.7	1687.2	1969.3	3045.4	4100.5	3755.8	3586.0
67.5°	28836.9	22487.6	7255.6	1629.8	1352.9	1640.2	1961.5	2980.1	3311.8	2964.4	2878.2
69°	27288.1	20850.0	6062.0	1478.3	1298.1	1593.2	1969.3	2857.3	3066.3	2859.9	2781.6
70°	26159.8	19523.2	5150.5	1386.9	1248.4	1569.7	1969.3	2812.9	3032.3	2836.4	2760.7
72.5°	22453.7	15336.5	3087.2	1157.0	1104.8	1478.3	1951.0	2745.0	3058.4	2891.3	2792.0
75°	17201.3	11155.0	1796.9	950.7	929.8	1326.8	1854.4	2703.2	3147.2	2893.9	2677.1
77.5°	11021.8	5147.9	1339.9	773.1	754.8	1149.2	1731.6	2567.4	3233.4	3034.9	2760.7
80°	3828.9	2335.0	1000.3	611.2	585.0	940.2	1517.5	2314.1	3079.3	3100.2	2893.9
82.5°	2099.9	1538.4	707.8	454.5	430.9	590.3	1180.5	1995.4	2849.5	3068.9	3084.5
85°	1154.4	867.1	464.9	292.5	329.1	506.7	817.5	1551.4	2293.2	2666.7	2784.2
87.5°	467.5	313.4	182.8	114.9	135.8	201.1	276.9	794.0	1384.3	1786.5	1966.7
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)