

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: P237544

Luminaire Tested: **CTN-10-3-D-E1-T3-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237544
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-10-3-D-E1-T3-7050-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 5000K LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29574 lumens
Efficiency: N/A
Efficacy: 139.5 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G4

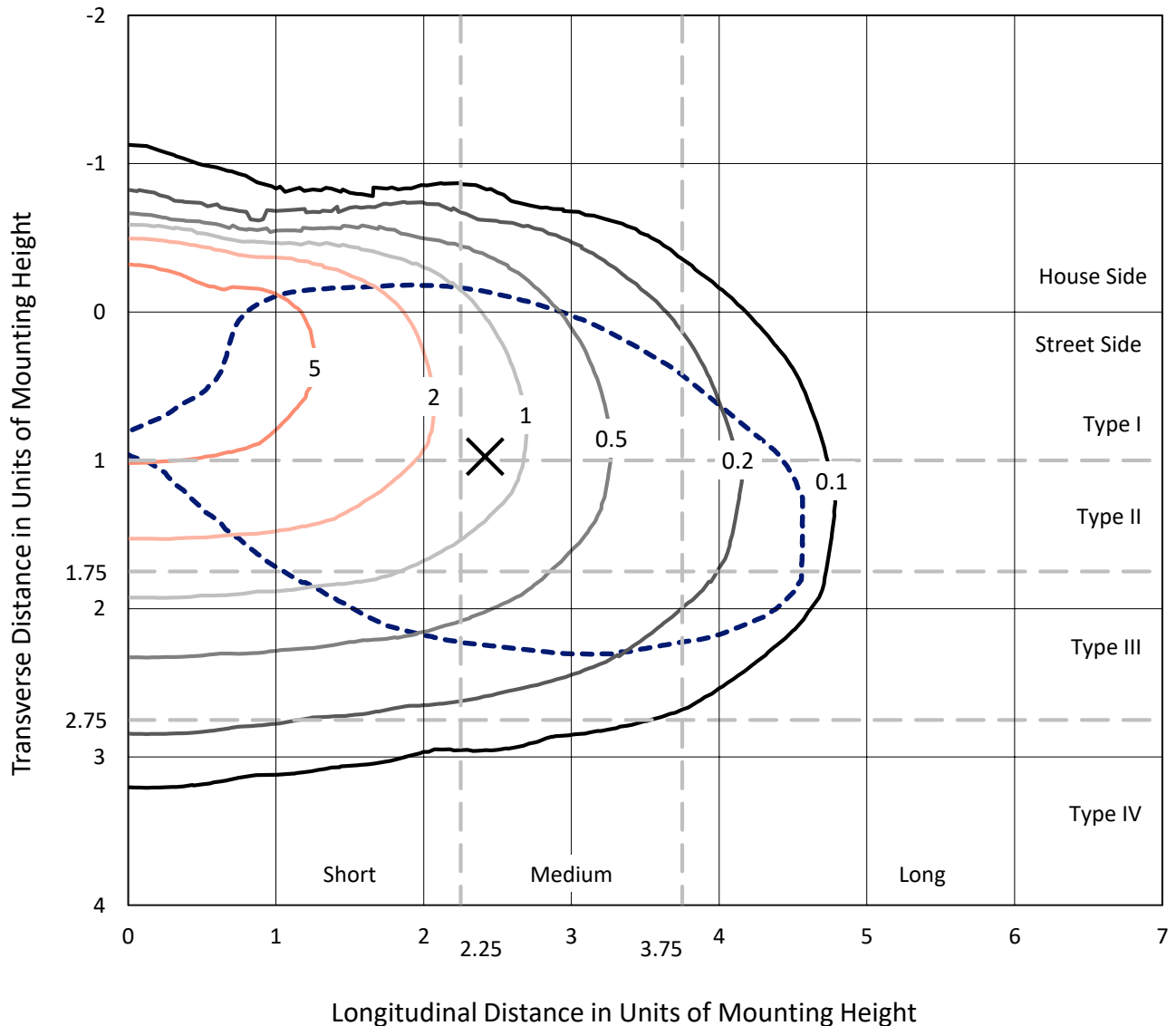
Input Watts (W): 212
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

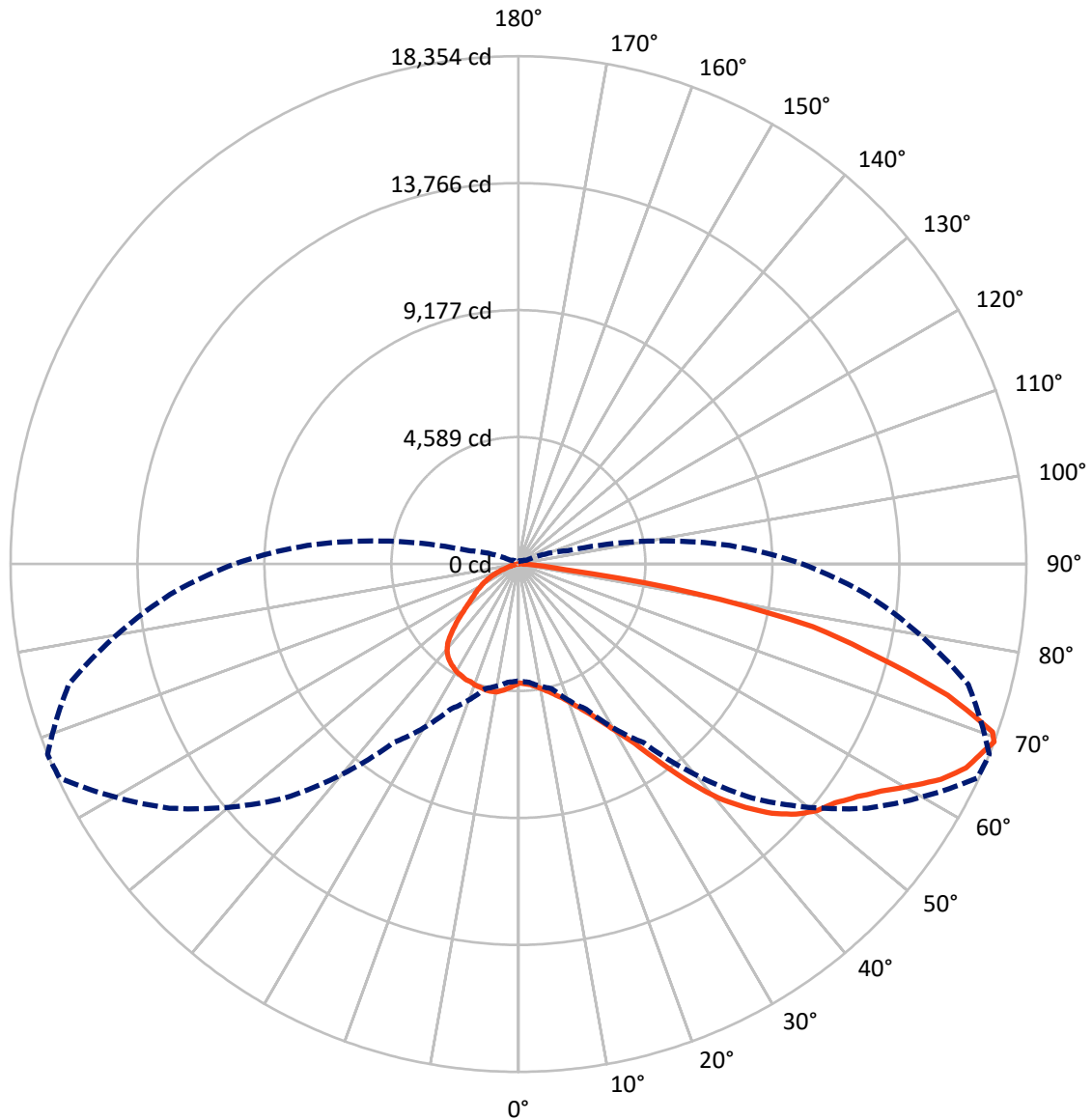
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.4 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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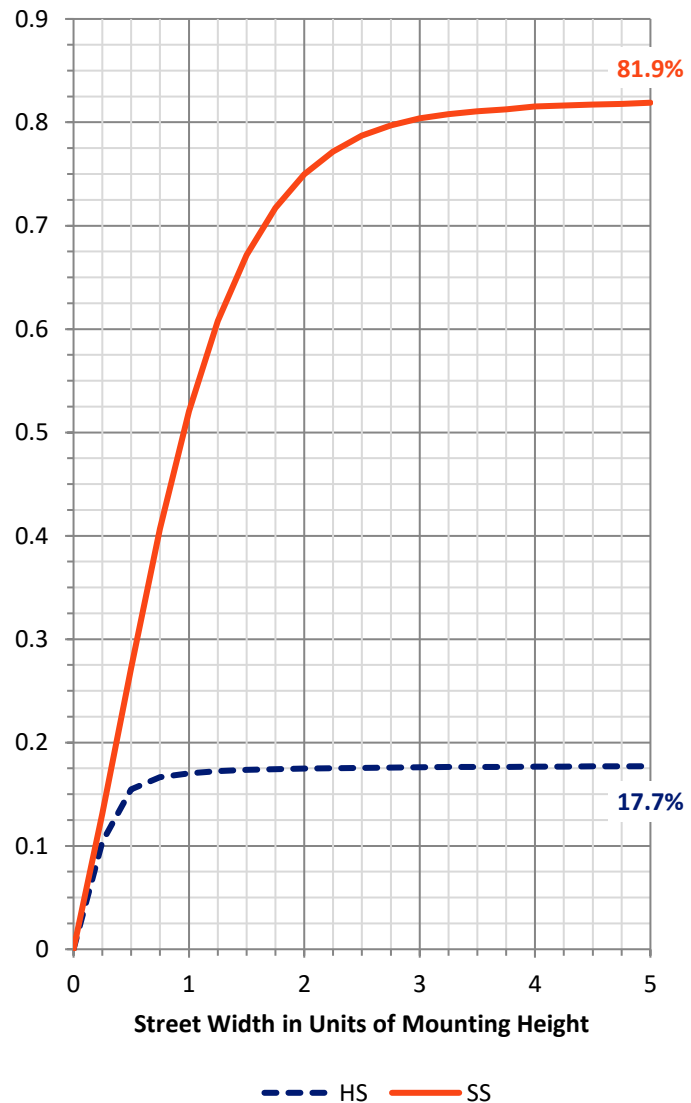
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5307.5	0.0	5307.5
	% Fixture	17.9	0.0	17.9
Street Side	Lumens	24266.5	0.0	24266.5
	% Fixture	82.1	0.0	82.1
Total	Lumens	29574.0	0.0	29574.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	432.0	1.5
10°-20°	1355.6	4.6
20°-30°	2317.3	7.8
30°-40°	3570.7	12.1
40°-50°	5124.2	17.3
50°-60°	6167.1	20.9
60°-70°	6471.9	21.9
70°-80°	3749.4	12.7
80°-90°	385.8	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°	29574.0	100.0
0°-180°	29574.0	100.0



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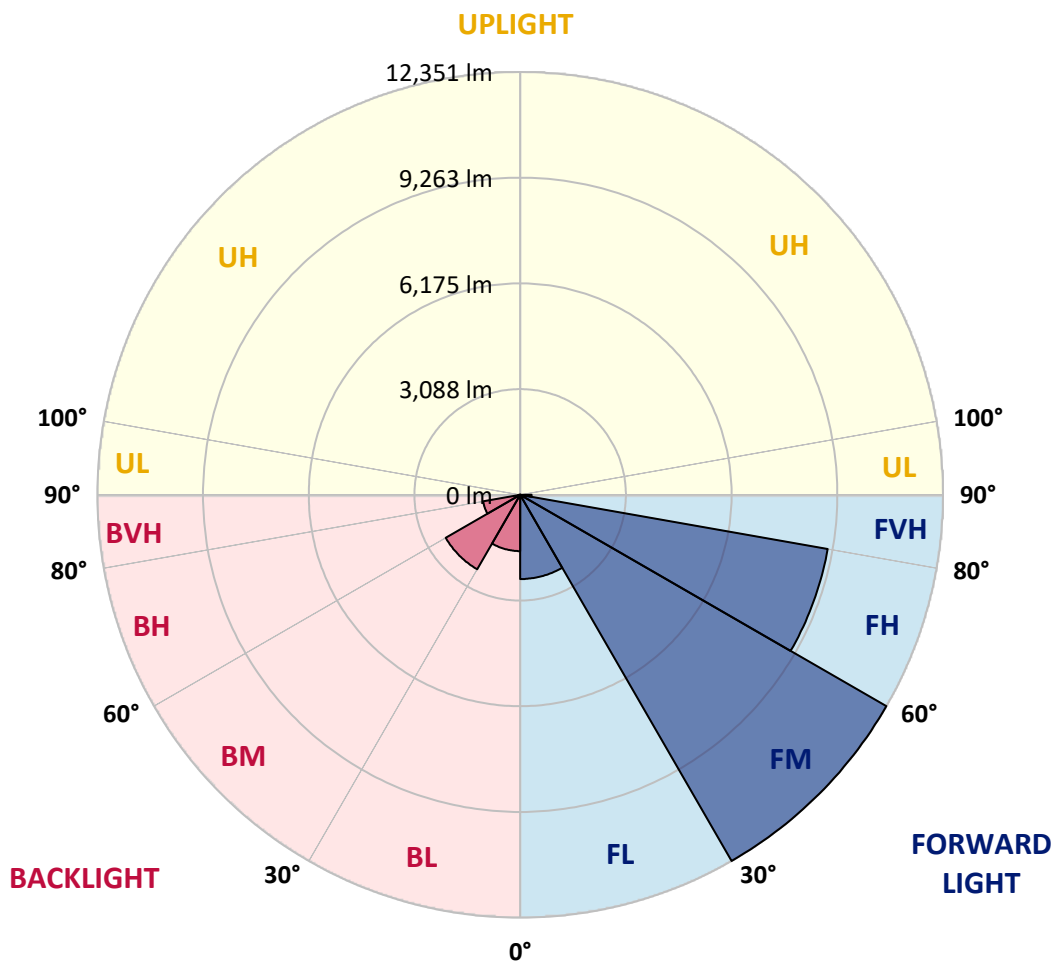
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2460.4	8.3			
FM	(30°-60°)	12350.5	41.8			
FH	(60°-80°)	9120.3	30.8			G4/12000
FVH	(80°-90°)	335.3	1.1			G3/500
BL	(0°-30°)	1644.5	5.6	B3/2500		
BM	(30°-60°)	2511.5	8.5	B3/5000		
BH	(60°-80°)	1100.9	3.7	B3/2500		G3/2500
BVH	(80°-90°)	50.5	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°	4301.7	4301.7	4301.7	4301.7	4301.7	4301.7	4301.7	4301.7	4301.7	4301.7	4301.7
2.5°	4349.9	4315.0	4319.1	4346.8	4264.8	4299.6	4278.1	4323.2	4330.4	4308.9	4328.3
5°	4435.9	4406.2	4405.2	4432.9	4341.7	4368.3	4334.5	4365.2	4374.4	4351.9	4385.7
7.5°	4603.0	4571.2	4565.0	4592.7	4476.9	4485.1	4439.0	4454.4	4462.6	4431.8	4465.6
10°	4842.7	4807.9	4785.4	4800.7	4670.6	4650.1	4571.2	4569.1	4581.4	4539.4	4593.7
12.5°	5111.2	5070.2	5037.4	5040.5	4891.9	4857.1	4752.6	4715.7	4723.9	4667.5	4733.1
15°	5403.2	5343.8	5313.1	5314.1	5147.1	5088.7	4954.4	4894.0	4888.8	4834.5	4872.4
17.5°	5754.7	5706.6	5667.6	5647.1	5469.8	5354.1	5194.2	5115.3	5086.6	5050.7	5031.3
20°	6167.7	6107.2	6066.2	6059.1	5841.8	5688.1	5476.0	5371.5	5337.7	5307.9	5220.8
22.5°	6627.8	6566.3	6509.9	6500.7	6270.1	6084.7	5799.8	5670.7	5641.0	5607.2	5433.0
25°	7052.0	7044.8	6982.3	6972.1	6749.7	6508.9	6174.8	6009.9	6009.9	5969.9	5702.5
27.5°	7525.4	7535.6	7479.3	7467.0	7258.0	6991.5	6593.9	6436.1	6468.9	6397.2	6041.6
30°	8024.4	8002.9	7987.5	8000.9	7807.2	7525.4	7111.4	6978.2	7029.4	6947.5	6496.6
32.5°	8471.2	8454.8	8465.0	8516.3	8376.9	8116.7	7761.1	7678.1	7727.3	7778.5	7312.3
35°	8824.7	8789.9	8919.0	9031.7	8991.7	8744.8	8458.9	8634.1	8769.4	9003.0	8514.2
37.5°	9136.2	9110.6	9267.4	9497.9	9548.2	9410.8	9322.7	9811.5	9966.2	10280.8	9568.7
40°	9292.0	9286.9	9479.5	9779.7	9983.7	10072.8	10227.5	10893.6	11119.0	11205.1	10371.0
42.5°	9241.8	9258.2	9598.4	10061.5	10391.5	10773.7	11085.2	11817.9	12024.9	11954.2	11073.9
45°	9101.4	9109.6	9454.9	10177.3	10745.0	11494.1	11910.1	12674.5	12857.9	12608.9	11633.4
47.5°	8906.7	8909.8	9274.6	10097.4	11034.0	12145.8	12621.2	13359.0	13507.6	13156.1	12036.1
50°	8643.3	8648.5	9084.0	9997.0	11283.0	12679.6	13177.6	13889.8	14004.6	13544.5	12384.5
52.5°	8310.3	8355.4	8831.9	9836.1	11438.7	13058.8	13598.8	14279.2	14335.6	14008.7	12693.0
55°	7926.1	7973.2	8511.2	9617.8	11499.2	13274.0	13893.9	14758.8	14848.9	14527.2	12944.0
57.5°	7471.1	7535.6	8102.3	9263.3	11357.8	13364.1	14194.1	15351.0	15473.0	15069.2	13202.2
60°	6943.4	7023.3	7619.7	8820.6	11030.9	13459.4	14755.7	16145.2	16286.6	15652.3	13427.7
62.5°	6392.1	6443.3	6982.3	8217.1	10507.3	13533.2	15360.3	17123.8	17136.1	16163.6	13552.7
65°	5654.3	5708.6	6191.2	7454.7	9721.3	13298.6	15665.6	17810.3	17773.4	16564.3	13510.7
67.5°	4809.9	4861.2	5255.7	6506.8	8642.3	12640.7	15561.1	18083.9	18108.5	16855.3	13108.0
69°	4223.8	4291.4	4663.4	5786.5	7879.9	11967.5	15385.9	18297.0	18354.4	16828.7	12641.7
70°	3722.7	3809.8	4163.4	5150.1	7234.4	11355.7	15047.7	18176.1	18180.2	16559.2	12212.4
72.5°	2431.6	2484.9	2546.4	3341.5	5204.5	8998.9	13316.0	16119.6	16226.1	14776.2	10677.4
75°	1203.0	1250.1	1479.7	1767.6	2676.5	6028.3	10557.5	13206.3	13408.2	12548.5	8747.9
77.5°	664.0	673.2	754.2	1157.9	1387.4	2725.7	7215.9	10527.8	10881.3	10226.5	6282.4
80°	414.0	411.9	430.4	539.0	777.7	1292.1	3047.5	5908.4	6543.7	5339.7	2482.8
82.5°	322.8	316.6	317.7	348.4	328.9	608.7	1268.6	1720.5	1735.8	1541.1	966.3
85°	165.0	186.5	221.3	231.6	194.7	331.0	584.1	679.4	695.8	609.7	503.1
87.5°	55.3	56.4	59.4	58.4	52.3	113.7	216.2	252.1	224.4	127.1	172.1
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°	4301.7	4301.7	4301.7	4301.7	4301.7	4301.7	4301.7	4301.7	4301.7	4301.7	4301.7
2.5°	4358.1	4348.8	4367.3	4409.3	4374.4	4406.2	4374.4	4481.0	4468.7	4461.5	4482.0
5°	4418.5	4417.5	4447.2	4514.8	4511.8	4568.1	4537.4	4642.9	4627.5	4625.5	4643.9
7.5°	4500.5	4520.0	4551.7	4621.4	4622.4	4668.5	4633.7	4716.7	4682.9	4674.7	4700.3
10°	4625.5	4630.6	4655.2	4703.4	4635.7	4656.2	4598.9	4664.4	4617.3	4612.2	4650.1
12.5°	4745.4	4752.6	4715.7	4700.3	4613.2	4586.6	4486.1	4521.0	4466.7	4461.5	4480.0
15°	4873.5	4825.3	4737.2	4687.0	4536.3	4440.0	4327.3	4258.7	4165.4	4122.4	4138.8
17.5°	5006.7	4913.4	4748.5	4626.5	4424.7	4284.3	4059.9	3943.0	3804.7	3734.0	3720.7
20°	5152.2	5021.0	4776.1	4595.8	4311.9	4035.3	3761.7	3494.2	3336.4	3263.7	3244.2
22.5°	5316.1	5156.3	4815.1	4493.3	4135.7	3799.6	3337.4	3000.3	2770.8	2700.1	2680.6
25°	5521.1	5307.9	4868.4	4467.7	3966.6	3414.3	2839.4	2457.2	2189.8	2082.2	2059.6
27.5°	5770.1	5517.0	4955.5	4345.8	3669.5	2985.0	2344.5	1904.9	1627.2	1500.2	1472.5
30°	6132.8	5784.4	5013.9	4274.0	3405.1	2539.2	1821.9	1331.1	1067.7	974.5	949.9
32.5°	6848.1	6243.5	5132.7	4109.0	3014.7	2020.7	1254.2	816.7	632.2	579.0	558.5
35°	7910.7	7108.3	5303.8	3913.3	2576.1	1437.7	745.0	473.4	380.2	360.7	354.5
37.5°	8879.0	7961.9	5634.8	3612.1	2000.2	884.3	431.4	303.3	279.7	282.8	282.8
40°	9609.6	8596.2	6021.1	3214.5	1356.7	496.0	296.1	252.1	257.2	258.2	257.2
42.5°	10294.1	9177.2	6207.6	2775.9	785.9	328.9	257.2	234.7	238.8	235.7	233.6
45°	10832.1	9593.2	6263.0	2185.7	430.4	294.1	241.8	218.3	216.2	218.3	220.3
47.5°	11181.5	9847.4	6136.9	1673.3	324.8	273.6	232.6	207.0	201.9	216.2	215.2
50°	11440.8	10021.6	5648.1	1272.7	316.6	256.2	221.3	193.7	195.7	213.1	211.1
52.5°	11629.3	10066.7	5112.2	1020.6	302.3	243.9	211.1	187.5	185.5	198.8	199.8
55°	11778.9	9945.7	4778.2	803.4	290.0	231.6	202.9	181.4	171.1	175.2	174.2
57.5°	11872.2	9807.4	4397.0	670.2	278.7	218.3	191.6	165.0	149.6	150.6	149.6
60°	11851.7	9715.2	3959.4	549.2	264.4	206.0	176.2	147.6	132.2	128.1	128.1
62.5°	11810.7	9525.6	3507.5	478.5	252.1	201.9	157.8	134.2	123.0	118.9	118.9
65°	11532.0	9073.7	2903.0	409.9	239.8	190.6	147.6	129.1	115.8	111.7	111.7
67.5°	10840.3	8326.7	2248.2	356.6	230.6	172.1	144.5	126.0	111.7	106.6	106.6
69°	10256.2	7662.7	1846.5	327.9	221.3	164.0	144.5	127.1	109.6	103.5	103.5
70°	9800.2	7141.1	1527.8	310.5	212.1	158.8	144.5	128.1	108.6	101.4	100.4
72.5°	8409.7	5575.4	848.5	263.3	176.2	144.5	141.4	129.1	103.5	93.2	92.2
75°	6452.5	3919.5	505.2	222.4	148.6	132.2	134.2	124.0	95.3	84.0	84.0
77.5°	4032.2	1800.4	376.1	174.2	120.9	114.8	116.8	109.6	86.1	76.9	76.9
80°	1377.2	812.6	283.8	134.2	87.1	89.1	96.3	92.2	76.9	69.7	68.7
82.5°	754.2	528.7	200.8	93.2	60.5	73.8	73.8	74.8	66.6	61.5	60.5
85°	409.9	275.6	124.0	56.4	43.0	54.3	52.3	56.4	54.3	50.2	49.2
87.5°	142.4	94.3	41.0	20.5	17.4	18.4	21.5	28.7	27.7	28.7	29.7
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)