

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: P591226

Luminaire Tested: **CTN-CA10-630-727-U-T4-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591226
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-10)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-630-727-U-T4-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 49562 lumens
Efficiency: N/A
Efficacy: 78.5 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type IV - Short
BUG Rating: B5 - U0 - G5

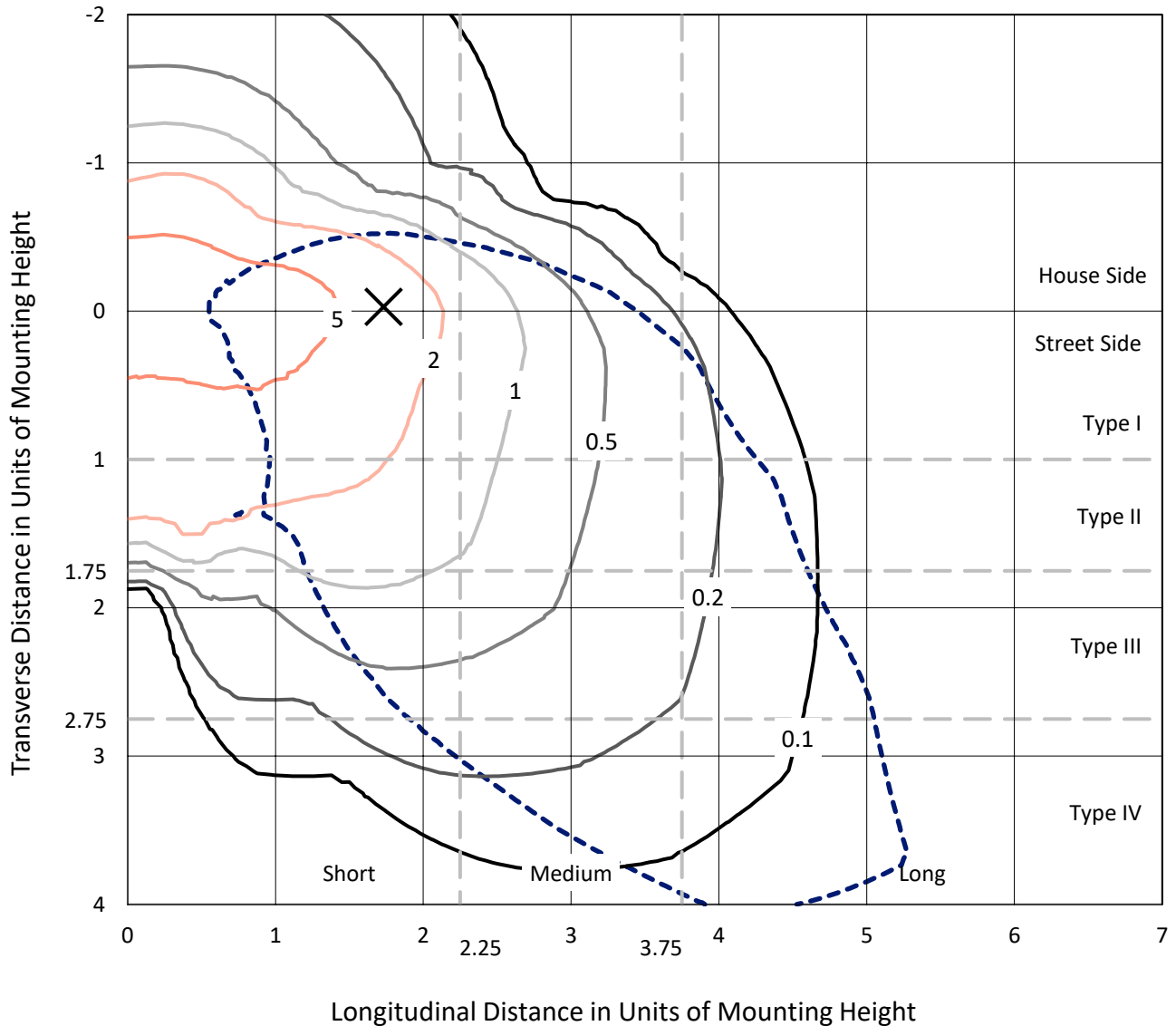
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P591226
 CATALOG NUMBER: CTN-CA10-630-727-U-T4-SSS-HM-EX90

Iso-Footcandle Lines of Horizontal Illumination

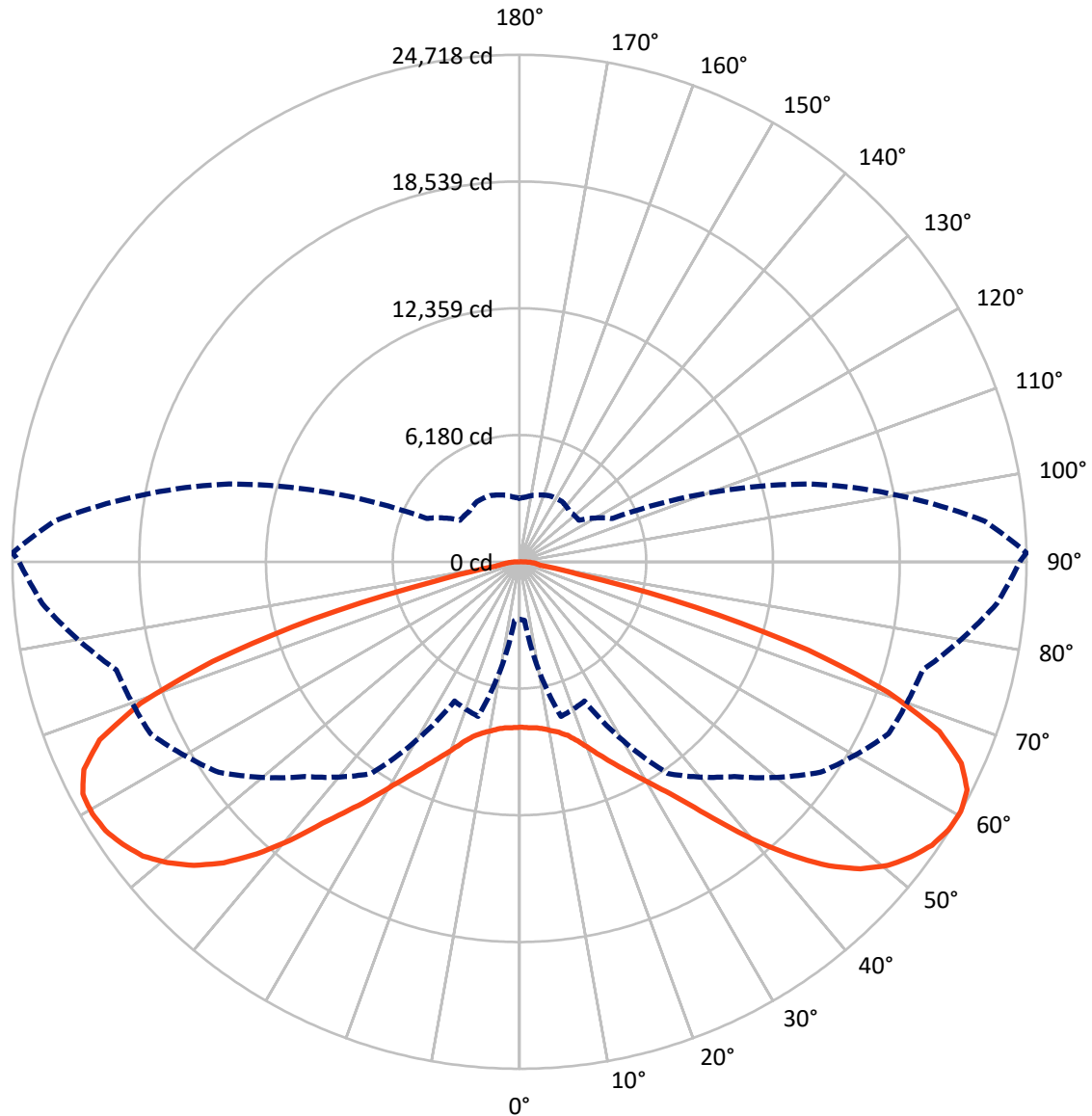
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.4 fc
 Type IV - Short - N/A

REPORT NUMBER: P591226
CATALOG NUMBER: CTN-CA10-630-727-U-T4-SSS-HM-EX90

Luminous Intensity Polar Plot



— Vertical Plane Through 91-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

REPORT NUMBER: P591226
 CATALOG NUMBER: CTN-CA10-630-727-U-T4-SSS-HM-EX90

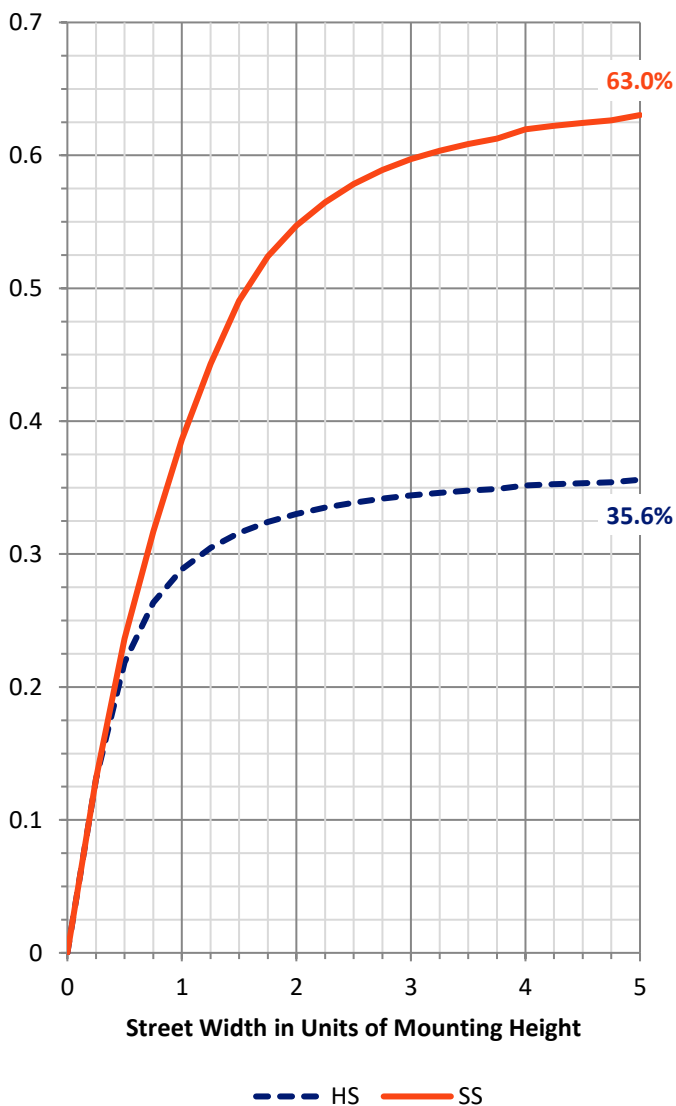
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	17999.1	0.0	17999.1
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	31562.9	0.0	31562.9
	% Fixture	63.7	0.0	63.7
Total	Lumens	49562.0	0.0	49562.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	785.9	1.6
10°-20°	2410.3	4.9
20°-30°	3951.0	8.0
30°-40°	5580.1	11.3
40°-50°	7855.1	15.8
50°-60°	9884.1	19.9
60°-70°	9949.0	20.1
70°-80°	7319.3	14.8
80°-90°	1827.1	3.7
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°	49562.0	100.0
0°-180°	49562.0	100.0

Coefficient of Utilization

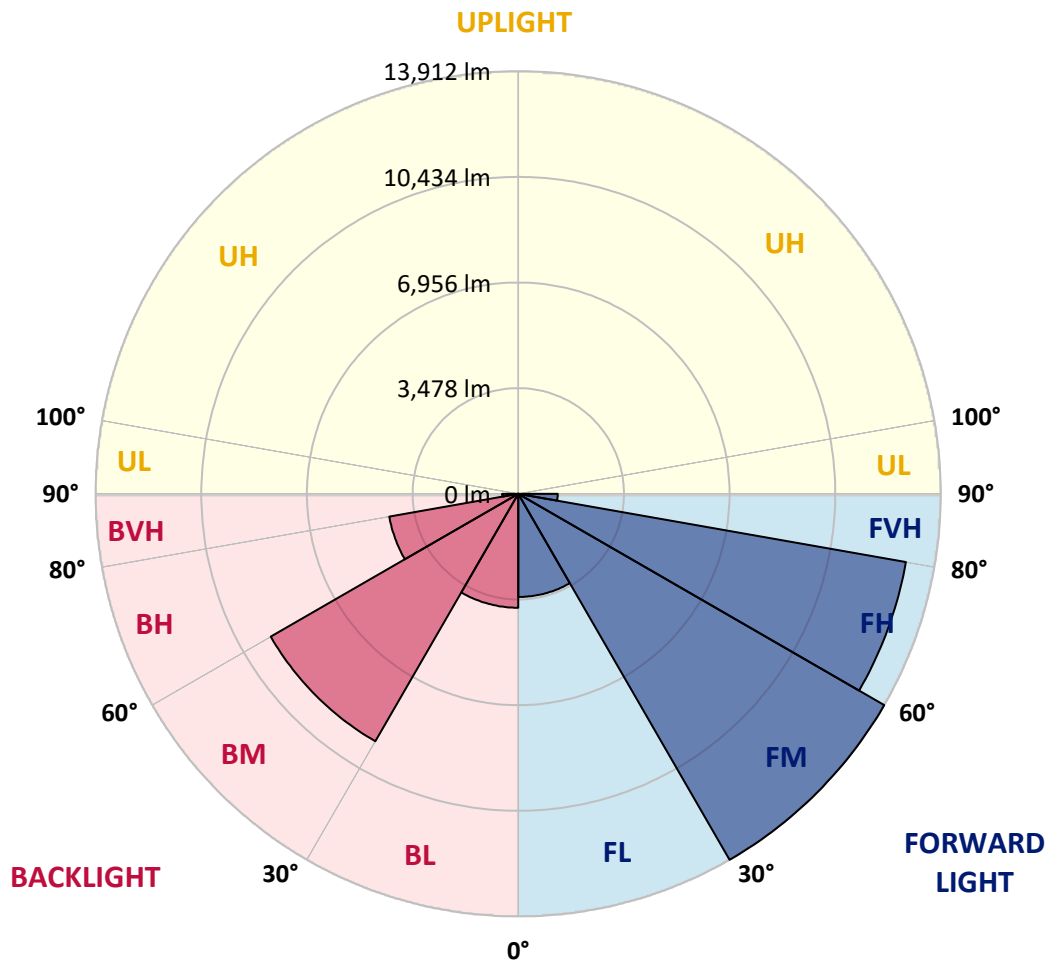


REPORT NUMBER: P591226
 CATALOG NUMBER: CTN-CA10-630-727-U-T4-SSS-HM-EX90

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3395.6	6.9			
FM (30°-60°)	13912.0	28.1			
FH (60°-80°)	12957.6	26.1			G5
FVH (80°-90°)	1297.8	2.6			G5
BL (0°-30°)	3751.6	7.6	B4/5000		
BM (30°-60°)	9407.3	19.0	B5		
BH (60°-80°)	4310.8	8.7	B4/5000		G4/5000
BVH (80°-90°)	529.4	1.1			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 IV Short





REPORT NUMBER: P591226

CATALOG NUMBER: CTN-CA10-630-727-U-T4-SSS-HM-EX90

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	8060.6	8060.6	8060.6	8060.6	8060.6	8060.6	8060.6	8060.6	8060.6	8060.6	8060.6
2.5°	7980.9	7930.2	7932.6	8007.5	7894.0	7966.5	7949.6	8065.5	8043.7	8084.8	8094.4
5°	7925.4	7884.4	7884.4	7973.7	7896.4	7959.2	7906.1	8007.5	8043.7	8104.1	8116.2
7.5°	7947.1	7903.7	7920.6	7997.8	7910.9	7976.1	7971.3	8060.6	8082.4	8183.8	8198.3
10°	7985.8	7947.1	7952.0	8017.2	7959.2	8080.0	8058.2	8186.2	8183.8	8343.2	8355.2
12.5°	7918.2	7889.2	7889.2	7976.1	8009.9	8137.9	8181.4	8314.2	8328.7	8507.4	8521.9
15°	7811.9	7763.6	7836.1	7966.5	8036.5	8236.9	8311.8	8521.9	8560.5	8729.5	8765.8
17.5°	7589.7	7611.5	7814.3	7722.6	7403.8	7700.8	8524.3	8792.3	8876.8	9077.3	9164.2
20°	6901.5	6633.5	6102.2	6247.1	6903.9	7751.5	8821.3	9135.2	9321.2	9557.8	9705.1
22.5°	5213.6	5382.6	6375.1	6478.9	6507.9	7073.0	9236.6	9555.4	9801.7	10101.1	10296.7
25°	5406.8	5389.9	5730.3	6795.3	6824.3	7147.8	8695.7	10103.6	10325.7	10741.1	10936.7
27.5°	5585.5	5585.5	5566.1	6416.1	7152.7	7471.4	8978.3	9700.3	11013.9	11465.5	11694.9
30°	5882.5	5892.1	5783.5	5781.1	7423.1	7768.4	9524.0	9881.4	11622.5	12477.3	12530.4
32.5°	6471.7	6437.9	6302.7	6095.0	6421.0	8113.8	10057.7	10535.8	11035.7	13614.7	13566.4
35°	6896.7	6870.1	6773.5	6628.7	6478.9	8270.7	10557.5	11221.6	12040.2	13950.4	14877.6
37.5°	7411.1	7367.6	7258.9	7087.5	6990.9	7140.6	11071.9	11996.8	13295.9	14348.8	16357.9
40°	7973.7	7961.6	7795.0	7572.8	7440.0	7551.1	11465.5	12962.7	14853.5	16041.6	17990.3
42.5°	8406.0	8396.3	8258.6	8130.7	8067.9	8292.5	10487.5	14242.5	16635.6	17579.8	19562.4
45°	8794.7	8780.2	8775.4	8732.0	8782.7	9328.4	11559.7	15032.2	18386.4	18903.1	20991.9
47.5°	9089.3	9045.9	8922.7	8934.8	9077.3	9997.3	12675.3	13841.7	19806.3	20069.5	22107.6
50°	9789.6	9746.2	9321.2	9335.7	9610.9	10828.0	13636.4	15220.5	18485.4	21078.9	22962.4
52.5°	10415.1	10055.3	9823.4	9833.1	10209.8	11711.8	14727.9	16647.7	18171.4	21878.2	23653.1
55°	8995.2	8763.3	11018.8	10704.9	10912.5	12675.3	15788.0	17884.1	19033.5	22489.1	24049.1
57.5°	5278.8	5249.8	12127.2	12400.0	12158.6	13716.1	16860.2	18912.8	19789.4	23059.0	24314.7
60°	2801.2	2868.8	7799.8	7495.6	12602.9	14802.8	17898.6	19847.3	20349.6	23353.6	24387.2
62.5°	258.4	229.4	5126.6	5824.5	11296.5	16222.7	19130.1	20798.8	20728.7	23510.6	24259.2
65°	50.7	67.6	5030.0	5754.5	12552.2	18577.1	21141.7	21530.4	20934.0	23322.2	23587.9
67.5°	38.6	58.0	4752.3	5691.7	13322.5	19482.7	23457.5	21788.8	20946.1	22720.9	22110.0
70°	38.6	60.4	4194.5	5319.8	13687.1	19521.3	24005.6	21687.4	20675.6	21359.0	19325.7
72.5°	38.6	60.4	3523.2	4609.9	13066.5	18683.4	23044.5	21124.8	19668.6	18391.2	15073.2
75°	38.6	55.5	2765.0	3745.4	11294.1	17391.5	21395.2	18676.1	16555.9	13457.7	9671.3
77.5°	38.6	53.1	2038.1	2931.6	9425.0	15338.9	18606.1	15350.9	12479.7	7046.4	3559.4
80°	36.2	53.1	1241.2	2067.1	7261.3	12373.5	14621.7	11342.4	6558.6	1772.5	1028.7
82.5°	36.2	50.7	591.6	1323.3	5102.5	8840.6	9540.9	4858.6	1395.8	818.6	818.6
85°	31.4	45.9	316.3	719.6	3334.9	5795.5	4602.6	823.5	545.7	553.0	630.3
87.5°	19.3	24.1	149.7	323.6	1922.2	3098.2	1772.5	301.9	227.0	239.1	357.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P591226

CATALOG NUMBER: CTN-CA10-630-727-U-T4-SSS-HM-EX90

CANDELA DISTRIBUTION (continued):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	8060.6	8060.6	8060.6	8060.6	8060.6	8060.6	8060.6	8060.6	8060.6	8060.6	8060.6
2.5°	8101.7	8089.6	8116.2	8200.7	8186.2	8246.6	8198.3	8282.8	8299.7	8275.6	8314.2
5°	8128.2	8145.2	8234.5	8314.2	8270.7	8367.3	8393.9	8512.2	8509.8	8488.1	8536.4
7.5°	8215.2	8261.1	8350.4	8449.4	8471.2	8548.4	8538.8	8688.5	8671.6	8661.9	8710.2
10°	8364.9	8434.9	8519.4	8683.7	8630.5	8760.9	8671.6	8773.0	8763.3	8739.2	8782.7
12.5°	8531.5	8628.1	8729.5	8879.3	8857.5	8855.1	8775.4	8806.8	8780.2	8722.3	8758.5
15°	8782.7	8901.0	9041.0	9137.6	9009.7	8961.4	8835.8	8768.2	8676.4	8541.2	8562.9
17.5°	9173.9	9313.9	9463.6	9480.5	9282.5	9157.0	8852.7	8611.2	8372.1	8191.0	8207.9
20°	9700.3	9828.3	9939.4	9859.7	9591.6	9311.5	8852.7	8471.2	8024.4	7691.2	7667.0
22.5°	10316.1	10354.7	10461.0	10265.4	9804.1	9412.9	8828.5	8261.1	7534.2	7089.9	7036.8
25°	10980.1	10975.3	10929.4	10523.7	9936.9	9357.4	8645.0	7901.3	6974.0	6510.3	6471.7
27.5°	11702.2	11641.8	11327.9	10741.1	9881.4	9157.0	8297.3	7295.1	6464.4	6066.0	6053.9
30°	12516.0	12356.6	11721.5	10762.8	9673.7	8760.9	7732.2	6684.2	6010.5	5655.5	5621.7
32.5°	13465.0	13153.5	12035.4	10692.8	9299.4	8157.2	7044.0	6203.6	5638.6	5249.8	5174.9
35°	14703.8	14158.0	12325.2	10463.4	8744.0	7440.0	6408.9	5776.2	5293.3	4894.8	4815.1
37.5°	16261.3	15459.6	12762.3	10127.7	8108.9	6800.1	5969.4	5493.7	5054.2	4583.3	4486.7
40°	17990.3	16990.6	13274.2	9801.7	7505.2	6324.4	5682.0	5360.9	4899.6	4382.9	4291.1
42.5°	19627.6	18531.2	14042.1	9379.1	6930.5	5942.8	5578.2	5322.2	4827.2	4295.9	4196.9
45°	21139.2	19886.0	14834.2	8954.1	6346.1	5631.3	5491.3	5208.7	4716.1	4194.5	4081.0
47.5°	22373.2	20953.3	15534.5	8514.6	5831.8	5387.4	5324.7	4991.4	4520.5	4030.3	3924.1
50°	23269.1	21771.9	15945.0	8106.5	5336.7	5143.5	5032.5	4682.3	4245.2	3837.1	3759.9
52.5°	23904.2	22479.5	16150.2	8060.6	4887.6	4815.1	4692.0	4363.6	4013.4	3697.1	3605.3
55°	24394.4	22865.8	15974.0	7792.6	4462.6	4402.2	4274.2	4071.4	3861.3	3566.7	3506.3
57.5°	24660.0	23042.1	15570.7	6573.1	4011.0	3907.2	3890.3	3846.8	3663.3	3371.1	3325.2
60°	24718.0	22762.0	14657.9	4998.7	3537.7	3470.1	3598.1	3542.5	3378.3	3161.0	3095.8
62.5°	24491.0	22163.1	12926.5	3738.1	3144.1	3255.2	3385.6	3301.0	3110.3	2897.8	2856.7
65°	23672.4	20789.1	10417.5	2909.8	2963.0	3153.7	3269.7	3168.2	2936.4	2694.9	2668.4
67.5°	22071.4	18649.6	6858.1	2617.7	2878.5	3069.2	3199.6	3037.8	2803.6	2542.8	2511.4
70°	19069.8	14742.4	3267.2	2441.4	2716.7	2905.0	3008.9	2825.3	2598.3	2342.4	2308.6
72.5°	14727.9	10019.0	1803.9	2248.2	2516.2	2690.1	2765.0	2547.6	2337.5	2231.3	2221.6
75°	8864.8	4305.6	1630.0	2057.4	2257.8	2419.6	2552.5	2388.2	2204.7	1997.0	1943.9
77.5°	2926.7	1250.9	1533.4	1830.4	2057.4	2253.0	2315.8	2156.4	1927.0	1750.7	1736.2
80°	1026.3	1048.0	1429.6	1523.7	1791.8	1956.0	2026.0	1842.5	1733.8	1550.3	1514.1
82.5°	835.5	939.4	1154.3	1149.4	1415.1	1608.3	1714.5	1668.6	1526.2	1378.9	1364.4
85°	683.4	859.7	731.7	804.1	1014.2	1224.3	1427.2	1432.0	1323.3	1173.6	1074.6
87.5°	405.7	439.5	364.6	410.5	536.1	688.2	796.9	760.7	623.0	526.4	514.4
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)