

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: P299614

Luminaire Tested: **GLNA-AF-07-LED-E1-5MQ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299614
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-07-LED-E1-5MQ
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 44078.7 lumens
Efficiency: N/A
Efficacy: 112.7 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G4

Input Watts (W): 391
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

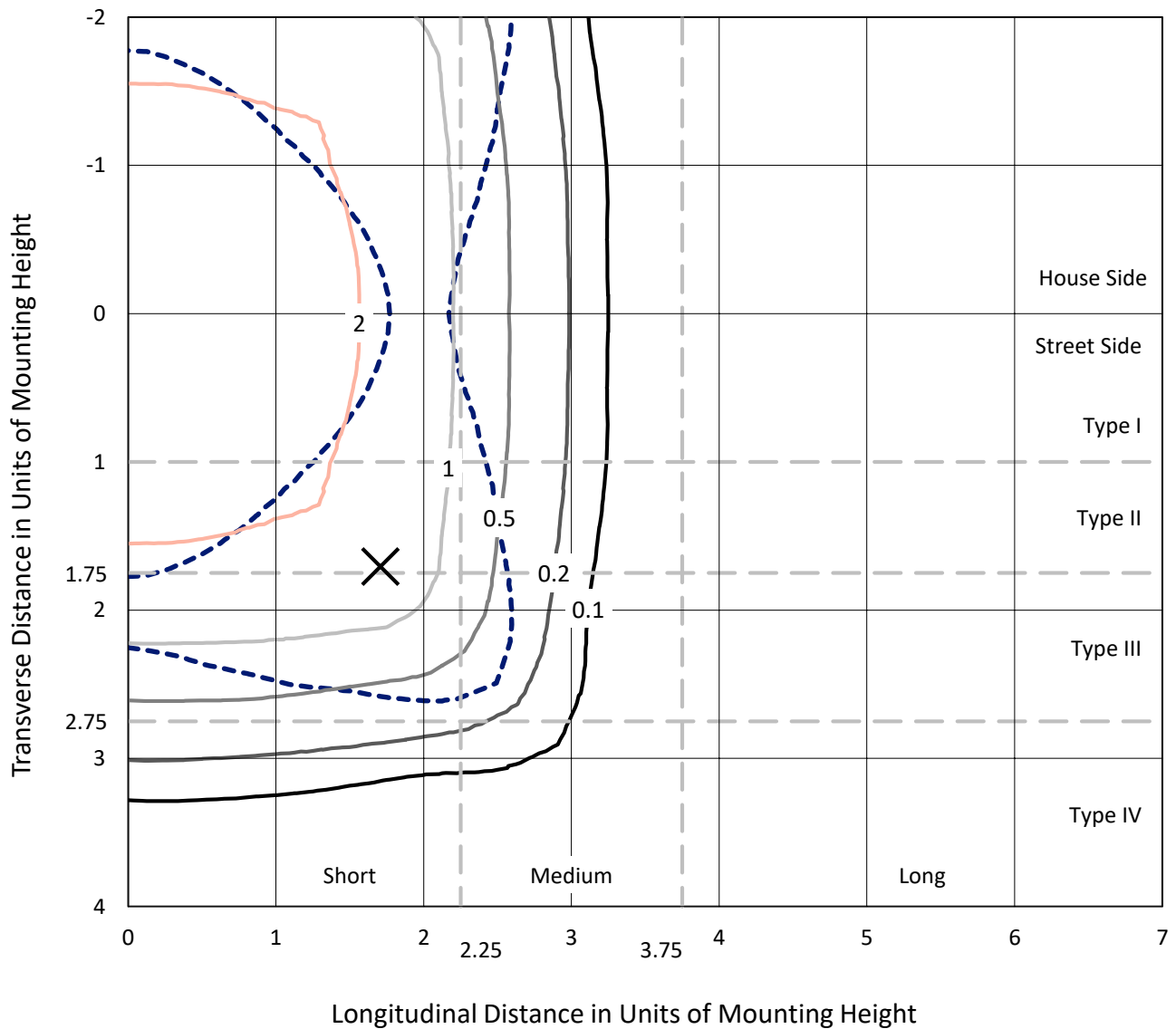


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

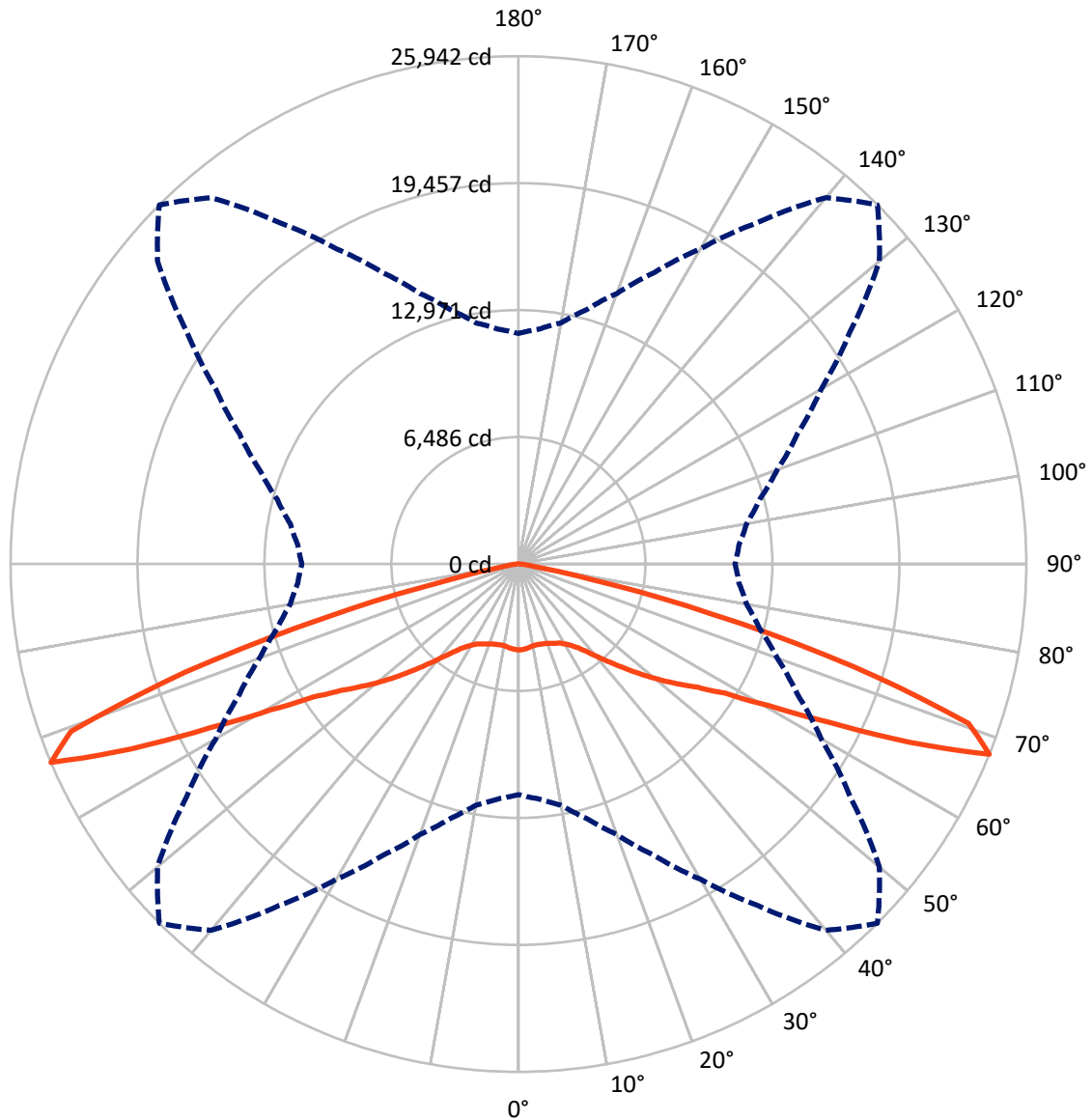


Based on 30 foot mounting height. Maximum calculated value = 4.9 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	22039.4	0.0	22039.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	22039.4	0.0	22039.4
	% Fixture	50.0	0.0	50.0
Total	Lumens	44078.7	0.0	44078.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	411.1	0.9
10°-20°	1193.0	2.7
20°-30°	2028.1	4.6
30°-40°	3315.3	7.5
40°-50°	5918.5	13.4
50°-60°	9978.7	22.6
60°-70°	15485.5	35.1
70°-80°	5440.9	12.3
80°-90°	307.5	0.7
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°	44078.7	100.0
0°-180°	44078.7	100.0



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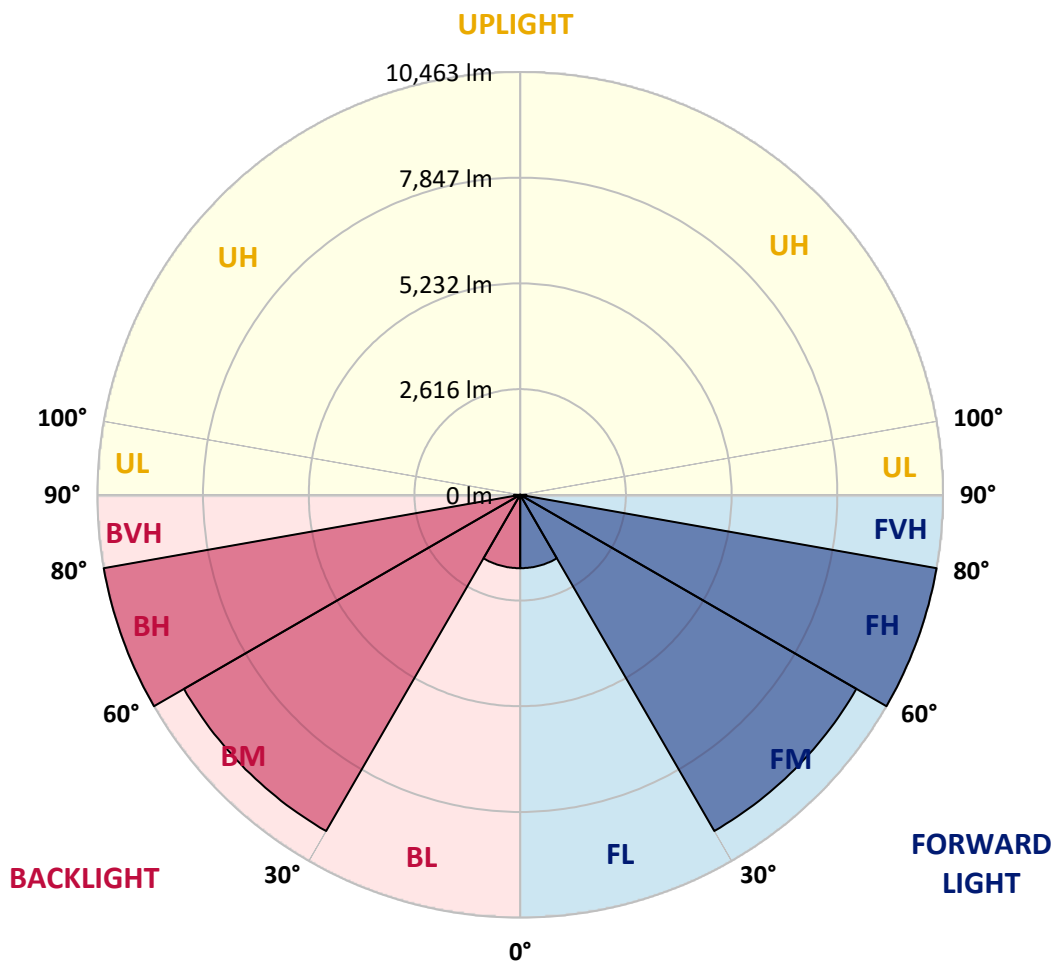
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1816.1	4.1			
FM	(30°-60°)	9606.3	21.8			
FH	(60°-80°)	10463.2	23.7			G4/12000
FVH	(80°-90°)	153.7	0.3			G2/225
BL	(0°-30°)	1816.1	4.1	B3/2500		
BM	(30°-60°)	9606.3	21.8	B5		
BH	(60°-80°)	10463.2	23.7	B5		G4/12000
BVH	(80°-90°)	153.7	0.3			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G4

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4392.6	4392.6	4392.6	4392.6	4392.6	4392.6	4392.6	4392.6	4392.6	4392.6	4392.6
2.5°	4376.4	4380.5	4380.5	4380.5	4378.4	4378.4	4374.4	4378.4	4376.4	4370.3	4372.4
5°	4339.9	4344.0	4344.0	4342.0	4348.0	4346.0	4339.9	4344.0	4342.0	4337.9	4339.9
7.5°	4287.2	4293.3	4293.3	4291.3	4297.4	4295.3	4291.3	4293.3	4293.3	4287.2	4287.2
10°	4228.4	4232.5	4232.5	4230.5	4240.6	4240.6	4238.6	4244.7	4246.7	4240.6	4236.5
12.5°	4173.7	4179.8	4179.8	4187.9	4198.0	4202.1	4212.2	4220.3	4228.4	4226.4	4218.3
15°	4141.3	4145.3	4153.4	4163.6	4179.8	4194.0	4210.2	4228.4	4244.7	4248.7	4236.5
17.5°	4121.0	4127.1	4139.3	4153.4	4175.7	4200.1	4224.4	4248.7	4271.0	4279.1	4264.9
20°	4114.9	4119.0	4131.1	4155.5	4185.9	4222.4	4256.8	4285.2	4315.6	4325.7	4315.6
22.5°	4127.1	4135.2	4149.4	4177.8	4218.3	4264.9	4305.5	4344.0	4382.5	4400.7	4386.6
25°	4181.8	4189.9	4208.2	4244.7	4289.3	4337.9	4384.5	4429.1	4463.6	4481.8	4471.7
27.5°	4283.2	4293.3	4315.6	4352.1	4400.7	4453.4	4504.1	4540.6	4569.0	4575.1	4562.9
30°	4435.2	4457.5	4483.8	4524.4	4581.1	4625.7	4676.4	4708.9	4743.3	4743.3	4733.2
32.5°	4672.4	4694.7	4723.0	4761.6	4806.2	4854.8	4899.4	4927.8	4964.3	4966.3	4942.0
35°	5027.1	5037.2	5061.6	5085.9	5126.4	5169.0	5207.5	5225.8	5256.2	5258.2	5235.9
37.5°	5495.4	5497.4	5513.6	5521.7	5558.2	5604.8	5641.3	5653.5	5681.8	5677.8	5655.5
40°	6040.6	6050.8	6056.8	6069.0	6107.5	6152.1	6190.6	6196.7	6227.1	6221.0	6192.7
42.5°	6671.0	6675.1	6709.6	6727.8	6764.3	6786.6	6835.2	6841.3	6877.8	6861.6	6829.2
45°	7378.5	7415.0	7447.4	7483.9	7522.4	7548.8	7587.3	7579.2	7603.5	7579.2	7560.9
47.5°	8122.4	8148.8	8221.7	8278.5	8341.3	8363.6	8418.4	8394.0	8418.4	8383.9	8377.8
50°	8941.3	8988.0	9050.8	9115.7	9182.6	9219.1	9290.0	9259.6	9292.0	9259.6	9241.4
52.5°	9748.1	9760.3	9898.1	9993.4	10086.6	10129.2	10171.8	10157.6	10159.6	10157.6	10139.3
55°	10514.3	10542.7	10680.6	10810.3	10972.5	11092.1	11165.0	11156.9	11138.7	11120.4	11090.0
57.5°	11377.9	11406.2	11564.4	11724.5	11909.0	12079.2	12227.2	12379.2	12438.0	12454.2	12387.3
60°	12545.5	12543.4	12754.2	12948.8	13212.4	13465.7	13790.1	14120.5	14499.5	14675.9	14442.8
62.5°	13733.3	13782.0	14086.0	14430.6	14973.9	15502.9	16100.9	16688.8	17288.8	17777.3	17258.4
65°	13591.4	13777.9	14229.9	15010.4	16013.7	17205.7	18494.9	19859.1	21091.5	21938.8	20988.1
67.5°	11779.2	12044.8	12504.9	13453.6	14708.3	16427.3	18592.2	21290.2	24426.0	25942.3	24063.2
70°	8538.0	8838.0	9320.4	10246.8	11489.4	13123.2	15474.6	18713.8	22865.2	24393.6	22324.0
72.5°	4248.7	4410.9	4708.9	5298.7	6239.3	7565.0	9697.4	12811.0	16484.0	17886.7	15995.5
75°	1443.3	1518.3	1568.9	1761.5	2059.5	2580.4	3640.6	5600.8	8544.0	10242.7	8422.4
77.5°	833.1	835.1	869.6	904.1	954.7	1011.5	1153.4	1514.2	2619.0	3719.6	2710.2
80°	539.2	537.2	565.5	591.9	626.4	654.7	662.8	701.4	808.8	958.8	857.4
82.5°	279.7	314.2	377.0	411.5	476.4	488.5	472.3	458.1	484.5	502.7	514.9
85°	154.1	133.8	200.7	259.5	287.8	291.9	291.9	275.7	285.8	279.7	304.1
87.5°	70.9	64.9	79.1	127.7	135.8	115.5	121.6	107.4	77.0	75.0	85.1
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	4392.6	4392.6	4392.6	4392.6	4392.6	4392.6	4392.6	4392.6
2.5°	4372.4	4374.4	4374.4	4380.5	4382.5	4386.6	4390.6	4392.6
5°	4337.9	4344.0	4339.9	4346.0	4346.0	4350.1	4350.1	4352.1
7.5°	4287.2	4293.3	4293.3	4293.3	4291.3	4297.4	4297.4	4297.4
10°	4234.5	4238.6	4236.5	4232.5	4228.4	4234.5	4232.5	4230.5
12.5°	4218.3	4208.2	4200.1	4196.0	4187.9	4189.9	4183.8	4183.8
15°	4228.4	4210.2	4196.0	4189.9	4181.8	4177.8	4173.7	4175.7
17.5°	4254.8	4232.5	4214.3	4204.1	4194.0	4187.9	4179.8	4181.8
20°	4301.4	4275.1	4248.7	4228.4	4210.2	4200.1	4194.0	4192.0
22.5°	4370.3	4331.8	4293.3	4262.9	4238.6	4224.4	4218.3	4214.3
25°	4449.4	4406.8	4362.2	4327.8	4303.4	4285.2	4273.0	4273.0
27.5°	4548.7	4514.3	4473.7	4433.2	4410.9	4392.6	4384.5	4380.5
30°	4714.9	4682.5	4650.1	4611.6	4583.2	4564.9	4550.7	4538.6
32.5°	4927.8	4901.4	4875.1	4846.7	4820.3	4796.0	4773.7	4763.6
35°	5227.8	5207.5	5189.3	5156.8	5146.7	5132.5	5120.3	5110.2
37.5°	5641.3	5633.2	5633.2	5598.7	5590.6	5584.5	5572.4	5574.4
40°	6184.6	6192.7	6182.5	6170.4	6164.3	6148.1	6148.1	6162.3
42.5°	6827.1	6833.2	6855.5	6835.2	6857.5	6837.3	6825.1	6835.2
45°	7573.1	7595.4	7640.0	7619.7	7633.9	7599.4	7556.9	7558.9
47.5°	8410.3	8430.5	8448.8	8434.6	8436.6	8379.9	8323.1	8308.9
50°	9279.9	9288.0	9298.1	9277.8	9281.9	9219.1	9154.2	9156.2
52.5°	10139.3	10177.9	10218.4	10163.7	10151.5	10080.6	9989.3	9952.8
55°	11122.5	11177.2	11130.6	11035.3	10940.0	10844.8	10725.2	10704.9
57.5°	12334.6	12241.4	12095.4	11915.0	11783.3	11649.5	11527.9	11477.2
60°	14021.2	13670.5	13407.0	13139.4	12971.1	12806.9	12646.8	12622.5
62.5°	16405.0	15798.9	15273.9	14720.5	14268.5	13915.7	13634.0	13554.9
65°	19392.9	17959.7	16717.1	15557.7	14550.2	13790.1	13311.7	13100.9
67.5°	20678.0	17848.2	15717.8	14071.8	12754.2	11834.0	11317.1	11059.6
70°	18170.5	14801.6	12484.6	10836.6	9636.6	8655.5	8187.3	7911.6
72.5°	12500.9	9415.7	7445.4	6077.1	5118.3	4297.4	3973.0	3948.7
75°	5612.9	3717.6	2562.2	1974.4	1662.2	1445.3	1378.4	1327.7
77.5°	1571.0	1161.5	1035.8	968.9	904.1	829.1	800.7	806.8
80°	764.2	721.6	693.3	650.7	591.9	529.1	500.7	512.8
82.5°	506.8	500.7	518.9	488.5	403.4	342.6	287.8	263.5
85°	308.1	312.2	318.2	320.3	271.6	190.5	129.7	145.9
87.5°	121.6	139.9	152.0	158.1	148.0	91.2	73.0	75.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)