

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: P300376

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300376
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24165)
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-AFL-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19833.1 lumens
Efficiency: N/A
Efficacy: 116.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

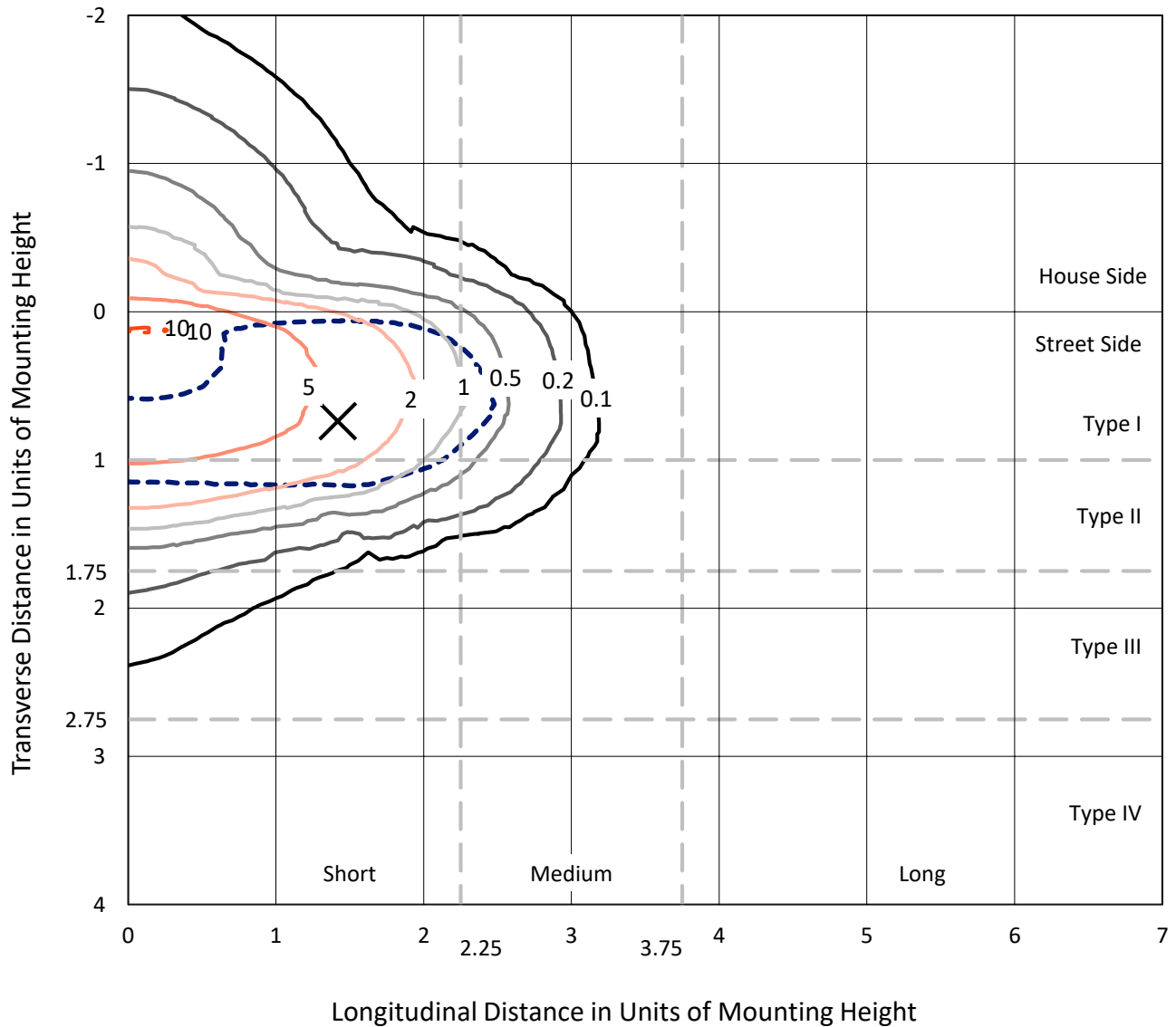
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

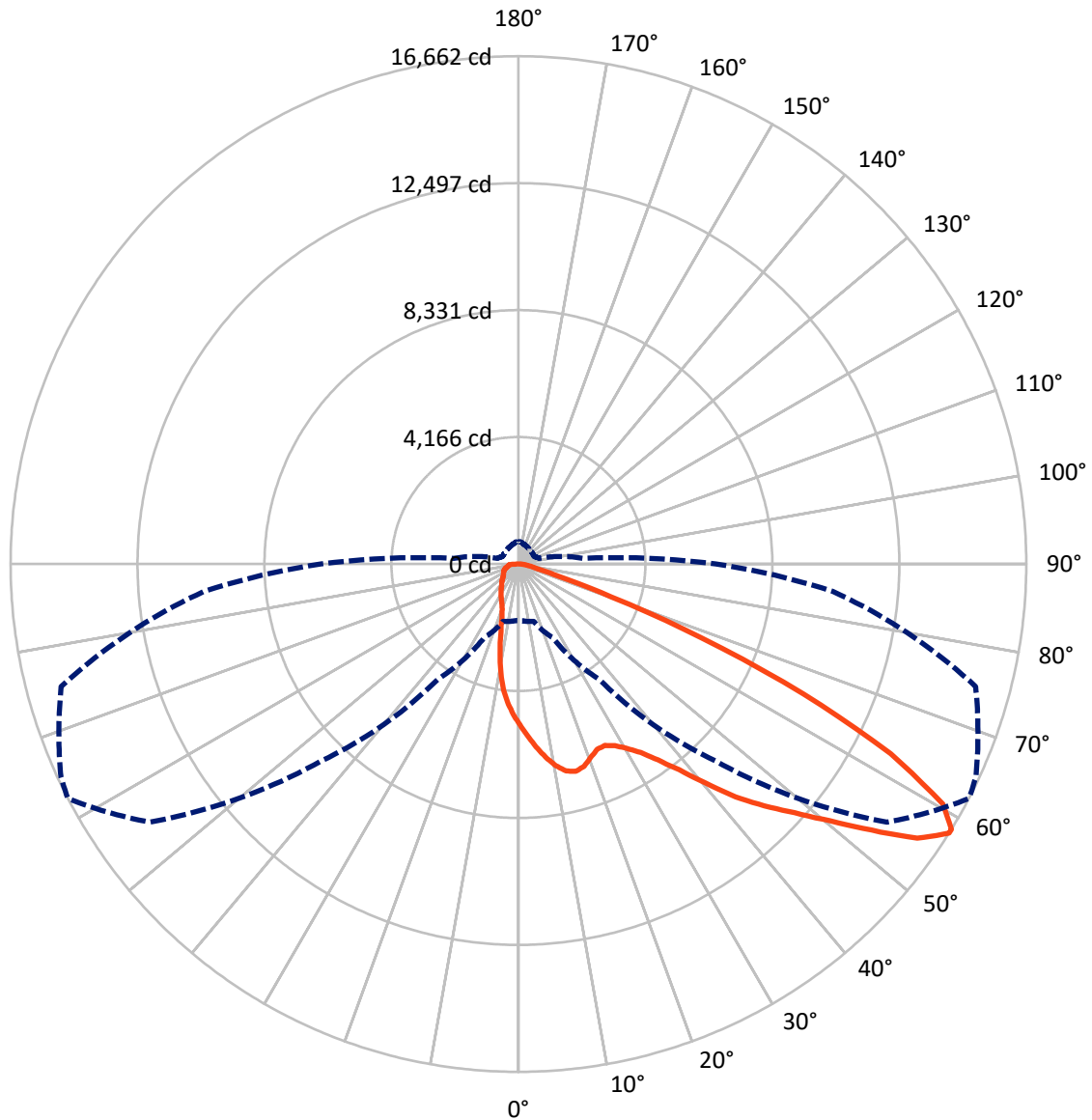
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.3 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral - - - Horizontal Cone Through 58-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3024.6	0.0	3024.6
	% Fixture	15.3	0.0	15.3
Street Side	Lumens	16808.5	0.0	16808.5
	% Fixture	84.7	0.0	84.7
Total	Lumens	19833.1	0.0	19833.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	471.2	2.4
10°-20°	1204.4	6.1
20°-30°	1946.9	9.8
30°-40°	3090.7	15.6
40°-50°	4522.4	22.8
50°-60°	4730.0	23.8
60°-70°	2794.5	14.1
70°-80°	787.2	4.0
80°-90°	285.8	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°	19833.1	100.0
0°-180°	19833.1	100.0

Coefficient of Utilization



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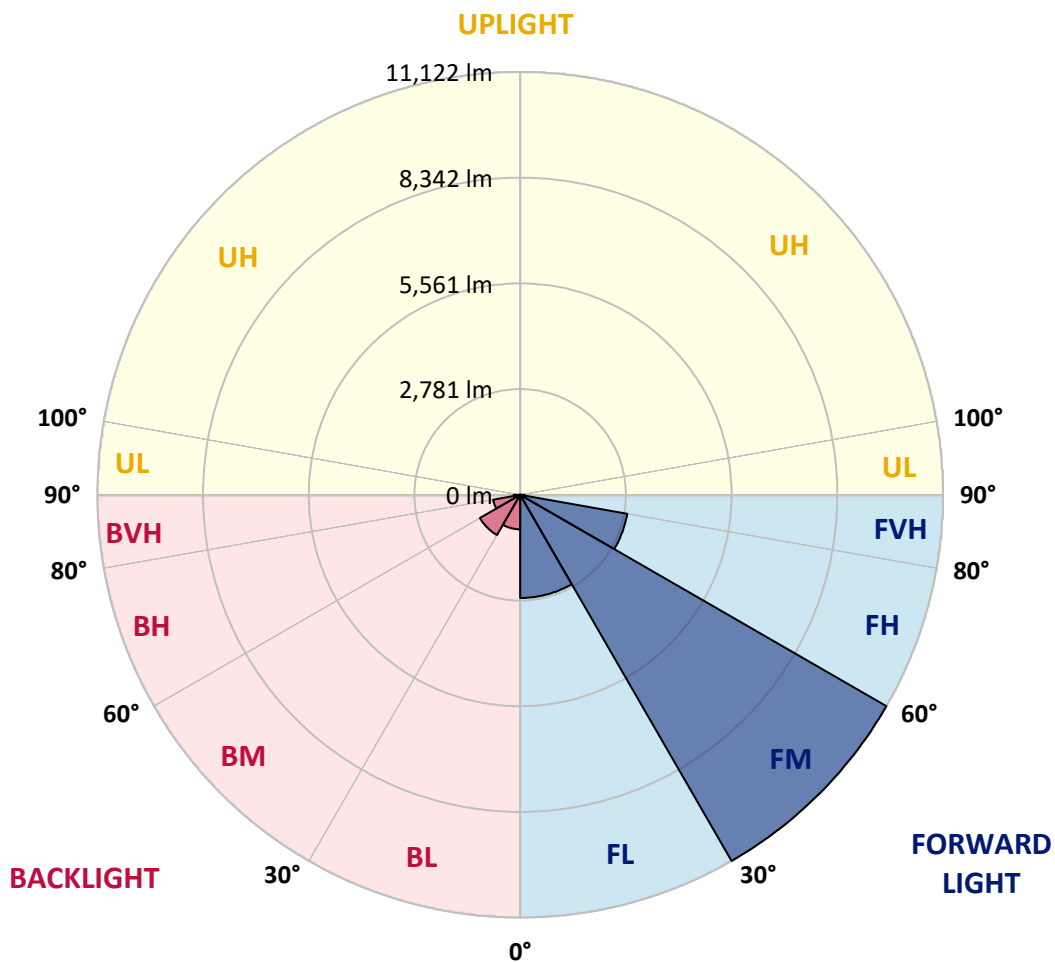
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2713.4	13.7			
FM (30°-60°)	11122.3	56.1			
FH (60°-80°)	2860.0	14.4			G2/5000
FVH (80°-90°)	112.7	0.6			G2/225
BL (0°-30°)	909.1	4.6	B2/1000		
BM (30°-60°)	1220.8	6.2	B2/2500		
BH (60°-80°)	721.7	3.6	B2/1000		G2/1000
BVH (80°-90°)	173.1	0.9			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	5268.3	5268.3	5268.3	5268.3	5268.3	5268.3	5268.3	5268.3	5268.3	5268.3	5268.3
2.5°	6020.1	5971.5	5940.7	5913.6	5878.1	5802.5	5700.7	5636.2	5603.5	5492.4	5360.7
5°	6610.3	6567.3	6535.6	6499.2	6435.7	6317.0	6152.7	6021.9	5957.5	5735.2	5471.8
7.5°	6472.1	6489.8	6544.9	6641.1	6723.3	6707.4	6560.8	6394.6	6309.6	6000.4	5600.7
10°	5639.0	5669.8	5765.1	5990.2	6354.4	6728.0	6841.9	6727.0	6641.1	6262.9	5733.3
12.5°	5471.8	5470.9	5478.4	5538.2	5754.8	6280.6	6851.3	6967.1	6915.7	6513.2	5868.8
15°	5540.0	5541.9	5536.3	5561.5	5628.7	5837.0	6565.5	7059.5	7095.9	6765.3	6008.9
17.5°	5719.3	5714.7	5693.2	5693.2	5717.5	5798.7	6229.3	6973.6	7141.7	6988.5	6132.1
20°	6020.1	5998.6	5941.6	5889.3	5863.2	5907.1	6091.0	6775.6	7062.3	7183.7	6233.9
22.5°	6384.3	6367.5	6275.0	6163.0	6072.4	6071.4	6162.0	6602.8	6925.0	7367.7	6319.9
25°	6855.0	6827.9	6690.6	6511.3	6352.5	6291.8	6317.0	6594.4	6850.3	7567.6	6396.4
27.5°	7407.9	7358.4	7195.9	6937.2	6703.7	6581.3	6544.9	6746.7	6918.5	7815.1	6502.9
30°	8078.4	8021.5	7813.2	7476.0	7146.4	6945.6	6868.1	7016.6	7144.5	8116.7	6673.8
32.5°	8841.4	8759.3	8518.3	8146.6	7713.3	7406.9	7280.9	7373.3	7475.1	8480.0	6887.7
35°	9895.8	9797.8	9449.4	8936.7	8447.3	8026.1	7824.4	7891.6	7990.6	9021.7	7196.8
37.5°	10615.0	10571.1	10339.5	9857.5	9325.2	8840.5	8528.6	8567.8	8623.8	9698.8	7592.8
40°	10608.4	10626.2	10630.8	10635.5	10273.1	9809.0	9473.7	9432.6	9421.4	10442.2	8042.9
42.5°	10077.0	10149.9	10385.2	10862.4	11082.9	10869.9	10562.7	10444.1	10385.2	11318.2	8520.2
45°	9263.6	9302.8	9743.6	10675.7	11497.5	11920.6	11688.0	11314.5	11208.0	12123.2	8916.2
47.5°	8844.2	8887.2	9164.6	10180.7	11492.8	12769.5	12904.0	12192.4	12001.8	12823.7	9258.0
50°	7845.9	7935.5	8284.8	9319.6	11073.5	13159.9	14175.1	13238.3	12844.2	13505.4	9600.7
52.5°	6012.6	6150.8	6542.1	7903.8	10009.8	12966.6	15192.1	14506.6	13950.0	14211.5	9894.9
55°	3792.7	3895.4	4224.1	5582.1	8007.4	11960.7	15577.8	15878.5	15383.6	14880.2	10149.9
57.5°	2062.1	2107.9	2231.1	3081.9	5208.5	9737.1	15015.6	16659.3	16453.8	15448.0	10342.3
58°	1845.4	1876.2	1952.8	2671.0	4619.2	9129.1	14766.2	16662.1	16559.4	15531.1	10357.2
60°	1369.1	1353.3	1285.1	1524.2	2571.1	6306.8	13258.9	15995.3	16296.9	15632.9	10284.3
62.5°	1202.9	1164.6	1025.4	1009.6	1250.5	2905.4	10145.2	13701.6	14414.2	15052.0	9841.7
65°	1130.0	1089.0	909.6	851.7	902.2	1229.0	5976.2	10275.9	11169.7	13290.6	8709.8
67.5°	1075.9	1022.6	835.9	756.5	760.2	812.5	2395.5	6472.1	7477.9	10091.0	6774.7
70°	1023.6	965.7	773.3	681.8	660.3	642.5	952.6	3239.8	4152.2	6374.0	4319.4
72.5°	967.5	910.6	718.2	622.9	580.9	522.1	622.0	1325.2	1851.0	3015.6	1959.4
75°	886.3	834.9	663.1	570.6	510.9	432.4	469.8	692.0	830.3	1201.0	944.2
77.5°	786.4	744.3	601.4	527.7	453.0	351.2	361.4	480.0	532.3	687.4	561.3
80°	565.0	580.0	535.1	474.4	403.5	284.8	277.4	350.2	378.2	441.7	365.2
82.5°	396.9	405.3	442.7	387.6	333.4	224.1	204.5	246.6	263.4	290.4	197.1
85°	273.6	264.3	303.5	269.9	241.0	149.4	140.1	167.2	177.4	180.2	101.8
87.5°	164.4	164.4	175.6	144.8	129.8	77.5	75.6	95.3	101.8	97.1	56.0
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°	5268.3	5268.3	5268.3	5268.3	5268.3	5268.3	5268.3	5268.3	5268.3	5268.3	5268.3
2.5°	5282.3	5216.0	5074.9	4961.9	4819.0	4670.5	4587.4	4498.7	4438.0	4394.1	4464.1
5°	5322.4	5187.0	4895.6	4619.2	4313.8	3996.3	3755.3	3531.2	3375.2	3278.1	3369.6
7.5°	5385.9	5177.7	4713.5	4240.9	3692.7	3164.1	2691.6	2395.5	2222.7	2137.7	2191.0
10°	5458.8	5162.7	4499.6	3728.2	2943.7	2277.8	1924.8	1805.3	1766.0	1750.2	1757.6
12.5°	5519.5	5131.0	4237.2	3108.1	2210.6	1798.7	1696.9	1694.1	1702.5	1704.4	1707.2
15°	5562.4	5084.3	3847.8	2461.8	1767.9	1639.0	1633.4	1650.2	1666.1	1672.7	1676.4
17.5°	5591.4	4988.1	3407.9	1946.3	1583.9	1561.5	1574.6	1596.1	1612.9	1617.6	1621.3
20°	5588.6	4847.1	2884.0	1623.2	1484.0	1484.0	1506.4	1523.2	1524.2	1518.6	1521.4
22.5°	5559.6	4653.7	2375.9	1451.3	1395.3	1411.2	1433.6	1417.7	1352.3	1309.4	1312.2
25°	5511.1	4423.1	1940.7	1342.0	1313.1	1341.1	1334.6	1215.0	1121.6	1079.6	1079.6
27.5°	5468.1	4150.3	1606.3	1246.8	1230.9	1265.5	1149.7	1041.3	1002.1	982.5	975.9
30°	5437.3	3856.2	1383.1	1155.3	1153.4	1128.2	997.4	967.5	961.0	945.1	939.5
32.5°	5444.8	3558.2	1240.2	1074.9	1081.5	965.7	924.6	931.1	925.5	908.7	901.2
35°	5506.4	3275.3	1146.9	1002.1	982.5	872.3	881.6	893.8	891.9	868.5	861.1
37.5°	5616.6	3007.2	1085.2	941.4	857.3	825.6	840.5	859.2	854.5	838.7	833.1
40°	5732.4	2755.1	1034.8	893.8	783.6	793.8	806.9	817.2	821.9	826.5	822.8
42.5°	5845.4	2491.7	973.1	845.2	752.7	763.9	769.6	779.8	805.0	822.8	821.9
45°	5912.7	2244.2	909.6	776.1	728.5	735.0	731.3	751.8	782.6	811.6	812.5
47.5°	5987.4	2051.8	859.2	712.6	705.1	709.8	698.6	719.1	747.1	782.6	786.4
50°	6078.0	1937.0	819.0	662.2	673.4	673.4	670.6	689.2	728.5	769.6	777.0
52.5°	6180.7	1914.5	785.4	625.7	641.6	640.7	643.5	671.5	714.5	754.6	761.1
55°	6305.8	1975.2	749.0	598.6	610.8	614.5	623.9	655.6	692.0	737.8	740.6
57.5°	6451.5	2098.5	720.1	577.2	582.8	594.9	609.9	638.8	678.0	728.5	731.3
58°	6475.8	2124.7	715.4	575.3	577.2	591.2	608.0	636.0	675.2	730.3	733.1
60°	6476.7	2211.5	705.1	566.9	555.7	579.0	597.7	625.7	670.6	736.9	743.4
62.5°	6247.0	2210.6	697.6	554.7	533.3	562.2	583.7	616.4	665.9	752.7	765.8
65°	5500.8	2008.9	662.2	536.1	515.5	547.3	571.6	609.9	679.0	821.9	830.3
67.5°	4302.6	1646.5	595.8	509.9	492.2	532.3	564.1	608.9	693.0	837.7	843.3
70°	2844.7	1231.8	523.0	480.0	467.9	514.6	567.8	640.7	677.1	804.1	789.2
72.5°	1476.5	864.8	464.2	442.7	439.9	498.7	622.0	636.9	661.2	756.5	737.8
75°	775.2	600.5	412.8	401.6	406.3	495.0	734.1	620.1	640.7	723.8	759.3
77.5°	474.4	484.7	368.9	364.2	373.6	483.8	733.1	598.6	610.8	665.9	705.1
80°	317.5	393.2	335.3	336.2	342.7	442.7	658.4	565.0	574.4	629.5	669.6
82.5°	200.8	232.5	304.5	320.3	311.9	365.2	559.4	514.6	527.7	720.1	761.1
85°	101.8	145.7	264.3	308.2	281.1	255.9	453.9	451.1	457.6	519.3	542.6
87.5°	46.7	80.3	206.4	269.0	212.0	159.7	329.7	334.3	360.5	368.9	368.9
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)