

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: P232717

Luminaire Tested: **CTN-10-8-D-E1-T4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232717
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-20)
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-T4-7030
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 3000K LEDS AND TYPE IV OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 77452 lumens
Efficiency: N/A
Efficacy: 122.7 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Non-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

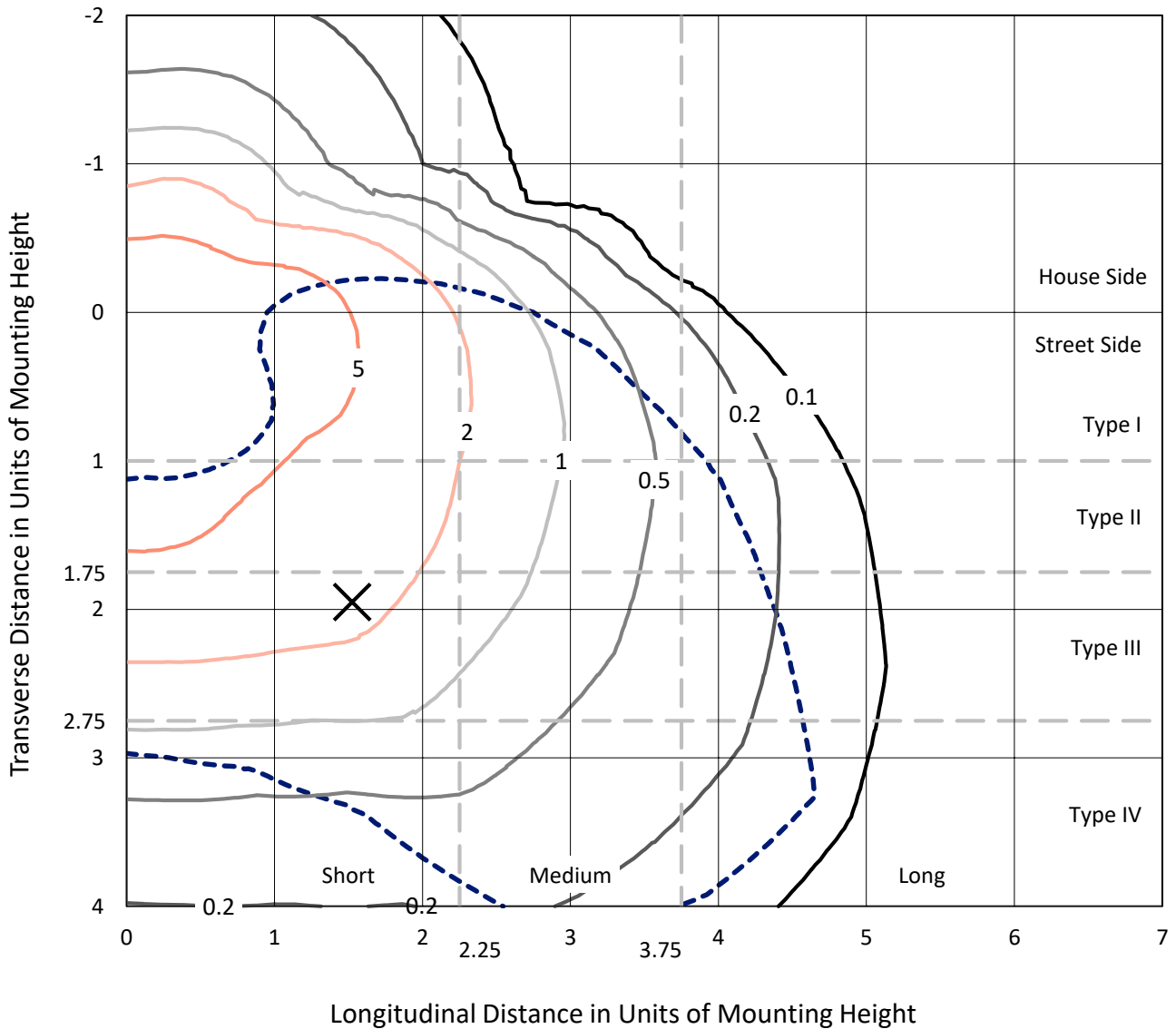


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Iso-Footcandle Lines of Horizontal Illumination

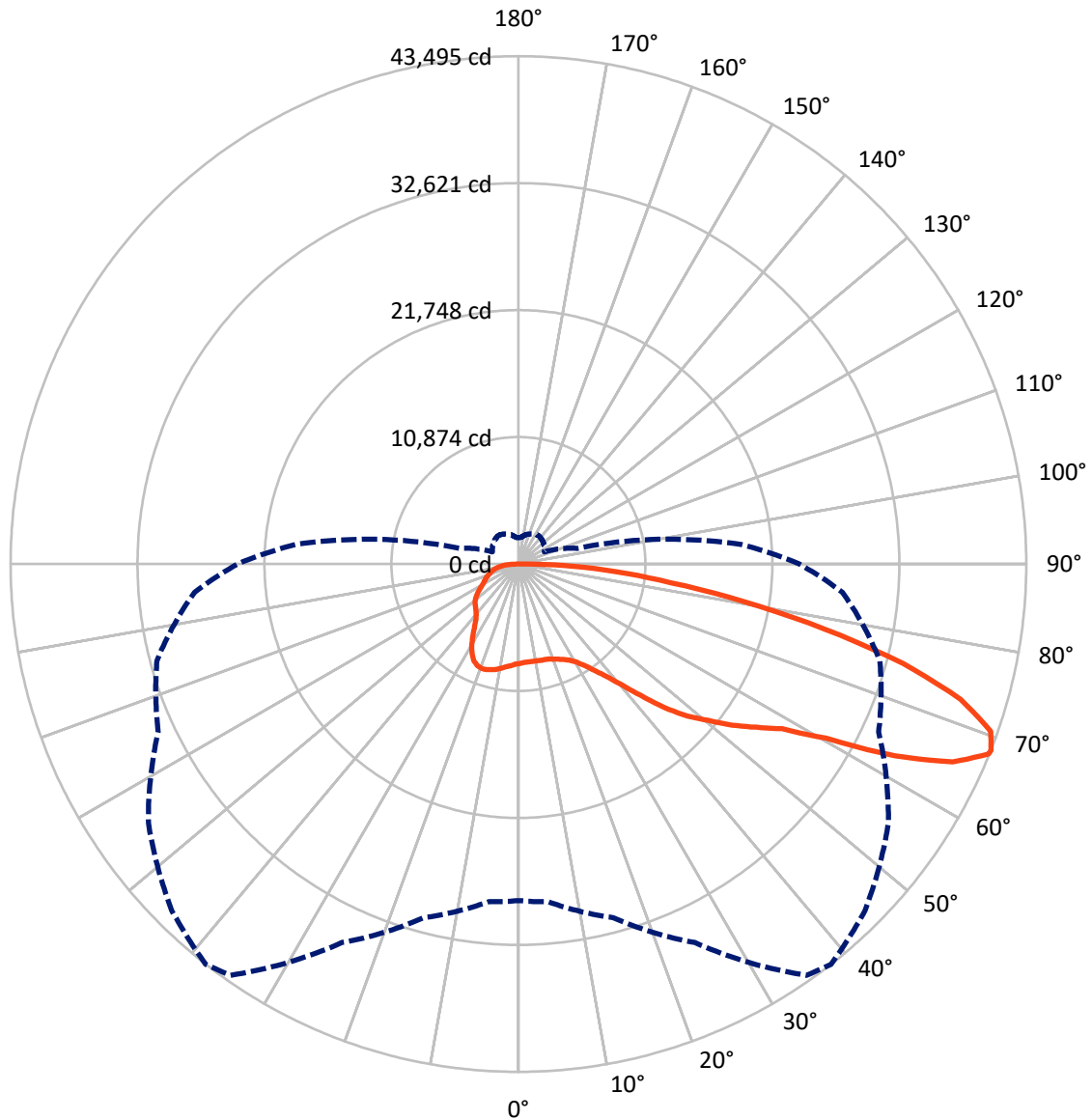
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.8 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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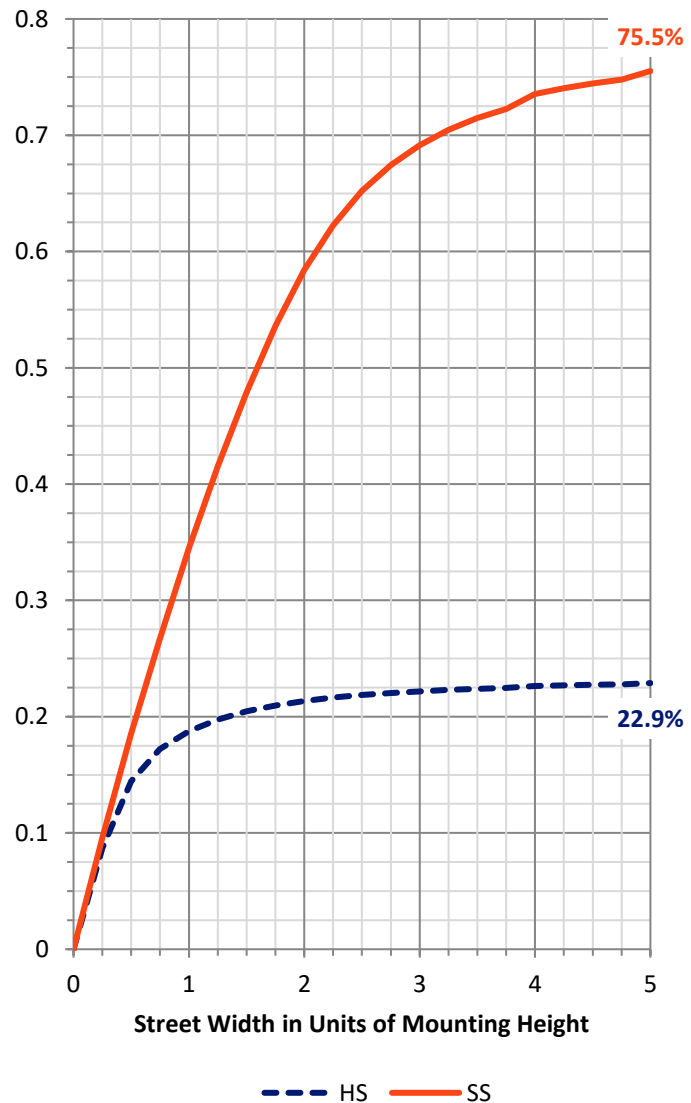
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	18075.6	0.0	18075.6
	% Fixture	23.3	0.0	23.3
Street Side	Lumens	59376.4	0.0	59376.4
	% Fixture	76.7	0.0	76.7
Total	Lumens	77452.0	0.0	77452.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	825.2	1.1
10°-20°	2547.2	3.3
20°-30°	4327.5	5.6
30°-40°	6553.3	8.5
40°-50°	10839.1	14.0
50°-60°	15613.2	20.2
60°-70°	19690.5	25.4
70°-80°	14014.1	18.1
80°-90°	3041.8	3.9
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°	77452.0	100.0
0°-180°	77452.0	100.0



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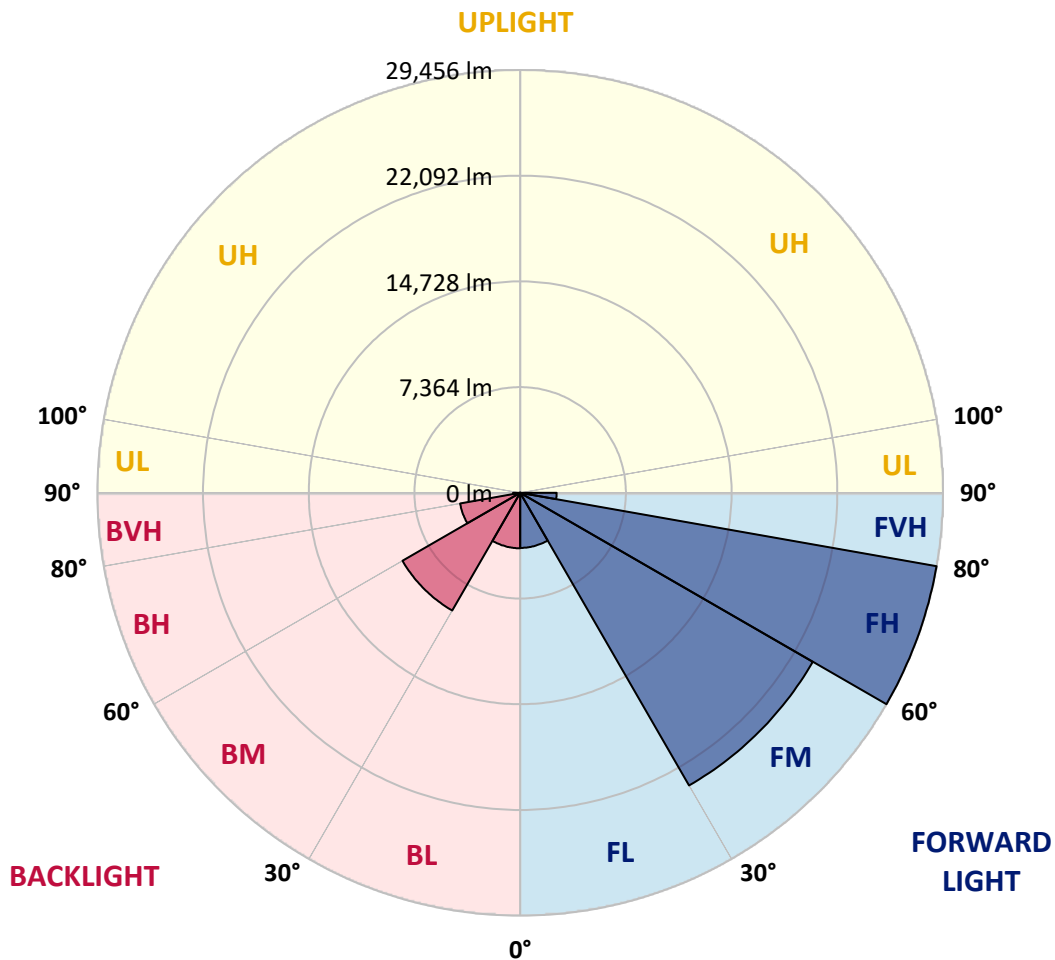
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3837.4	5.0			
FM	(30°-60°)	23540.1	30.4			
FH	(60°-80°)	29456.2	38.0			G5
FVH	(80°-90°)	2542.7	3.3			G5
BL	(0°-30°)	3862.5	5.0	B4/5000		
BM	(30°-60°)	9465.6	12.2	B5		
BH	(60°-80°)	4248.4	5.5	B4/5000		G4/5000
BVH	(80°-90°)	499.2	0.6			G3/500
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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	8532.5	8532.5	8532.5	8532.5	8532.5	8532.5	8532.5	8532.5	8532.5	8532.5	8532.5
2.5°	8502.3	8517.4	8507.3	8502.3	8436.9	8452.0	8477.1	8441.9	8527.5	8522.4	8572.7
5°	8421.8	8429.3	8431.8	8454.5	8391.6	8424.3	8454.5	8431.8	8522.4	8497.3	8567.7
7.5°	8399.1	8396.6	8399.1	8441.9	8374.0	8424.3	8459.5	8452.0	8550.1	8530.0	8615.5
10°	8341.3	8343.8	8351.3	8399.1	8363.9	8431.8	8494.7	8527.5	8658.3	8640.7	8738.8
12.5°	8240.6	8260.7	8288.4	8368.9	8376.5	8467.1	8560.2	8625.6	8796.7	8811.8	8935.1
15°	8152.5	8187.8	8235.6	8343.8	8389.1	8492.2	8610.5	8731.3	8955.2	9023.2	9179.2
17.5°	8180.2	8233.1	8296.0	8406.7	8439.4	8547.6	8680.9	8842.0	9118.8	9264.7	9466.0
20°	8351.3	8386.5	8439.4	8542.6	8585.3	8693.5	8801.7	8960.2	9320.1	9556.6	9805.7
22.5°	8565.2	8615.5	8650.8	8713.7	8764.0	8859.6	8972.8	9128.8	9554.1	9851.0	10193.2
25°	8794.2	8819.3	8869.7	8912.4	8975.3	9050.8	9179.2	9370.4	9820.8	10185.6	10663.7
27.5°	9005.5	9018.1	9113.7	9149.0	9272.3	9327.6	9428.3	9682.4	10168.0	10618.4	11207.2
30°	9315.0	9340.2	9413.2	9496.2	9677.4	9732.7	9835.9	10102.6	10631.0	11207.2	11914.3
32.5°	9901.3	9966.7	9956.7	10044.7	10258.6	10331.6	10472.5	10819.7	11395.9	12057.7	12898.1
35°	11089.0	11182.1	11066.3	10948.1	11061.3	11159.4	11375.8	11884.1	12596.2	13688.2	14518.6
37.5°	13034.0	13127.1	12714.4	12337.0	12090.4	12168.4	12462.8	13182.5	14272.0	16169.2	17095.2
40°	15306.1	15406.8	14833.1	14153.7	13597.6	13567.4	13658.0	14573.9	16146.6	18929.5	19651.6
42.5°	17286.4	17550.6	16800.8	16214.5	15494.9	15374.1	15155.2	16081.1	18129.3	21486.0	21893.6
45°	19211.3	19468.0	18876.7	18471.5	17736.8	17540.5	17125.4	17686.5	20074.4	23722.9	23740.5
47.5°	20977.7	21184.0	20497.1	20237.9	19513.3	19427.7	19002.5	19395.0	21876.0	25617.6	25260.3
50°	22952.9	23169.3	22074.8	21755.2	21171.4	21055.7	20917.3	21199.1	23941.8	27250.6	26551.1
52.5°	25368.5	25288.0	23936.8	23204.5	22895.1	22922.7	22766.7	23078.7	26133.4	28634.5	27567.7
55°	28259.6	27847.0	26362.4	25252.7	24540.7	24676.5	24472.7	24930.7	28299.9	29802.1	28302.4
57.5°	29902.7	30015.9	29875.0	28448.3	26636.7	26616.5	26294.5	26734.8	30192.1	30755.7	28750.3
60°	32298.2	32766.2	32944.8	32559.8	30934.4	30292.7	28679.8	28579.2	31789.9	31578.5	28979.3
62.5°	33812.9	34031.8	35106.2	35571.7	36095.1	36205.8	33644.3	30801.0	32970.0	31998.7	29074.9
65°	33088.2	33309.7	35317.6	37141.9	40246.9	40870.9	40055.6	34321.2	33767.6	32091.8	28755.3
67.5°	29374.3	29646.1	32340.9	36080.0	42758.1	43429.9	42113.9	38379.8	34029.3	32036.5	28060.8
68°	28830.8	29032.1	31357.1	35770.5	43009.7	43495.3	41978.0	38686.8	34044.4	32054.1	27847.0
70°	24653.9	25008.7	27457.0	32954.9	42604.6	42914.1	41130.1	38515.7	33702.2	31767.2	26281.9
72.5°	19216.3	19707.0	21569.0	27371.4	39351.1	39602.7	38108.1	36628.6	32668.0	29776.9	22527.7
75°	13922.2	14342.4	16134.0	21123.6	33128.5	34021.8	33770.1	34036.9	29283.7	25230.1	16315.1
77.5°	9614.5	9974.3	11645.0	15761.6	25688.1	26817.8	28123.7	28815.7	24062.6	18718.1	7755.0
80°	6159.7	6436.5	7858.1	11099.0	18524.4	19586.2	20992.8	21709.9	17115.3	9415.7	1376.4
82.5°	3620.8	3809.6	4780.8	7161.2	12485.5	13132.1	13811.5	12608.8	6869.3	1801.6	868.1
85°	1799.1	1924.9	2521.2	4051.1	7762.5	8356.4	8582.8	5379.7	1451.9	659.2	591.3
87.5°	805.2	840.4	1082.0	1824.3	3688.8	3887.6	3791.9	1673.3	291.9	246.6	211.4
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°	8532.5	8532.5	8532.5	8532.5	8532.5	8532.5	8532.5	8532.5	8532.5	8532.5	8532.5
2.5°	8577.8	8557.7	8552.6	8585.3	8550.1	8592.9	8580.3	8675.9	8688.5	8653.3	8711.1
5°	8590.4	8580.3	8587.8	8648.2	8635.7	8723.7	8746.4	8842.0	8842.0	8814.3	8874.7
7.5°	8648.2	8648.2	8670.9	8781.6	8781.6	8857.1	8882.2	8987.9	8985.4	8985.4	9040.8
10°	8794.2	8794.2	8842.0	8982.9	8947.7	9045.8	9058.4	9113.7	9101.2	9103.7	9161.5
12.5°	9010.6	9023.2	9106.2	9229.5	9206.8	9242.1	9216.9	9206.8	9116.3	9116.3	9154.0
15°	9259.7	9312.5	9425.7	9539.0	9463.5	9450.9	9307.5	9181.7	8987.9	8904.9	8947.7
17.5°	9584.3	9674.9	9805.7	9886.2	9742.8	9639.6	9380.5	9053.3	8738.8	8555.1	8560.2
20°	9944.1	10064.9	10225.9	10253.6	10042.2	9785.6	9352.8	8839.5	8298.5	8006.6	7986.5
22.5°	10344.2	10495.1	10681.3	10573.1	10228.4	9810.7	9191.7	8509.8	7782.7	7292.0	7284.4
25°	10832.3	10995.9	11114.1	10812.2	10271.2	9682.4	8912.4	7996.5	7098.2	6569.8	6534.6
27.5°	11453.8	11562.0	11473.9	10935.5	10142.9	9375.4	8439.4	7337.3	6386.2	5908.1	5855.2
30°	12191.1	12178.5	11700.4	10900.2	9883.7	8889.8	7795.2	6622.7	5802.4	5392.3	5344.4
32.5°	13086.8	12905.7	11919.3	10731.7	9466.0	8253.2	7030.3	6028.9	5379.7	4964.5	4914.2
35°	14516.1	14005.3	12203.6	10477.5	8884.8	7485.7	6308.2	5570.9	5052.6	4577.0	4478.9
37.5°	16732.8	15655.9	12676.7	10210.8	8218.0	6733.4	5769.7	5238.8	4795.9	4257.4	4141.7
40°	19012.5	17573.3	13396.3	9924.0	7593.9	6164.7	5465.2	5082.8	4639.9	4121.6	4005.8
42.5°	20992.8	19362.3	14259.4	9564.1	6954.8	5716.8	5309.2	5032.4	4589.6	4096.4	3985.7
45°	22741.6	20970.1	15160.2	9146.4	6285.5	5354.5	5175.9	4962.0	4514.1	4038.5	3937.9
47.5°	24198.5	22250.9	15952.8	8683.5	5628.8	5087.8	5045.0	4795.9	4370.7	3912.7	3827.2
50°	25325.7	23161.8	16483.7	8167.6	5067.7	4878.9	4856.3	4541.8	4129.1	3691.3	3605.7
52.5°	26125.9	23773.2	16793.2	7973.9	4627.3	4637.4	4599.6	4265.0	3864.9	3429.6	3361.7
55°	26634.1	24193.4	16717.7	7724.8	4182.0	4297.7	4302.7	4061.2	3708.9	3286.2	3230.8
57.5°	26827.9	24175.8	16272.4	6476.7	3749.2	3890.1	3958.0	3920.3	3608.3	3195.6	3150.3
60°	26722.2	23891.5	15323.8	4745.6	3301.3	3492.5	3658.6	3651.0	3386.8	2996.8	2949.0
62.5°	26546.1	23232.2	13464.3	3396.9	2964.1	3210.7	3412.0	3344.1	3092.4	2750.2	2717.5
65°	25914.5	22069.7	10409.6	2717.5	2823.2	3052.2	3218.2	3102.5	2855.9	2498.6	2481.0
67.5°	24518.0	19744.7	6076.7	2478.5	2720.0	2918.8	3037.1	2893.6	2664.7	2317.4	2287.2
68°	24045.0	19148.4	5168.3	2455.8	2699.9	2886.1	2994.3	2843.3	2619.4	2282.2	2252.0
70°	21657.1	15520.0	2465.9	2362.7	2611.8	2735.1	2798.0	2659.6	2440.7	2141.3	2121.2
72.5°	16856.1	9362.8	1648.1	2221.8	2440.7	2559.0	2574.1	2357.7	2151.4	1929.9	1917.4
75°	9959.2	3107.5	1532.4	2013.0	2204.2	2367.8	2410.5	2194.1	1965.2	1708.5	1703.5
77.5°	2425.6	1205.3	1446.8	1796.6	1997.9	2156.4	2189.1	2030.6	1829.3	1539.9	1529.9
80°	998.9	1001.5	1348.7	1489.6	1713.5	1867.0	1914.8	1773.9	1592.8	1406.6	1386.4
82.5°	830.4	845.4	1144.9	1099.6	1371.3	1550.0	1597.8	1499.7	1436.8	1235.5	1215.3
85°	591.3	749.8	759.9	739.8	961.2	1104.6	1346.2	1298.4	1230.4	1059.3	958.7
87.5°	276.8	437.8	329.6	317.0	488.1	654.2	770.0	807.7	699.5	543.5	503.2
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)