

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: P299896

Luminaire Tested: **GLNA-AF-04-LED-E1-SL3-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299896
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24288)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-04-LED-E1-SL3-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Medium OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19332.8 lumens
Efficiency: N/A
Efficacy: 113.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B2 - U0 - G3

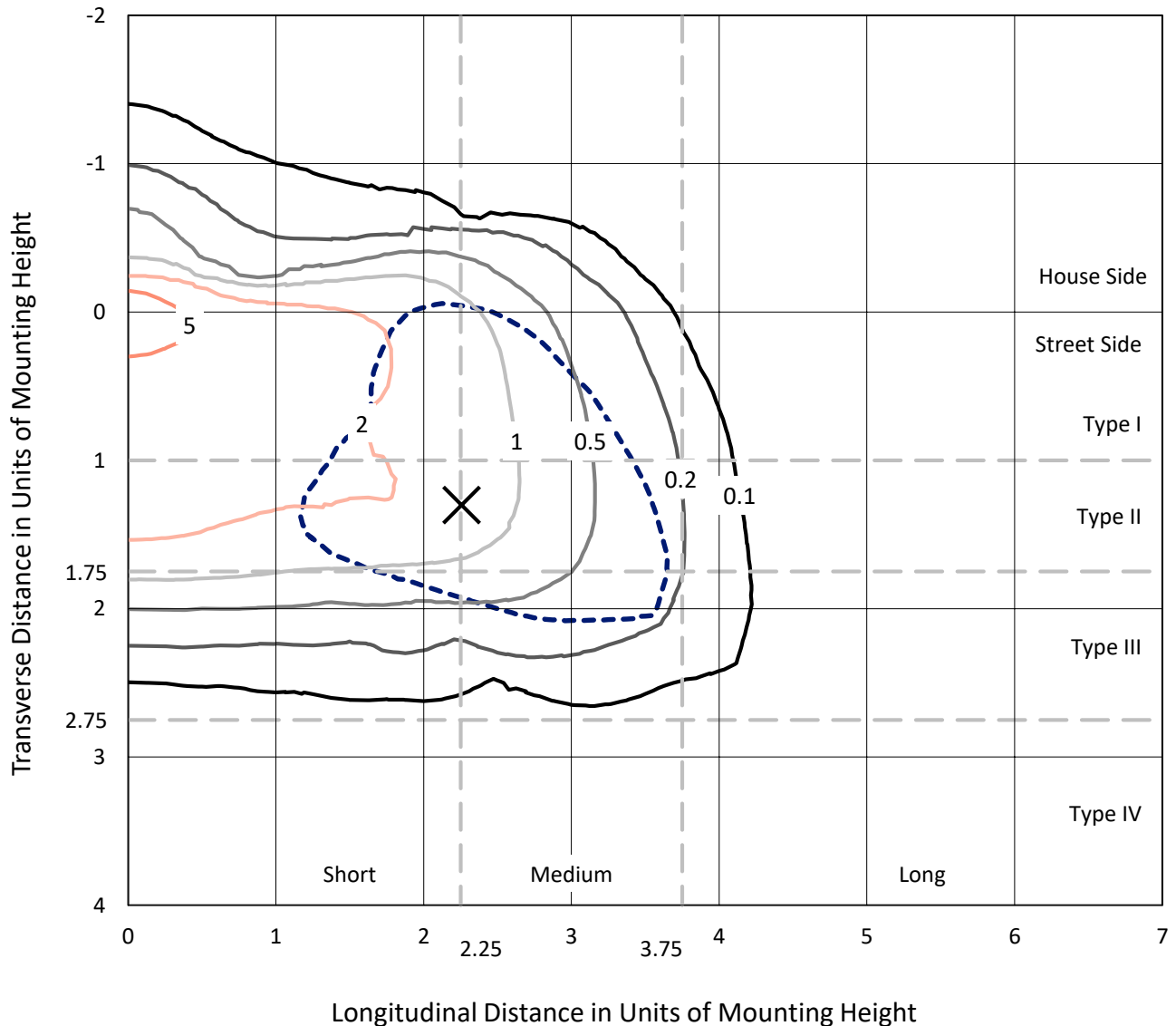
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

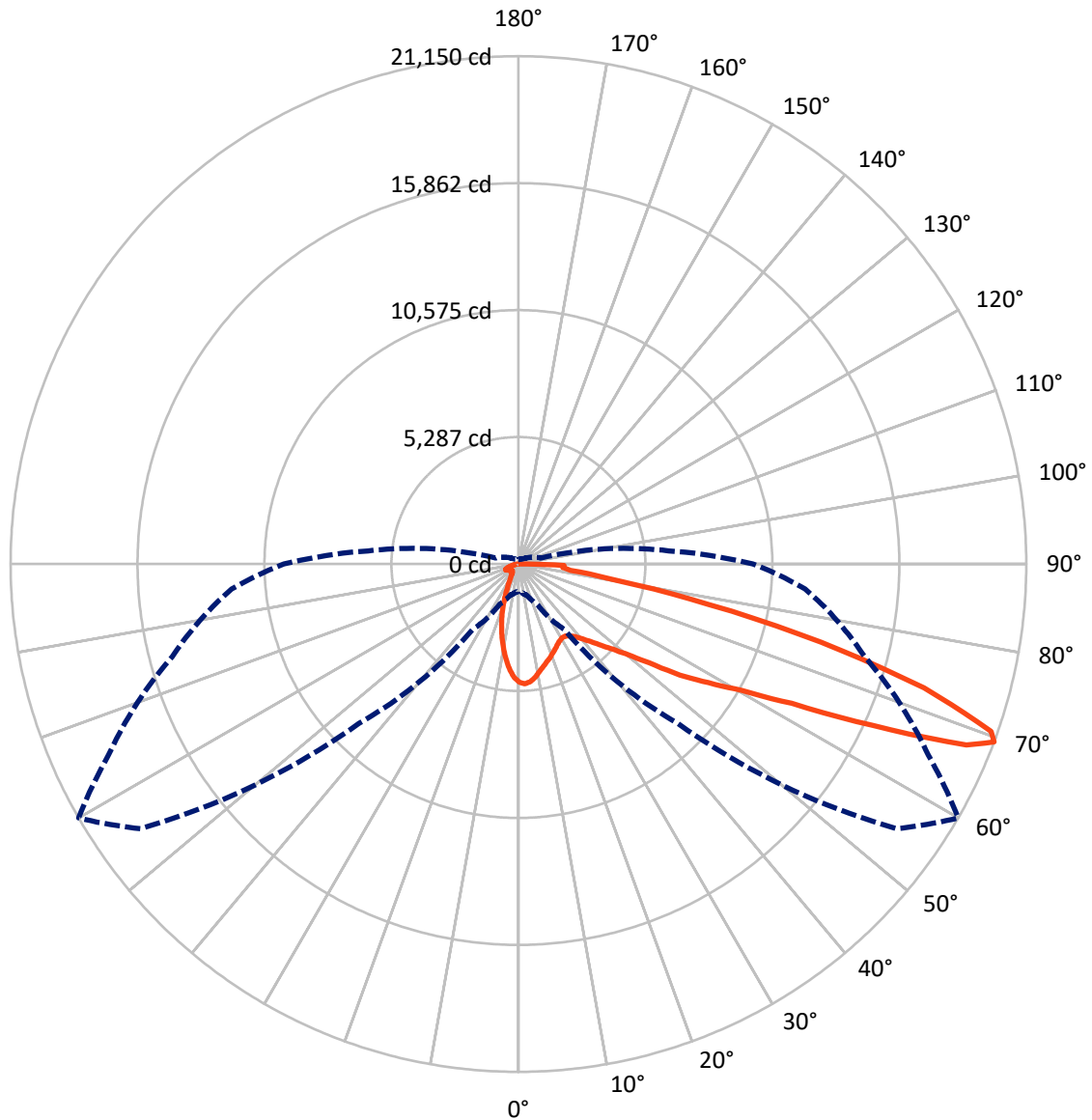
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.9 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2750.4	0.0	2750.4
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	16582.3	0.0	16582.3
	% Fixture	85.8	0.0	85.8
Total	Lumens	19332.8	0.0	19332.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	416.5	2.2
10°-20°	887.5	4.6
20°-30°	1130.8	5.8
30°-40°	1554.5	8.0
40°-50°	2522.4	13.0
50°-60°	4045.2	20.9
60°-70°	5383.9	27.8
70°-80°	2906.9	15.0
80°-90°	485.0	2.5
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°	19332.8	100.0
0°-180°	19332.8	100.0

Coefficient of Utilization



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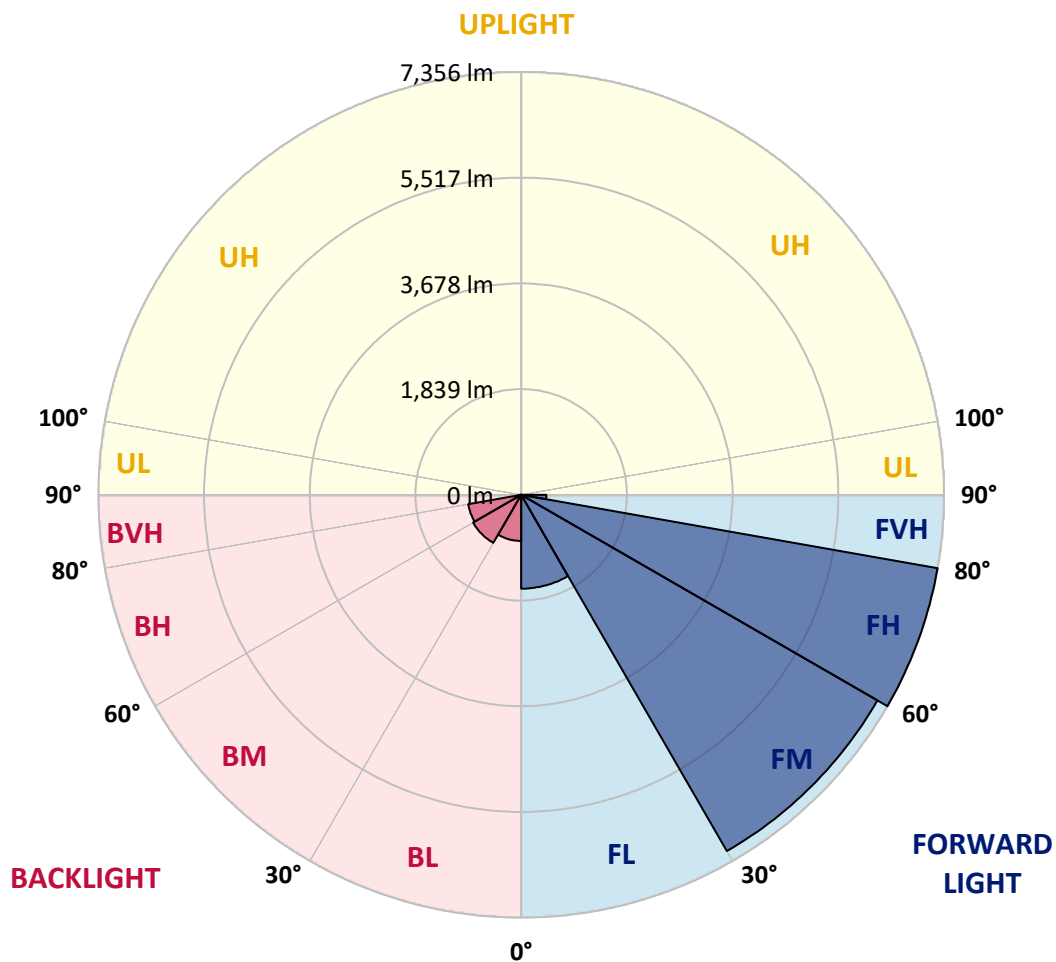
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1632.4	8.4			
FM	(30°-60°)	7155.9	37.0			
FH	(60°-80°)	7355.7	38.0			G3/7500
FVH	(80°-90°)	438.3	2.3			G3/500
BL	(0°-30°)	802.4	4.2	B2/1000		
BM	(30°-60°)	966.3	5.0	B1/1000		
BH	(60°-80°)	935.1	4.8	B2/1000		G2/1000
BVH	(80°-90°)	46.7	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	4926.3	4926.3	4926.3	4926.3	4926.3	4926.3	4926.3	4926.3	4926.3	4926.3	4926.3
2.5°	5027.1	5038.3	5033.7	5030.9	5039.3	5026.2	4999.1	4990.7	4977.6	4946.8	4894.5
5°	4838.5	4872.1	4870.2	4895.5	4937.5	4948.7	4936.6	4938.4	4914.1	4875.9	4789.0
7.5°	4512.6	4526.6	4534.0	4589.1	4665.7	4727.4	4779.7	4796.5	4785.3	4752.6	4640.5
10°	4176.4	4187.6	4205.3	4269.8	4366.9	4451.9	4550.9	4607.8	4632.1	4626.5	4501.4
12.5°	3887.8	3899.0	3922.3	3995.2	4111.0	4215.6	4359.4	4430.4	4488.3	4522.8	4388.4
15°	3629.1	3653.4	3675.8	3759.9	3889.7	4026.9	4189.4	4279.1	4368.7	4446.3	4288.4
17.5°	3427.4	3451.7	3464.7	3541.3	3679.5	3847.6	4038.2	4143.7	4255.7	4382.8	4189.4
20°	3310.6	3321.9	3316.3	3359.2	3483.4	3661.8	3887.8	4010.1	4145.5	4323.0	4090.4
22.5°	3278.0	3278.9	3258.4	3253.7	3334.0	3484.4	3727.2	3875.7	4041.9	4283.8	4005.5
25°	3357.3	3354.5	3298.5	3252.7	3261.2	3348.9	3572.1	3744.9	3955.0	4275.4	3940.1
27.5°	3533.8	3542.3	3459.1	3373.2	3288.2	3285.4	3454.5	3636.6	3884.1	4313.6	3912.1
30°	3781.3	3795.3	3706.6	3597.4	3437.7	3306.0	3408.7	3572.1	3840.2	4393.0	3907.4
32.5°	4052.2	4067.1	3999.9	3885.0	3675.8	3433.0	3440.5	3577.7	3838.3	4504.2	3939.2
35°	4340.7	4357.5	4323.0	4225.9	3993.3	3667.4	3561.9	3668.3	3899.0	4674.1	4024.1
37.5°	4662.9	4689.1	4698.4	4606.0	4357.5	3976.5	3760.8	3840.2	4036.3	4910.4	4180.1
40°	5127.1	5163.5	5160.7	5028.1	4775.0	4394.0	4068.0	4088.6	4250.1	5226.1	4429.5
42.5°	6016.1	6023.6	5791.1	5502.5	5234.5	4832.9	4430.4	4413.6	4545.3	5625.8	4796.5
45°	7147.1	7116.3	6598.9	6041.3	5714.5	5337.2	4902.0	4819.8	4919.7	6113.3	5255.9
47.5°	8085.6	8014.7	7360.9	6591.4	6222.5	5885.4	5455.8	5312.0	5367.1	6666.1	5849.9
50°	8411.6	8358.3	7816.7	7049.0	6703.5	6554.1	6137.5	5934.0	5948.9	7325.5	6545.7
52.5°	8341.5	8334.1	7972.6	7350.7	7153.6	7256.3	7103.2	6827.7	6682.0	8057.6	7296.5
55°	8176.2	8192.1	8061.4	7701.8	7668.2	7934.3	8364.9	8161.3	7708.3	8796.3	8072.6
57.5°	7601.9	7643.0	7930.6	8143.5	8496.6	8892.5	9380.9	9323.0	8813.1	9594.8	8995.3
60°	6124.5	6219.7	6991.1	8057.6	9349.2	10587.5	10806.1	10671.6	9952.5	10585.7	10214.0
62.5°	4291.2	4390.2	5307.3	6976.2	9209.1	12502.0	13353.7	12773.8	11588.7	12045.3	11791.3
65°	2297.4	2345.0	3045.4	4840.4	7774.7	12897.1	17077.2	16194.6	14179.3	13845.0	13140.8
67.5°	1267.3	1293.4	1561.5	2444.0	4979.5	11357.1	19449.2	20116.0	17417.1	15043.1	12895.2
69°	1145.9	1170.2	1345.7	1851.0	3332.1	9390.3	19217.6	21149.9	18836.6	14924.5	11987.4
70°	1120.7	1143.1	1300.9	1706.2	2697.1	7740.1	18441.6	20885.6	19174.7	14499.6	11195.5
72.5°	1008.6	1032.9	1186.0	1532.5	2304.8	3858.8	14607.9	17659.0	17408.7	12572.1	8491.9
75°	940.4	962.8	1222.5	1500.8	2206.8	2442.1	9630.3	13014.7	12797.1	8794.5	4578.9
77.5°	402.5	400.6	566.9	1270.1	2239.5	2364.6	5174.7	8130.5	7417.9	3758.9	1314.9
80°	269.0	264.3	269.0	373.6	2053.6	2377.7	2711.1	4126.9	3117.3	958.2	648.1
82.5°	231.6	227.9	236.3	227.9	721.9	2713.9	2304.8	2194.6	1482.1	544.5	321.3
85°	156.0	149.4	203.6	204.5	340.9	2411.3	2596.2	1853.8	1199.1	323.1	158.8
87.5°	74.7	72.8	118.6	144.8	199.9	979.7	2912.8	1899.5	1209.4	165.3	75.6
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°	4926.3	4926.3	4926.3	4926.3	4926.3	4926.3	4926.3	4926.3	4926.3	4926.3	4926.3
2.5°	4878.7	4840.4	4803.0	4758.2	4711.5	4659.2	4633.0	4606.9	4600.4	4592.9	4566.7
5°	4744.2	4690.0	4596.6	4493.9	4385.6	4280.0	4199.7	4149.3	4111.0	4091.4	4056.8
7.5°	4570.5	4491.1	4327.7	4150.2	3968.1	3801.9	3658.1	3567.5	3481.6	3441.4	3395.6
10°	4405.2	4286.6	4032.5	3771.1	3509.6	3258.4	3022.1	2854.9	2706.4	2623.3	2564.5
12.5°	4263.2	4100.7	3748.6	3394.7	3036.1	2678.4	2324.5	2046.2	1813.6	1691.3	1628.7
15°	4125.0	3928.9	3478.7	3029.5	2569.1	2082.6	1617.5	1301.8	1109.5	1032.9	1006.7
17.5°	3999.9	3748.6	3207.9	2661.6	2087.2	1498.9	1087.1	913.3	839.6	814.4	805.9
20°	3864.4	3566.5	2926.8	2276.8	1584.8	1047.8	848.9	772.3	742.4	735.0	731.2
22.5°	3733.7	3387.2	2657.9	1865.0	1138.4	808.8	729.4	697.6	692.9	699.5	699.5
25°	3622.6	3226.6	2367.4	1434.5	835.8	680.8	652.8	645.3	663.1	687.3	692.0
27.5°	3539.5	3094.9	2058.3	1059.0	665.9	592.1	591.2	603.3	647.2	693.9	703.2
30°	3482.5	2969.8	1727.7	763.9	558.5	521.1	536.1	562.2	626.6	692.9	710.7
32.5°	3453.5	2877.3	1383.1	591.2	478.2	457.6	482.8	514.6	578.1	639.7	663.1
35°	3475.9	2809.1	1058.1	493.1	422.1	406.2	432.4	463.2	500.6	526.7	544.5
37.5°	3560.0	2782.1	798.5	441.7	383.8	368.9	389.4	407.2	422.1	429.6	438.0
40°	3741.2	2811.0	639.7	415.6	362.4	343.7	352.1	358.6	368.0	375.4	379.2
42.5°	4008.3	2897.9	573.4	405.3	351.1	324.1	322.2	325.0	337.1	351.1	353.9
45°	4381.8	3051.0	568.7	411.8	345.5	308.2	299.8	303.5	322.2	343.7	347.4
47.5°	4859.0	3284.5	606.1	431.5	350.2	299.8	285.8	290.4	313.8	342.7	347.4
50°	5437.1	3610.4	668.7	460.4	370.8	301.6	281.1	283.9	308.2	339.9	344.6
52.5°	6119.8	4072.7	736.8	488.4	392.2	313.8	284.8	278.3	300.7	328.7	334.3
55°	6879.1	4665.7	806.9	513.6	403.4	328.7	292.3	270.8	286.7	310.1	314.7
57.5°	7811.1	5495.0	928.3	537.9	410.9	339.0	299.8	263.4	269.0	285.8	289.5
60°	9072.8	6668.0	1142.2	578.1	427.7	342.7	298.8	256.8	251.2	260.6	262.4
62.5°	10584.7	7941.8	1320.5	628.5	455.7	345.5	293.2	252.2	236.3	236.3	238.1
65°	11482.2	8282.7	1221.5	670.5	479.1	342.7	286.7	247.5	225.1	214.8	215.7
67.5°	10721.1	7284.4	1046.9	678.9	478.2	329.7	276.4	239.1	213.9	198.0	197.1
69°	9767.6	6285.1	968.4	656.5	455.7	312.9	263.4	229.7	205.5	188.6	187.7
70°	8999.0	5675.3	917.1	632.2	431.5	300.7	253.1	221.3	198.9	183.0	181.2
72.5°	6542.8	3718.8	783.5	543.5	355.8	252.2	218.5	194.2	177.4	168.1	166.2
75°	3269.6	1773.5	636.0	440.8	272.7	201.7	179.3	162.5	154.1	152.2	151.3
77.5°	1074.0	812.5	454.8	328.7	202.7	157.8	144.8	132.6	130.7	136.3	134.5
80°	590.2	472.5	288.6	217.6	138.2	115.8	113.9	107.4	110.2	119.5	117.7
82.5°	300.7	245.6	178.4	130.7	93.4	83.1	90.6	86.9	90.6	99.0	98.1
85°	148.5	134.5	113.0	79.4	61.6	53.2	64.4	67.2	69.1	75.6	75.6
87.5°	85.9	79.4	59.8	37.4	30.8	28.0	37.4	36.4	43.0	46.7	45.8
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)