

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: P591026

Luminaire Tested: **CTN-CA8-230-722-U-T3-HSS-HM-EX120**

Issue Date: 12/14/2021

Test Information

Test Method: LM-79-08
Report Number: P591026
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2112-474-2)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 12/14/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-230-722-U-T3-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (8) 2200K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26593 lumens
Efficiency: N/A
Efficacy: 116.4 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

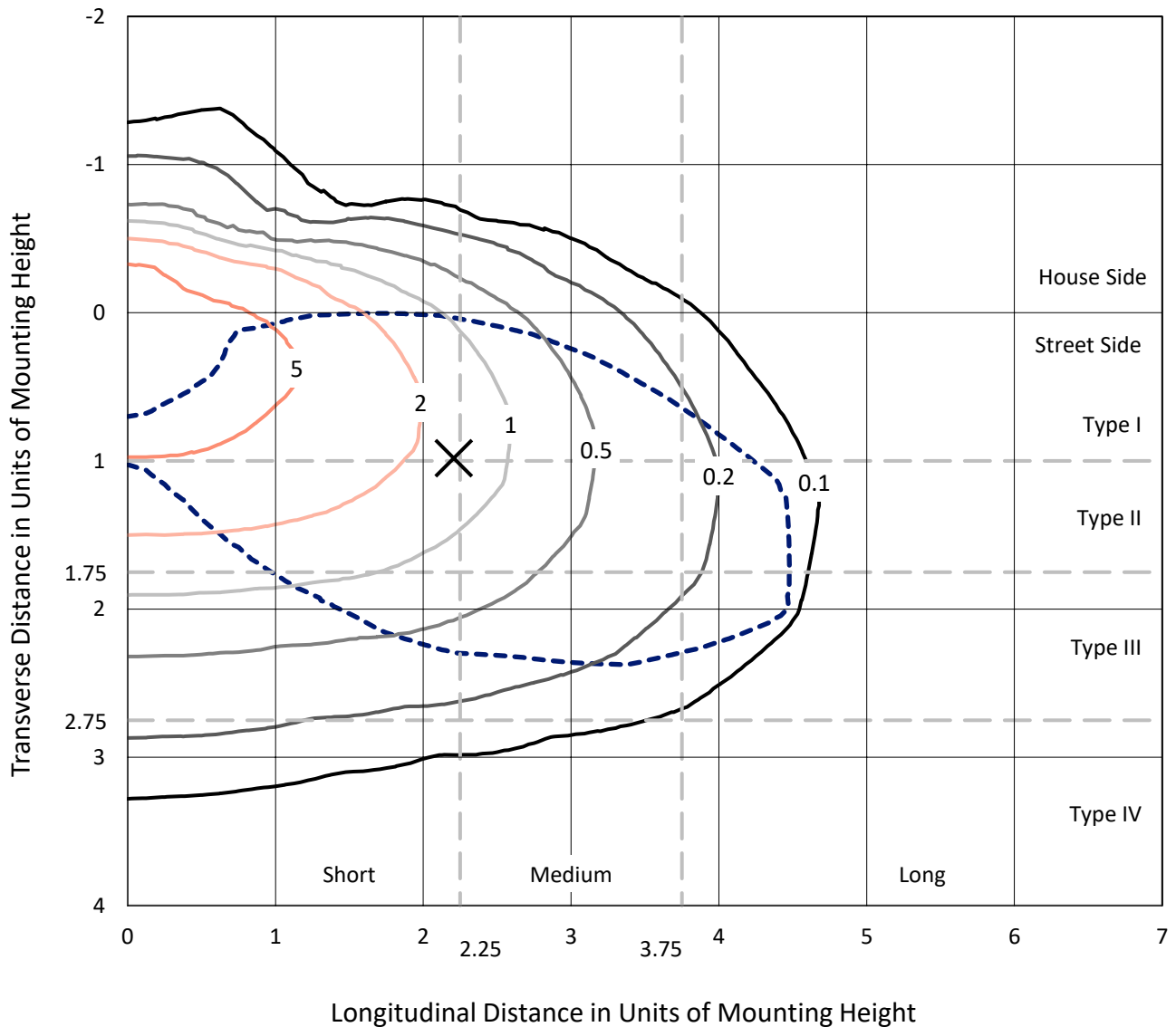
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

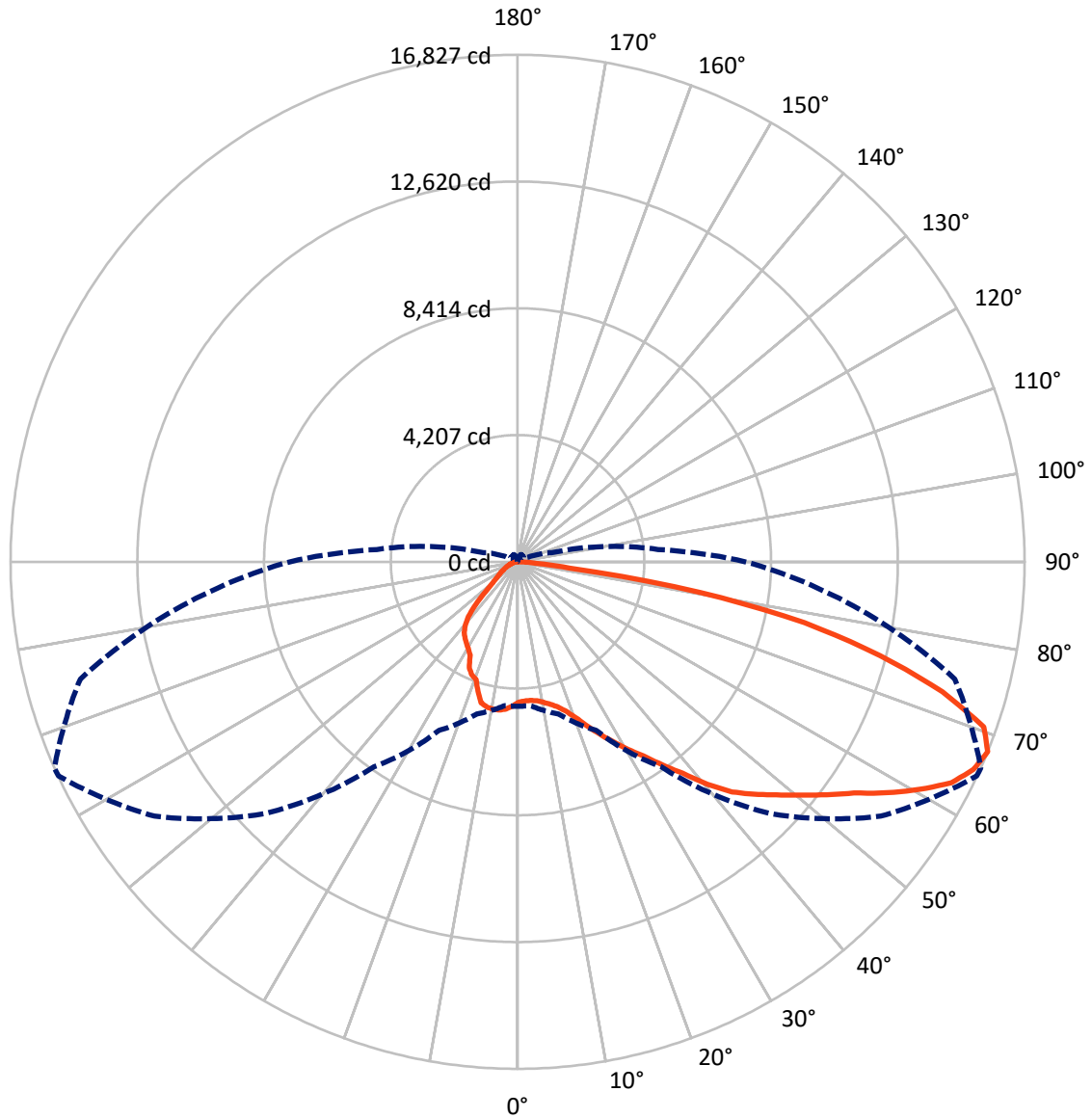
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.3 fc
 Type III - Short - N/A

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CATALOG NUMBER: CTN-CA8-230-722-U-T3-HSS-HM-EX120

Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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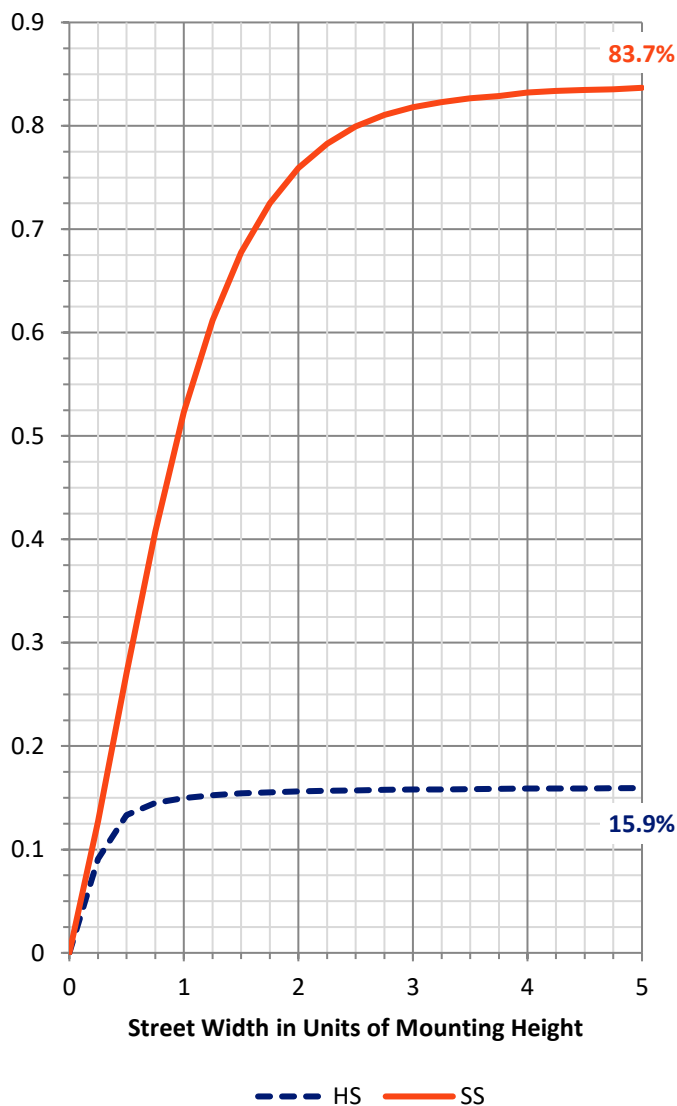
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4292.7	0.0	4292.7
	% Fixture	16.1	0.0	16.1
Street Side	Lumens	22300.3	0.0	22300.3
	% Fixture	83.9	0.0	83.9
Total	Lumens	26593.0	0.0	26593.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	461.4	1.7
10°-20°	1391.2	5.2
20°-30°	2261.5	8.5
30°-40°	3303.4	12.4
40°-50°	4399.9	16.5
50°-60°	5322.4	20.0
60°-70°	5698.2	21.4
70°-80°	3381.7	12.7
80°-90°	373.4	1.4
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°	26593.0	100.0
0°-180°	26593.0	100.0

Coefficient of Utilization



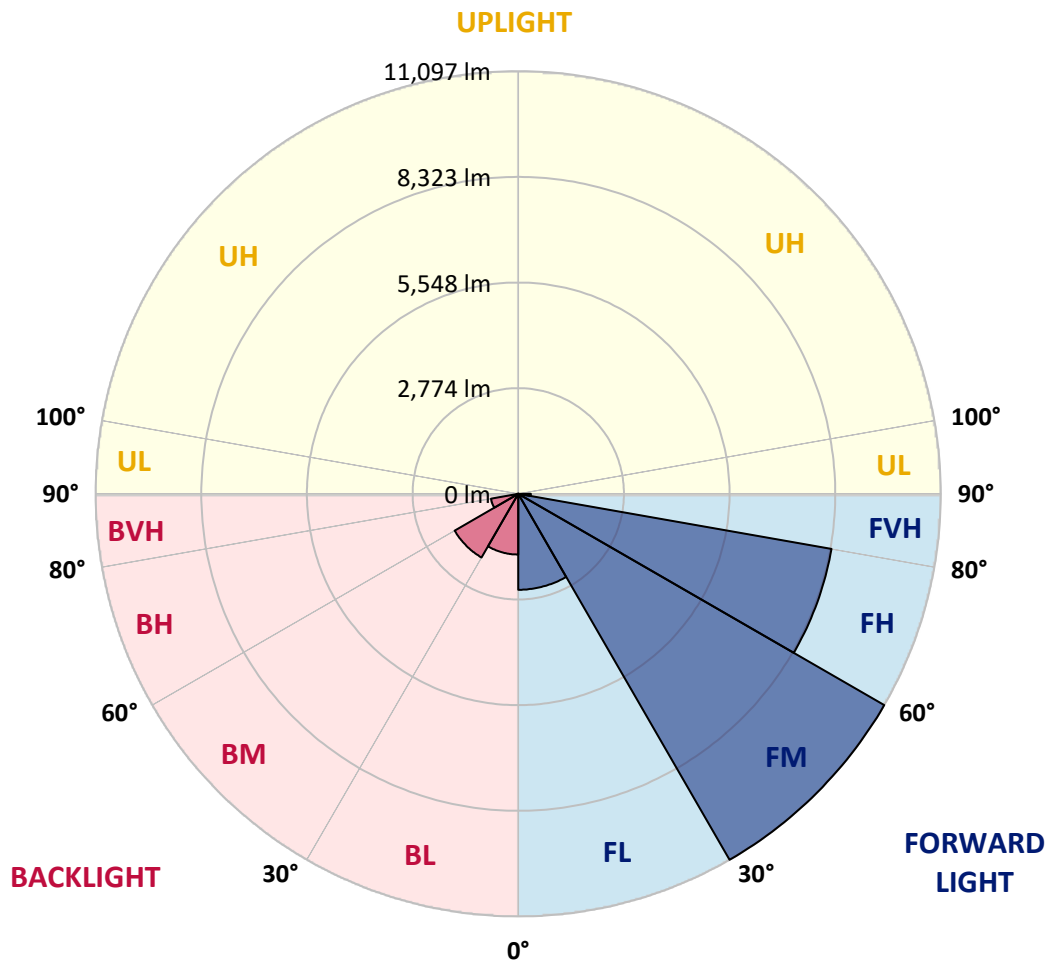
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 CATALOG NUMBER: CTN-CA8-230-722-U-T3-HSS-HM-EX120

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2519.8	9.5			
FM	(30°-60°)	11096.8	41.7			
FH	(60°-80°)	8352.7	31.4			G4/12000
FVH	(80°-90°)	331.0	1.2			G3/500
BL	(0°-30°)	1594.2	6.0	B3/2500		
BM	(30°-60°)	1928.9	7.3	B2/2500		
BH	(60°-80°)	727.1	2.7	B2/1000		G2/1000
BVH	(80°-90°)	42.4	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 Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	4656.6	4656.6	4656.6	4656.6	4656.6	4656.6	4656.6	4656.6	4656.6	4656.6	4656.6
2.5°	4596.8	4570.8	4582.5	4613.1	4554.5	4591.7	4565.4	4611.4	4624.0	4629.0	4647.4
5°	4686.8	4652.5	4653.3	4672.6	4606.0	4622.3	4577.5	4609.7	4619.8	4633.2	4678.0
7.5°	4844.7	4806.6	4803.2	4808.2	4725.3	4706.9	4643.7	4650.4	4657.9	4665.9	4724.1
10°	5061.6	5022.6	5015.9	5003.0	4893.7	4845.5	4751.7	4737.0	4744.2	4731.2	4800.3
12.5°	5322.1	5275.2	5250.5	5213.2	5086.7	5011.3	4887.4	4847.2	4853.5	4826.2	4874.4
15°	5595.9	5546.1	5532.7	5475.3	5319.5	5216.5	5056.1	4995.0	4996.7	4965.3	4963.2
17.5°	5888.2	5843.8	5832.9	5796.5	5624.0	5501.3	5303.2	5220.3	5214.0	5183.0	5090.9
20°	6219.9	6191.8	6186.0	6165.0	6008.8	5865.2	5639.9	5528.5	5522.2	5473.2	5276.4
22.5°	6627.8	6594.7	6577.1	6559.1	6442.2	6292.8	6050.7	5893.7	5918.4	5835.9	5517.2
25°	7033.5	7007.2	6992.1	6980.4	6884.0	6742.5	6497.5	6313.3	6338.0	6249.6	5809.9
27.5°	7436.4	7378.2	7402.5	7430.1	7333.8	7221.1	6954.8	6754.2	6761.8	6666.3	6160.4
30°	7810.8	7780.2	7822.1	7848.0	7777.7	7689.7	7410.0	7216.1	7227.4	7113.9	6562.4
32.5°	8143.3	8099.3	8192.7	8243.3	8201.5	8129.0	7858.9	7675.1	7678.4	7609.8	7042.3
35°	8387.4	8390.3	8519.3	8655.4	8655.0	8552.8	8323.3	8237.9	8276.9	8246.3	7631.1
37.5°	8636.1	8614.0	8763.0	8965.3	9031.5	8940.6	8804.5	8855.2	8907.5	9001.3	8187.2
40°	8753.8	8754.7	8935.1	9168.8	9321.7	9304.5	9256.8	9595.5	9704.0	9732.1	7964.5
42.5°	8611.9	8621.9	8943.9	9357.3	9594.7	9685.6	9790.3	10367.3	10440.6	10281.9	8227.0
45°	8425.9	8439.7	8817.9	9422.2	9836.7	10092.6	10381.1	10944.0	11000.9	10789.8	8608.9
47.5°	8251.3	8276.9	8670.5	9383.2	10028.5	10551.2	10909.6	11487.1	11556.6	11278.1	8964.9
50°	8021.8	8078.8	8480.4	9279.8	10173.0	10950.2	11397.9	12140.8	12167.6	11754.7	9285.7
52.5°	7799.9	7816.6	8265.1	9147.5	10281.9	11312.0	11980.4	12812.5	12843.5	12276.5	9581.7
55°	7495.9	7521.0	8022.2	8981.6	10348.9	11615.2	12570.0	13512.6	13540.3	12903.3	9900.0
57.5°	7161.3	7179.7	7707.3	8727.0	10298.6	11884.5	13198.6	14394.6	14462.4	13548.2	10186.0
60°	6741.2	6765.5	7301.1	8374.0	10125.3	12198.6	13975.0	15337.2	15337.2	14140.4	10412.5
62.5°	6149.5	6183.5	6725.8	7865.6	9765.1	12380.3	14594.7	16158.0	16152.5	14606.9	10489.2
65°	5461.9	5467.4	5959.0	7150.4	9167.1	12283.6	14830.9	16637.5	16625.3	14944.4	10383.6
67.5°	4794.8	4789.0	5225.3	6172.1	8304.9	11807.4	14718.3	16812.5	16827.2	15025.6	9990.4
70°	3848.4	3840.9	4242.1	5015.9	7000.9	10781.9	14078.0	16368.2	16412.6	14561.6	9337.6
72.5°	2753.8	2742.5	2934.7	3446.4	5141.2	8869.4	12481.6	14660.5	14741.7	13075.5	8145.4
75°	1612.7	1624.8	1825.4	2119.8	3053.2	5834.6	10123.6	12312.1	12428.0	11123.2	6406.7
77.5°	897.0	894.5	1041.9	1263.4	1501.7	2922.1	7067.5	9696.0	9735.4	8716.1	4308.2
80°	433.0	430.9	470.7	593.8	856.4	1312.8	3471.1	6024.3	6143.7	5297.4	2106.4
82.5°	311.6	313.2	335.4	325.8	319.5	579.1	1158.3	1897.4	1732.4	1337.1	651.2
85°	234.1	234.1	254.2	234.5	229.1	294.8	563.2	678.0	650.8	595.1	386.9
87.5°	110.1	104.7	111.4	105.5	98.0	130.7	247.1	286.4	265.1	231.2	169.2
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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CATALOG NUMBER: CTN-CA8-230-722-U-T3-HSS-HM-EX120

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4656.6	4656.6	4656.6	4656.6	4656.6	4656.6	4656.6	4656.6	4656.6	4656.6	4656.6
2.5°	4678.8	4688.1	4736.2	4799.0	4804.9	4858.9	4875.7	4942.7	4940.1	4921.7	4941.0
5°	4710.2	4738.3	4820.8	4909.2	4931.8	4999.6	5014.3	5080.0	5084.2	5061.6	5080.4
7.5°	4760.5	4801.5	4879.4	4966.9	4977.0	5037.3	5034.8	5097.2	5086.3	5066.6	5091.7
10°	4822.1	4853.9	4905.8	4963.6	4959.0	5007.1	4992.1	5036.9	5014.3	4998.4	5027.2
12.5°	4884.0	4885.3	4889.5	4925.9	4897.4	4908.3	4878.6	4911.7	4876.9	4850.1	4867.7
15°	4946.0	4910.8	4851.8	4829.2	4750.0	4709.4	4666.7	4706.5	4625.2	4582.5	4593.4
17.5°	5033.5	4948.9	4750.4	4463.2	4219.5	4085.0	3984.1	3906.2	3907.9	3946.4	3969.5
20°	5103.5	4781.9	4296.9	4119.4	3937.2	3691.4	3309.9	3205.2	3136.1	3134.9	3146.2
22.5°	5078.8	4605.1	4297.3	4019.7	3623.6	3132.3	2967.4	2871.5	2710.2	2365.6	2337.5
25°	5306.1	4761.8	4322.1	3813.7	3124.0	2874.8	2648.3	2461.9	2054.9	1990.8	1988.3
27.5°	5578.8	4973.2	4355.6	3368.9	2924.2	2588.0	2299.8	1849.7	1654.5	1626.9	1617.3
30°	5894.1	5222.4	4151.2	3226.6	2711.5	2254.2	1872.3	1420.4	1261.7	1252.1	1254.6
32.5°	6289.4	5506.7	3938.0	3109.3	2454.0	1867.7	1276.8	1083.3	992.5	893.2	925.0
35°	6710.7	5343.0	4065.4	2964.4	2131.5	1404.5	969.9	860.6	786.9	658.3	606.0
37.5°	6544.8	5455.6	4213.2	2805.3	1728.7	952.3	750.4	655.8	586.7	479.5	477.4
40°	6749.2	5778.1	4318.7	2549.0	1250.0	675.5	546.9	507.5	475.7	416.3	407.9
42.5°	7110.2	6059.5	4390.3	2220.3	747.1	502.5	466.9	472.8	445.1	399.5	394.1
45°	7465.7	6305.7	4322.9	1719.0	531.4	453.1	455.2	452.7	419.2	402.4	396.6
47.5°	7789.4	6513.9	4133.2	1134.0	461.1	441.8	446.4	435.1	397.4	387.8	386.9
50°	8067.5	6733.7	3272.6	868.9	443.5	426.7	436.8	418.3	353.4	343.0	332.1
52.5°	8238.7	6368.1	2907.5	667.5	425.0	403.3	406.2	421.3	332.9	265.1	248.3
55°	8212.8	5736.6	2703.1	555.7	395.7	370.6	376.5	400.8	301.1	207.3	187.6
57.5°	8336.3	5684.7	2491.2	472.8	341.3	335.8	324.1	365.2	273.9	137.4	130.2
60°	8316.2	5678.4	2223.2	371.9	301.5	282.2	267.6	297.3	196.4	51.1	46.5
62.5°	8283.6	5517.2	1918.8	333.3	277.6	270.1	257.5	291.0	167.1	35.6	26.4
65°	8119.8	5255.5	1573.7	291.9	259.2	243.7	242.9	275.5	137.8	19.7	8.8
67.5°	7560.8	4685.5	1170.9	268.8	248.3	240.4	255.0	265.5	132.3	20.1	8.0
70°	6865.6	3933.9	755.4	242.5	232.8	237.0	249.2	268.4	128.6	18.4	7.1
72.5°	5740.8	3043.2	458.1	216.5	210.6	223.2	245.8	268.4	118.9	15.5	5.9
75°	4367.3	2029.7	340.9	191.4	184.7	200.6	224.0	258.0	116.8	13.4	3.8
77.5°	2711.5	958.5	268.8	160.8	153.7	170.0	188.0	212.7	118.5	13.0	2.1
80°	1096.7	400.3	211.1	129.4	120.6	129.4	152.4	181.3	94.2	18.4	0.0
82.5°	461.5	281.8	172.5	103.0	96.3	85.0	103.9	134.4	74.1	14.7	0.0
85°	305.3	195.6	123.5	69.9	61.6	41.5	50.7	60.7	42.3	0.0	0.0
87.5°	138.2	86.7	54.0	23.9	20.1	11.3	6.7	5.9	0.0	0.0	0.0
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)