

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: P237529

Luminaire Tested: **CTN-8-4-D-E1-T3-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237529
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-26)
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-T3-7030-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 3000K LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38893 lumens
Efficiency: N/A
Efficacy: 119.7 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G4

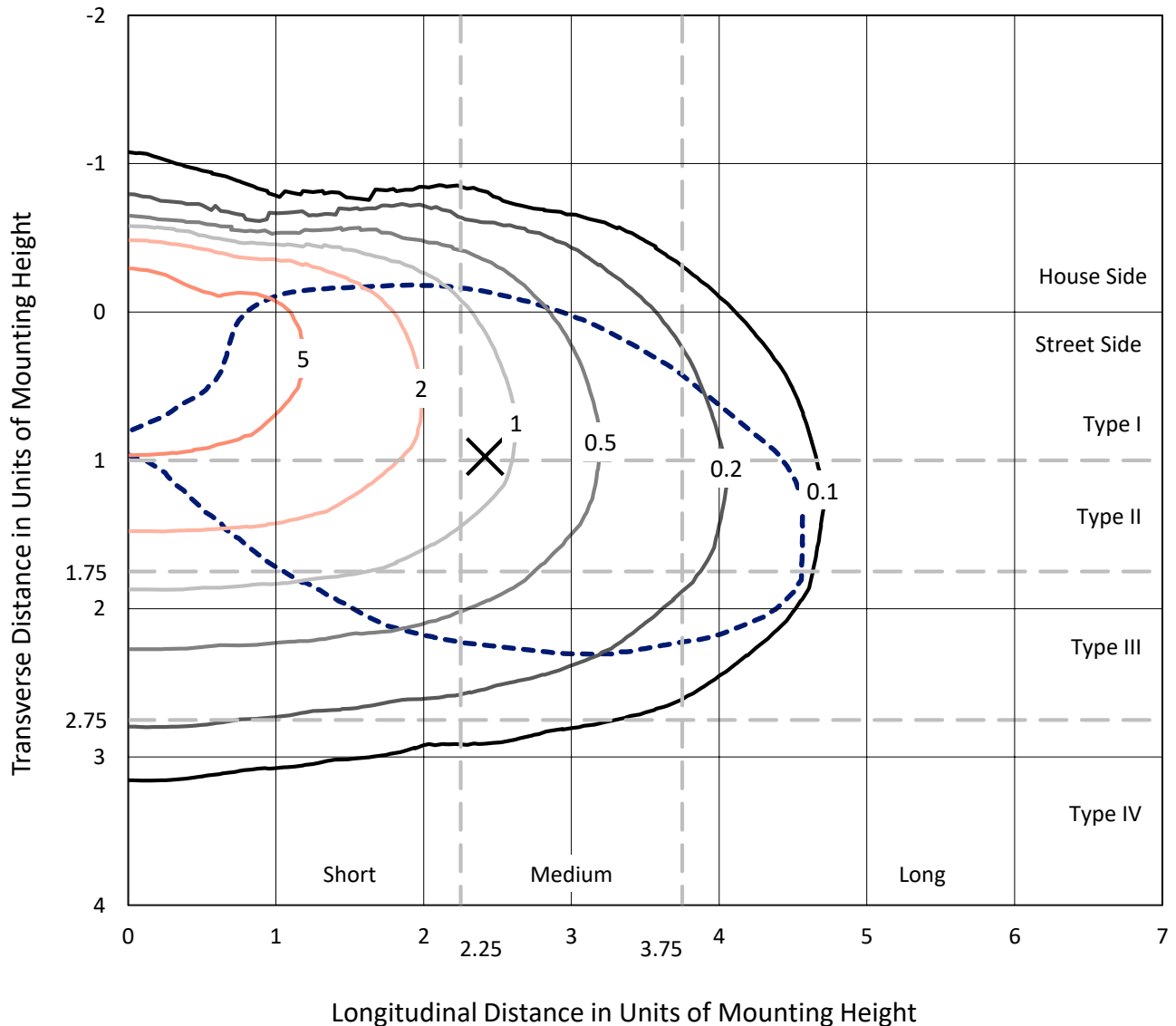
Input Watts (W): 325
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

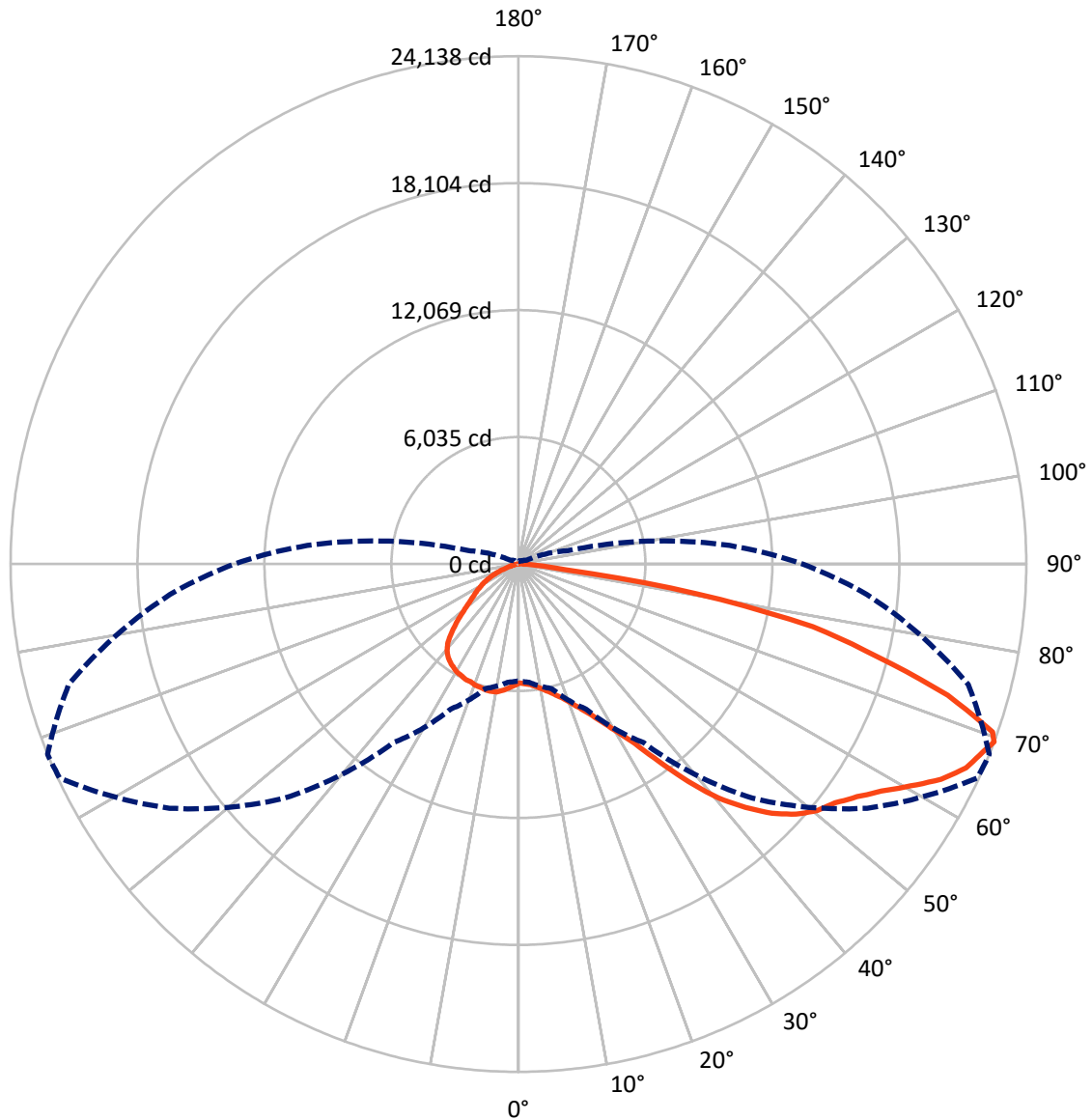
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.7 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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

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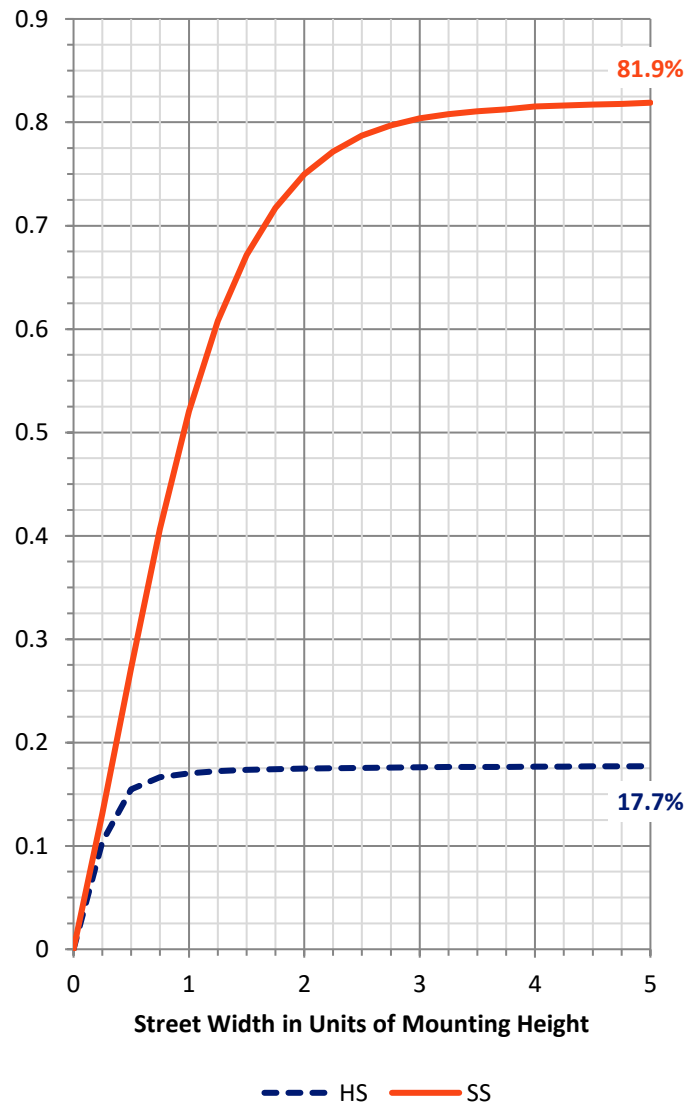
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6979.9	0.0	6979.9
	% Fixture	17.9	0.0	17.9
Street Side	Lumens	31913.1	0.0	31913.1
	% Fixture	82.1	0.0	82.1
Total	Lumens	38893.0	0.0	38893.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	568.1	1.5
10°-20°	1782.8	4.6
20°-30°	3047.5	7.8
30°-40°	4695.9	12.1
40°-50°	6738.8	17.3
50°-60°	8110.5	20.9
60°-70°	8511.2	21.9
70°-80°	4930.8	12.7
80°-90°	507.3	1.3
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°	38893.0	100.0
0°-180°	38893.0	100.0



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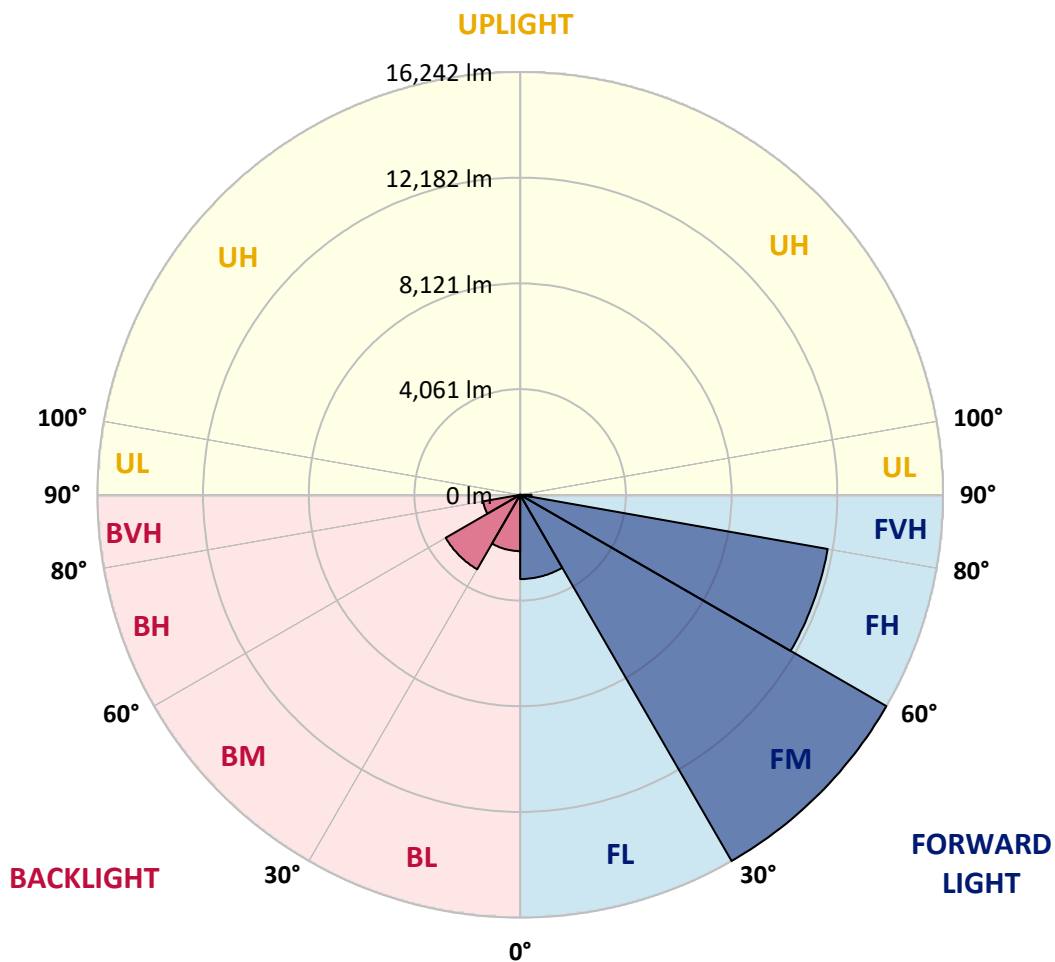
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3235.7	8.3			
FM (30°-60°)	16242.3	41.8			
FH (60°-80°)	11994.2	30.8			G4/12000
FVH (80°-90°)	440.9	1.1			G3/500
BL (0°-30°)	2162.8	5.6	B3/2500		
BM (30°-60°)	3302.9	8.5	B3/5000		
BH (60°-80°)	1447.8	3.7	B3/2500		G3/2500
BVH (80°-90°)	66.4	0.2			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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	5657.2	5657.2	5657.2	5657.2	5657.2	5657.2	5657.2	5657.2	5657.2	5657.2	5657.2
2.5°	5720.5	5674.7	5680.1	5716.5	5608.7	5654.5	5626.2	5685.5	5694.9	5666.6	5692.2
5°	5833.7	5794.6	5793.3	5829.7	5709.7	5744.8	5700.3	5740.7	5752.9	5723.2	5767.7
7.5°	6053.4	6011.6	6003.5	6039.9	5887.6	5898.4	5837.8	5858.0	5868.8	5828.3	5872.8
10°	6368.7	6322.9	6293.3	6313.5	6142.3	6115.4	6011.6	6008.9	6025.1	5969.8	6041.3
12.5°	6721.8	6667.9	6624.8	6628.8	6433.4	6387.6	6250.1	6201.6	6212.4	6138.3	6224.5
15°	7105.8	7027.7	6987.3	6988.6	6769.0	6692.1	6515.6	6436.1	6429.4	6357.9	6407.8
17.5°	7568.1	7504.7	7453.5	7426.6	7193.4	7041.2	6830.9	6727.2	6689.4	6642.3	6616.7
20°	8111.2	8031.6	7977.7	7968.3	7682.6	7480.5	7201.5	7064.1	7019.6	6980.5	6866.0
22.5°	8716.2	8635.4	8561.2	8549.1	8245.9	8002.0	7627.4	7457.6	7418.5	7374.0	7144.9
25°	9274.1	9264.7	9182.5	9169.0	8876.6	8559.9	8120.6	7903.6	7903.6	7851.1	7499.3
27.5°	9896.7	9910.2	9836.1	9819.9	9545.0	9194.6	8671.8	8464.2	8507.3	8413.0	7945.4
30°	10553.0	10524.7	10504.5	10522.0	10267.3	9896.7	9352.3	9177.1	9244.5	9136.7	8543.7
32.5°	11140.5	11119.0	11132.5	11199.8	11016.6	10674.3	10206.7	10097.5	10162.2	10229.6	9616.4
35°	11605.5	11559.6	11729.4	11877.7	11825.1	11500.3	11124.4	11354.8	11532.7	11839.9	11197.1
37.5°	12015.1	11981.4	12187.6	12490.8	12556.9	12376.3	12260.4	12903.2	13106.7	13520.4	12583.8
40°	12220.0	12213.2	12466.6	12861.4	13129.6	13246.8	13450.3	14326.2	14622.7	14735.9	13639.0
42.5°	12153.9	12175.5	12622.9	13232.0	13665.9	14168.6	14578.2	15541.8	15814.0	15721.0	14563.4
45°	11969.3	11980.1	12434.2	13384.3	14130.8	15115.9	15663.1	16668.4	16909.6	16582.1	15299.2
47.5°	11713.3	11717.3	12197.0	13279.2	14510.9	15973.0	16598.3	17568.5	17763.9	17301.7	15828.8
50°	11366.9	11373.7	11946.4	13147.1	14838.3	16675.1	17330.0	18266.6	18417.5	17812.5	16287.0
52.5°	10929.0	10988.3	11614.9	12935.5	15043.2	17173.7	17883.9	18778.7	18852.8	18422.9	16692.6
55°	10423.6	10485.6	11193.1	12648.5	15122.7	17456.7	18272.0	19409.4	19527.9	19104.8	17022.8
57.5°	9825.3	9910.2	10655.4	12182.2	14936.7	17575.3	18666.8	20188.3	20348.6	19817.7	17362.4
60°	9131.3	9236.4	10020.7	11600.1	14506.8	17700.6	19405.3	21232.6	21418.6	20584.5	17658.8
62.5°	8406.3	8473.7	9182.5	10806.3	13818.2	17797.6	20200.4	22519.6	22535.8	21256.9	17823.2
65°	7436.0	7507.4	8142.1	9803.7	12784.6	17489.0	20602.0	23422.5	23374.0	21783.8	17768.0
67.5°	6325.6	6393.0	6911.8	8557.2	11365.6	16623.9	20464.5	23782.3	23814.6	22166.5	17238.4
69°	5554.8	5643.7	6132.9	7609.8	10363.0	15738.5	20234.1	24062.6	24138.1	22131.5	16625.2
70°	4895.8	5010.3	5475.3	6773.0	9514.0	14934.0	19789.4	23903.6	23909.0	21777.1	16060.6
72.5°	3197.8	3267.9	3348.8	4394.5	6844.4	11834.5	17511.9	21199.0	21339.1	19432.3	14041.9
75°	1582.1	1644.1	1945.9	2324.6	3519.9	7927.9	13884.2	17367.8	17633.2	16502.6	11504.4
77.5°	873.2	885.4	991.8	1522.8	1824.6	3584.6	9489.7	13845.2	14310.1	13449.0	8262.1
80°	544.4	541.7	566.0	708.8	1022.8	1699.3	4007.7	7770.2	8605.7	7022.3	3265.2
82.5°	424.5	416.4	417.8	458.2	432.6	800.5	1668.3	2262.6	2282.8	2026.8	1270.8
85°	217.0	245.3	291.1	304.6	256.0	435.3	768.1	893.5	915.0	801.8	661.7
87.5°	72.8	74.1	78.2	76.8	68.7	149.6	284.3	331.5	295.1	167.1	226.4
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°	5657.2	5657.2	5657.2	5657.2	5657.2	5657.2	5657.2	5657.2	5657.2	5657.2	5657.2
2.5°	5731.3	5719.2	5743.4	5798.7	5752.9	5794.6	5752.9	5893.0	5876.8	5867.4	5894.4
5°	5810.8	5809.5	5848.5	5937.5	5933.4	6007.6	5967.1	6105.9	6085.7	6083.0	6107.3
7.5°	5918.6	5944.2	5986.0	6077.6	6079.0	6139.6	6093.8	6203.0	6158.5	6147.7	6181.4
10°	6083.0	6089.8	6122.1	6185.4	6096.5	6123.5	6048.0	6134.2	6072.2	6065.5	6115.4
12.5°	6240.7	6250.1	6201.6	6181.4	6066.9	6031.8	5899.8	5945.6	5874.2	5867.4	5891.7
15°	6409.1	6345.8	6229.9	6163.9	5965.8	5839.1	5690.9	5600.6	5478.0	5421.4	5442.9
17.5°	6584.3	6461.7	6244.7	6084.4	5818.9	5634.3	5339.2	5185.5	5003.6	4910.6	4893.1
20°	6775.7	6603.2	6281.1	6043.9	5670.7	5306.8	4947.0	4595.3	4387.8	4292.1	4266.5
22.5°	6991.3	6781.1	6332.3	5909.2	5438.9	4996.9	4389.1	3945.7	3643.9	3550.9	3525.3
25°	7260.8	6980.5	6402.4	5875.5	5216.5	4490.2	3734.2	3231.5	2879.8	2738.3	2708.7
27.5°	7588.3	7255.4	6517.0	5715.1	4825.7	3925.5	3083.3	2505.2	2140.0	1972.9	1936.5
30°	8065.3	7607.2	6593.8	5620.8	4478.0	3339.3	2396.0	1750.5	1404.2	1281.6	1249.2
32.5°	9006.0	8210.9	6750.1	5403.8	3964.6	2657.5	1649.5	1074.0	831.5	761.4	734.4
35°	10403.4	9348.2	6975.1	5146.5	3387.8	1890.7	979.7	622.6	500.0	474.4	466.3
37.5°	11676.9	10470.8	7410.4	4750.3	2630.5	1163.0	567.3	398.9	367.9	371.9	371.9
40°	12637.7	11304.9	7918.4	4227.4	1784.2	652.2	389.5	331.5	338.2	339.6	338.2
42.5°	13537.9	12069.0	8163.7	3650.6	1033.6	432.6	338.2	308.6	314.0	309.9	307.3
45°	14245.4	12616.1	8236.5	2874.4	566.0	386.8	318.0	287.0	284.3	287.0	289.7
47.5°	14704.9	12950.4	8070.7	2200.6	427.2	359.8	305.9	272.2	265.5	284.3	283.0
50°	15045.9	13179.4	7427.9	1673.7	416.4	336.9	291.1	254.7	257.4	280.3	277.6
52.5°	15293.8	13238.7	6723.1	1342.2	397.5	320.7	277.6	246.6	243.9	261.4	262.8
55°	15490.6	13079.7	6283.8	1056.5	381.4	304.6	266.8	238.5	225.0	230.4	229.1
57.5°	15613.2	12897.8	5782.5	881.3	366.5	287.0	252.0	217.0	196.7	198.1	196.7
60°	15586.2	12776.5	5207.1	722.3	347.7	270.9	231.8	194.1	173.8	168.4	168.4
62.5°	15532.3	12527.2	4612.8	629.3	331.5	265.5	207.5	176.5	161.7	156.3	156.3
65°	15165.8	11932.9	3817.7	539.0	315.3	250.7	194.1	169.8	152.3	146.9	146.9
67.5°	14256.2	10950.5	2956.6	469.0	303.2	226.4	190.0	165.8	146.9	140.1	140.1
69°	13488.0	10077.3	2428.4	431.2	291.1	215.6	190.0	167.1	144.2	136.1	136.1
70°	12888.4	9391.4	2009.3	408.3	279.0	208.9	190.0	168.4	142.8	133.4	132.1
72.5°	11059.7	7332.2	1115.8	346.3	231.8	190.0	186.0	169.8	136.1	122.6	121.3
75°	8485.8	5154.5	664.4	292.4	195.4	173.8	176.5	163.1	125.3	110.5	110.5
77.5°	5302.8	2367.7	494.6	229.1	159.0	150.9	153.6	144.2	113.2	101.1	101.1
80°	1811.2	1068.6	373.3	176.5	114.5	117.2	126.7	121.3	101.1	91.6	90.3
82.5°	991.8	695.4	264.1	122.6	79.5	97.0	97.0	98.4	87.6	80.9	79.5
85°	539.0	362.5	163.1	74.1	56.6	71.4	68.7	74.1	71.4	66.0	64.7
87.5°	187.3	124.0	53.9	27.0	22.9	24.3	28.3	37.7	36.4	37.7	39.1
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)