

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: P232731

Luminaire Tested: **CTN-10-4-D-E1-T4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232731
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-10-4-D-E1-T4-7050
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 5000K LEDS AND TYPE IV OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 42889 lumens
Efficiency: N/A
Efficacy: 139.2 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B4 - U0 - G5

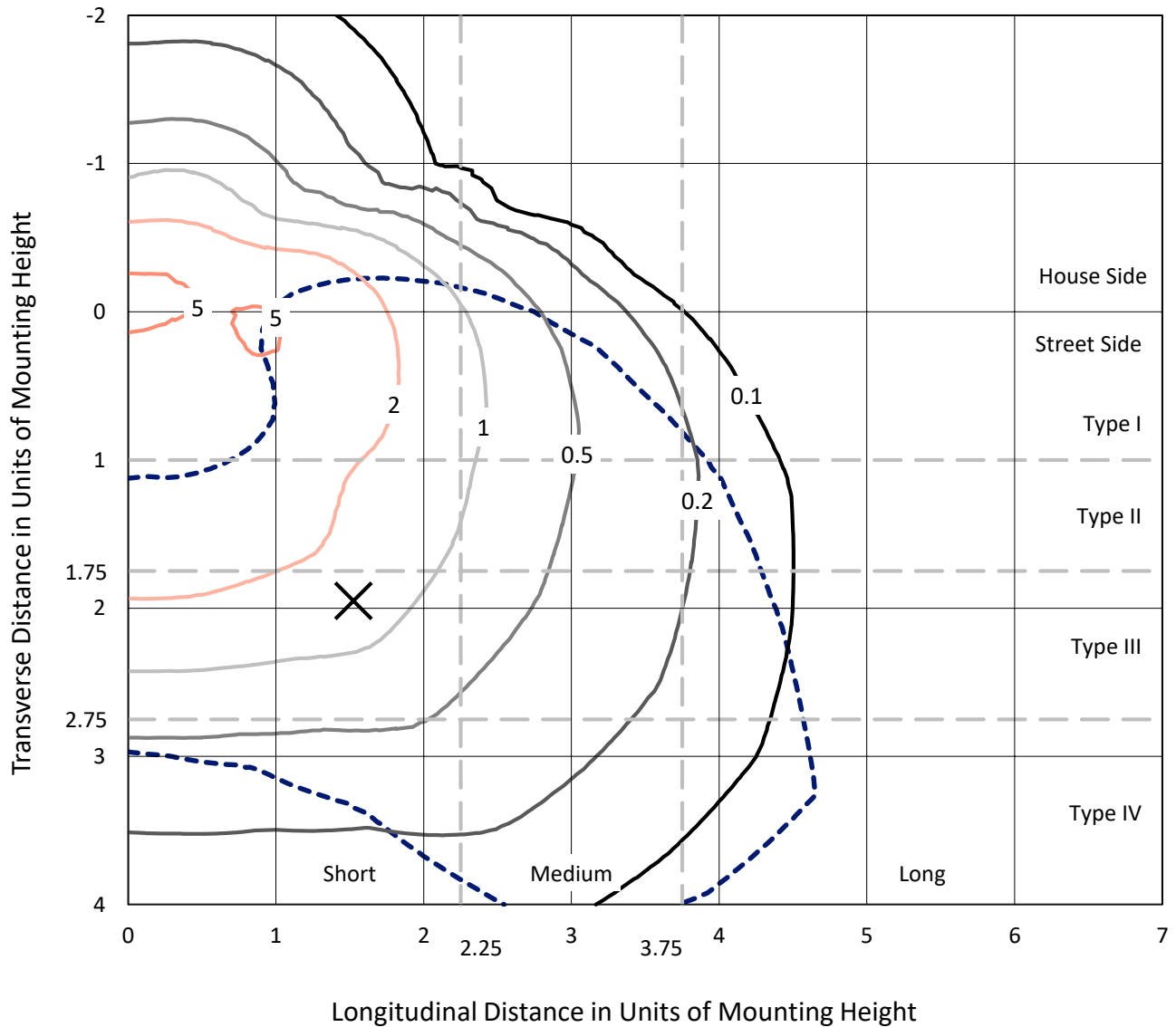
Input Watts (W): 308
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

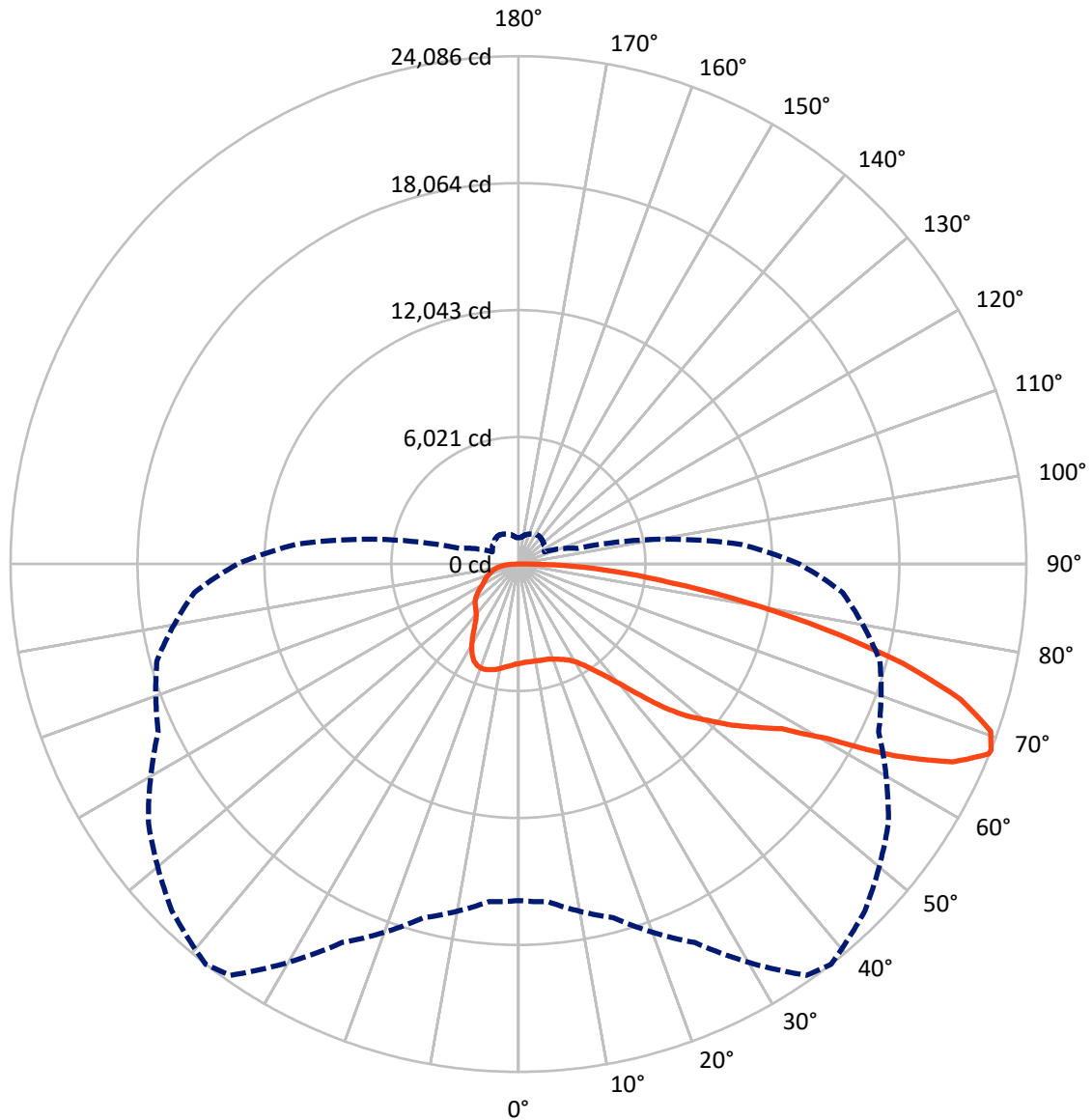


Based on 30 foot mounting height. Maximum calculated value = 5.4 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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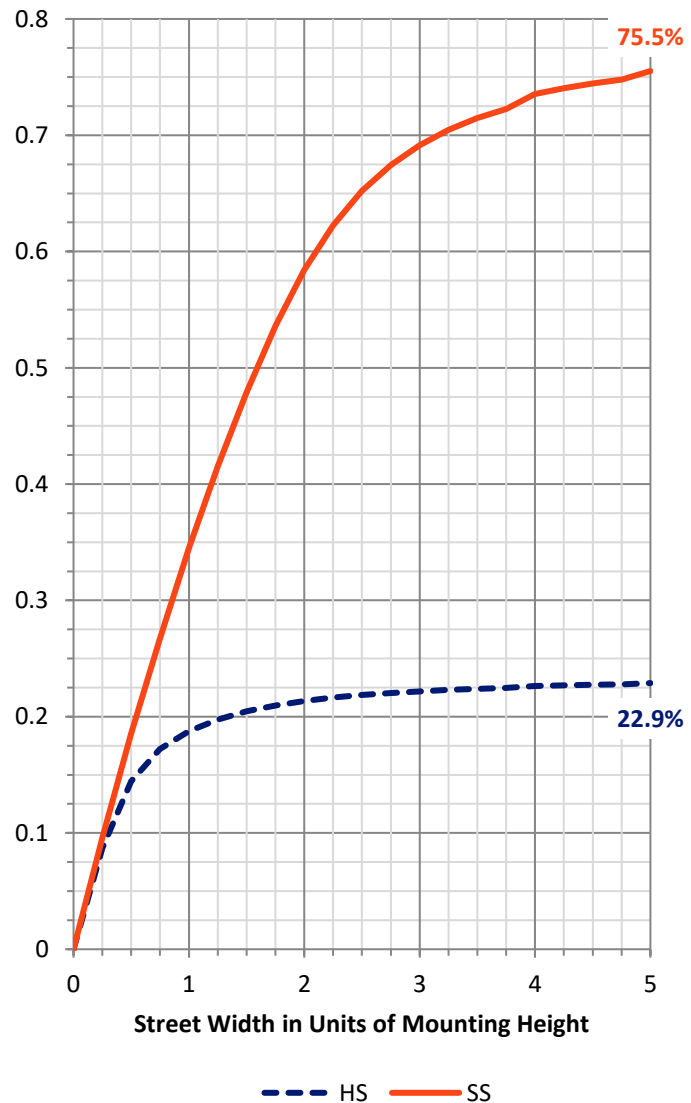
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10009.4	0.0	10009.4
	% Fixture	23.3	0.0	23.3
Street Side	Lumens	32879.6	0.0	32879.6
	% Fixture	76.7	0.0	76.7
Total	Lumens	42889.0	0.0	42889.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	456.9	1.1
10°-20°	1410.5	3.3
20°-30°	2396.3	5.6
30°-40°	3628.9	8.5
40°-50°	6002.2	14.0
50°-60°	8645.8	20.2
60°-70°	10903.6	25.4
70°-80°	7760.3	18.1
80°-90°	1684.4	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°	42889.0	100.0
0°-180°	42889.0	100.0



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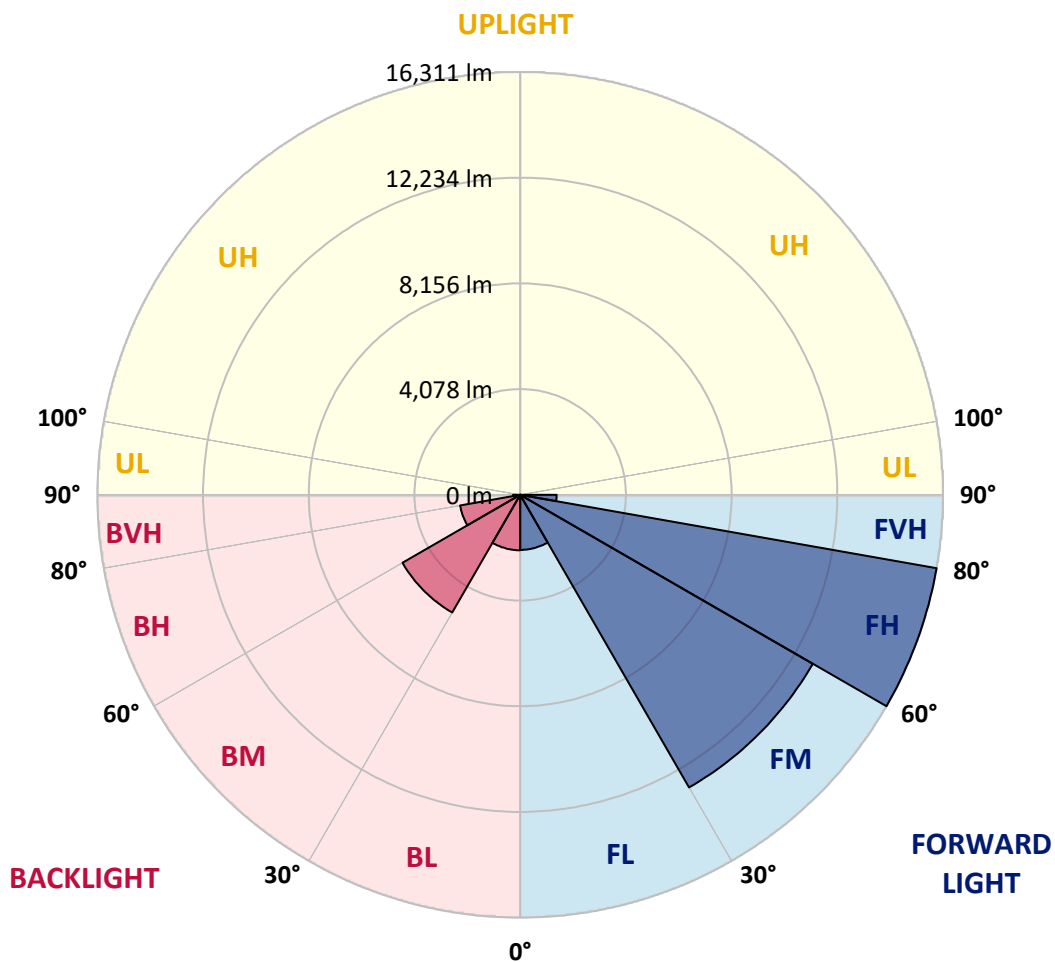
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2124.9	5.0			
FM	(30°-60°)	13035.3	30.4			
FH	(60°-80°)	16311.4	38.0			G5
FVH	(80°-90°)	1408.0	3.3			G5
BL	(0°-30°)	2138.8	5.0	B3/2500		
BM	(30°-60°)	5241.6	12.2	B4/8500		
BH	(60°-80°)	2352.5	5.5	B3/2500		G3/2500
BVH	(80°-90°)	276.4	0.6			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	4724.9	4724.9	4724.9	4724.9	4724.9	4724.9	4724.9	4724.9	4724.9	4724.9	4724.9
2.5°	4708.1	4716.5	4710.9	4708.1	4671.9	4680.3	4694.2	4674.7	4722.1	4719.3	4747.2
5°	4663.6	4667.7	4669.1	4681.7	4646.8	4664.9	4681.7	4669.1	4719.3	4705.4	4744.4
7.5°	4651.0	4649.6	4651.0	4674.7	4637.1	4664.9	4684.5	4680.3	4734.6	4723.5	4770.8
10°	4619.0	4620.4	4624.5	4651.0	4631.5	4669.1	4704.0	4722.1	4794.5	4784.8	4839.1
12.5°	4563.2	4574.4	4589.7	4634.3	4638.5	4688.6	4740.2	4776.4	4871.2	4879.5	4947.8
15°	4514.5	4534.0	4560.4	4620.4	4645.4	4702.6	4768.1	4834.9	4958.9	4996.6	5083.0
17.5°	4529.8	4559.1	4593.9	4655.2	4673.3	4733.2	4807.1	4896.2	5049.5	5130.3	5241.8
20°	4624.5	4644.0	4673.3	4730.4	4754.1	4814.0	4873.9	4961.7	5161.0	5292.0	5429.9
22.5°	4743.0	4770.8	4790.3	4825.2	4853.0	4906.0	4968.7	5055.1	5290.6	5455.0	5644.5
25°	4869.8	4883.7	4911.6	4935.3	4970.1	5011.9	5083.0	5188.8	5438.3	5640.3	5905.0
27.5°	4986.8	4993.8	5046.7	5066.2	5134.5	5165.2	5220.9	5361.6	5630.5	5880.0	6206.0
30°	5158.2	5172.1	5212.5	5258.5	5358.8	5389.5	5446.6	5594.3	5886.9	6206.0	6597.5
32.5°	5482.8	5519.1	5513.5	5562.3	5680.7	5721.1	5799.1	5991.4	6310.5	6676.9	7142.3
35°	6140.5	6192.1	6128.0	6062.5	6125.2	6179.5	6299.4	6580.8	6975.1	7579.8	8039.6
37.5°	7217.6	7269.1	7040.6	6831.6	6695.1	6738.3	6901.3	7299.8	7903.1	8953.7	9466.4
40°	8475.8	8531.5	8213.8	7837.6	7529.7	7513.0	7563.1	8070.3	8941.1	10482.2	10882.1
42.5°	9572.3	9718.6	9303.4	8978.8	8580.3	8513.4	8392.2	8904.9	10039.1	11897.8	12123.6
45°	10638.3	10780.4	10452.9	10228.6	9821.7	9713.1	9483.2	9793.9	11116.2	13136.5	13146.3
47.5°	11616.4	11730.6	11350.3	11206.7	10805.5	10758.1	10522.6	10740.0	12113.8	14185.7	13987.9
50°	12710.2	12830.0	12223.9	12046.9	11723.7	11659.6	11582.9	11739.0	13257.8	15090.0	14702.7
52.5°	14047.8	14003.2	13255.0	12849.5	12678.1	12693.4	12607.1	12779.8	14471.4	15856.4	15265.6
55°	15648.8	15420.2	14598.2	13983.7	13589.4	13664.6	13551.8	13805.3	15671.0	16502.9	15672.4
57.5°	16558.6	16621.3	16543.3	15753.3	14750.0	14738.9	14560.5	14804.4	16718.8	17031.0	15920.5
60°	17885.1	18144.2	18243.2	18030.0	17129.9	16774.6	15881.4	15825.7	17603.6	17486.6	16047.2
62.5°	18723.9	18845.1	19440.1	19697.8	19987.7	20049.0	18630.5	17056.0	18257.1	17719.3	16100.2
65°	18322.6	18445.2	19557.1	20567.3	22286.7	22632.2	22180.8	19005.3	18698.8	17770.8	15923.2
67.5°	16266.0	16416.5	17908.8	19979.3	23677.3	24049.3	23320.6	21252.8	18843.7	17740.2	15538.7
68°	15965.0	16076.5	17364.0	19807.9	23816.6	24085.5	23245.3	21422.8	18852.1	17749.9	15420.2
70°	13652.1	13848.5	15204.3	18248.7	23592.3	23763.6	22775.8	21328.1	18662.6	17591.1	14553.6
72.5°	10641.0	10912.7	11943.8	15156.9	21790.7	21930.0	21102.3	20283.0	18089.9	16488.9	12474.7
75°	7709.4	7942.1	8934.2	11697.2	18344.9	18839.5	18700.2	18847.9	16215.8	13971.2	9034.5
77.5°	5324.0	5523.3	6448.4	8728.0	14224.7	14850.4	15573.5	15956.7	13324.6	10365.2	4294.3
80°	3410.9	3564.2	4351.4	6146.1	10257.9	10845.9	11624.7	12021.9	9477.6	5213.9	762.2
82.5°	2005.0	2109.5	2647.4	3965.5	6913.8	7271.9	7648.1	6982.1	3803.9	997.6	480.7
85°	996.2	1065.9	1396.1	2243.3	4298.5	4627.3	4752.7	2979.0	804.0	365.1	327.4
87.5°	445.9	465.4	599.1	1010.2	2042.7	2152.7	2099.8	926.6	161.6	136.5	117.0
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°	4724.9	4724.9	4724.9	4724.9	4724.9	4724.9	4724.9	4724.9	4724.9	4724.9	4724.9
2.5°	4749.9	4738.8	4736.0	4754.1	4734.6	4758.3	4751.3	4804.3	4811.2	4791.7	4823.8
5°	4756.9	4751.3	4755.5	4789.0	4782.0	4830.8	4843.3	4896.2	4896.2	4880.9	4914.4
7.5°	4789.0	4789.0	4801.5	4862.8	4862.8	4904.6	4918.5	4977.1	4975.7	4975.7	5006.3
10°	4869.8	4869.8	4896.2	4974.3	4954.8	5009.1	5016.1	5046.7	5039.8	5041.2	5073.2
12.5°	4989.6	4996.6	5042.5	5110.8	5098.3	5117.8	5103.9	5098.3	5048.1	5048.1	5069.0
15°	5127.5	5156.8	5219.5	5282.2	5240.4	5233.4	5154.0	5084.3	4977.1	4931.1	4954.8
17.5°	5307.3	5357.4	5429.9	5474.5	5395.1	5337.9	5194.4	5013.3	4839.1	4737.4	4740.2
20°	5506.5	5573.4	5662.6	5677.9	5560.9	5418.8	5179.1	4894.9	4595.3	4433.7	4422.5
22.5°	5728.1	5811.7	5914.8	5854.9	5664.0	5432.7	5089.9	4712.3	4309.6	4037.9	4033.8
25°	5998.4	6089.0	6154.4	5987.2	5687.7	5361.6	4935.3	4428.1	3930.6	3638.0	3618.5
27.5°	6342.5	6402.5	6353.7	6055.5	5616.6	5191.6	4673.3	4063.0	3536.3	3271.6	3242.3
30°	6750.8	6743.8	6479.1	6036.0	5473.1	4922.7	4316.6	3667.3	3213.1	2986.0	2959.5
32.5°	7246.8	7146.5	6600.3	5942.7	5241.8	4570.2	3893.0	3338.5	2979.0	2749.1	2721.2
35°	8038.3	7755.4	6757.8	5801.9	4919.9	4145.2	3493.1	3084.9	2797.9	2534.5	2480.2
37.5°	9265.8	8669.4	7019.7	5654.2	4550.7	3728.6	3195.0	2901.0	2655.7	2357.6	2293.5
40°	10528.2	9731.2	7418.2	5495.4	4205.1	3413.7	3026.4	2814.6	2569.3	2282.3	2218.2
42.5°	11624.7	10721.9	7896.1	5296.1	3851.2	3165.7	2940.0	2786.7	2541.5	2268.4	2207.1
45°	12593.1	11612.2	8395.0	5064.8	3480.6	2965.1	2866.1	2747.7	2499.7	2236.3	2180.6
47.5°	13399.9	12321.4	8833.9	4808.5	3116.9	2817.4	2793.7	2655.7	2420.3	2166.7	2119.3
50°	14024.1	12825.8	9127.9	4522.8	2806.2	2701.7	2689.2	2515.0	2286.5	2044.0	1996.7
52.5°	14467.2	13164.4	9299.2	4415.5	2562.4	2568.0	2547.0	2361.7	2140.2	1899.1	1861.5
55°	14748.6	13397.1	9257.4	4277.6	2315.8	2379.8	2382.6	2248.9	2053.8	1819.7	1789.1
57.5°	14855.9	13387.3	9010.8	3586.5	2076.1	2154.1	2191.7	2170.8	1998.1	1769.6	1744.5
60°	14797.4	13229.9	8485.5	2627.9	1828.1	1934.0	2025.9	2021.8	1875.5	1659.5	1633.0
62.5°	14699.9	12864.8	7455.8	1881.0	1641.4	1777.9	1889.4	1851.8	1712.4	1522.9	1504.8
65°	14350.1	12221.1	5764.3	1504.8	1563.3	1690.1	1782.1	1718.0	1581.5	1383.6	1373.8
67.5°	13576.8	10933.6	3364.9	1372.5	1506.2	1616.3	1681.8	1602.4	1475.6	1283.3	1266.6
68°	13314.9	10603.4	2861.9	1359.9	1495.1	1598.2	1658.1	1574.5	1450.5	1263.8	1247.1
70°	11992.6	8594.2	1365.5	1308.4	1446.3	1514.6	1549.4	1472.8	1351.6	1185.7	1174.6
72.5°	9334.1	5184.7	912.6	1230.3	1351.6	1417.0	1425.4	1305.6	1191.3	1068.7	1061.7
75°	5514.9	1720.8	848.6	1114.7	1220.6	1311.1	1334.8	1215.0	1088.2	946.1	943.3
77.5°	1343.2	667.4	801.2	994.9	1106.3	1194.1	1212.2	1124.4	1013.0	852.7	847.2
80°	553.2	554.6	746.8	824.9	948.9	1033.9	1060.3	982.3	882.0	778.9	767.7
82.5°	459.8	468.2	634.0	608.9	759.4	858.3	884.8	830.4	795.6	684.1	673.0
85°	327.4	415.2	420.8	409.6	532.3	611.7	745.4	719.0	681.3	586.6	530.9
87.5°	153.3	242.4	182.5	175.6	270.3	362.3	426.4	447.3	387.4	301.0	278.7
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)