

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: P453007

Luminaire Tested: **GALN-SA4A-730-U-AFL**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453007
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4A-730-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16637 lumens
Efficiency: N/A
Efficacy: 137.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

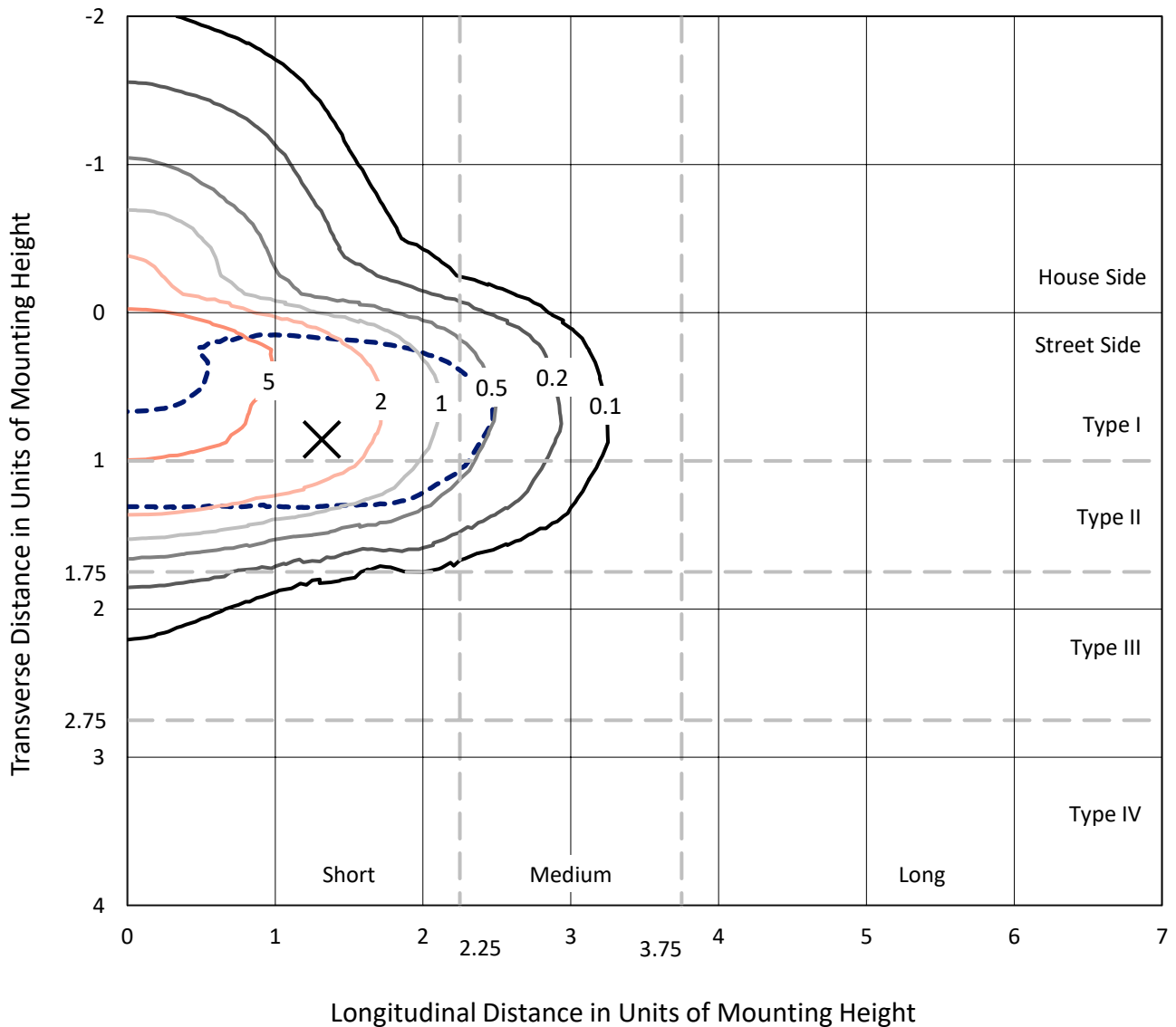
Input Watts (W): 121
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

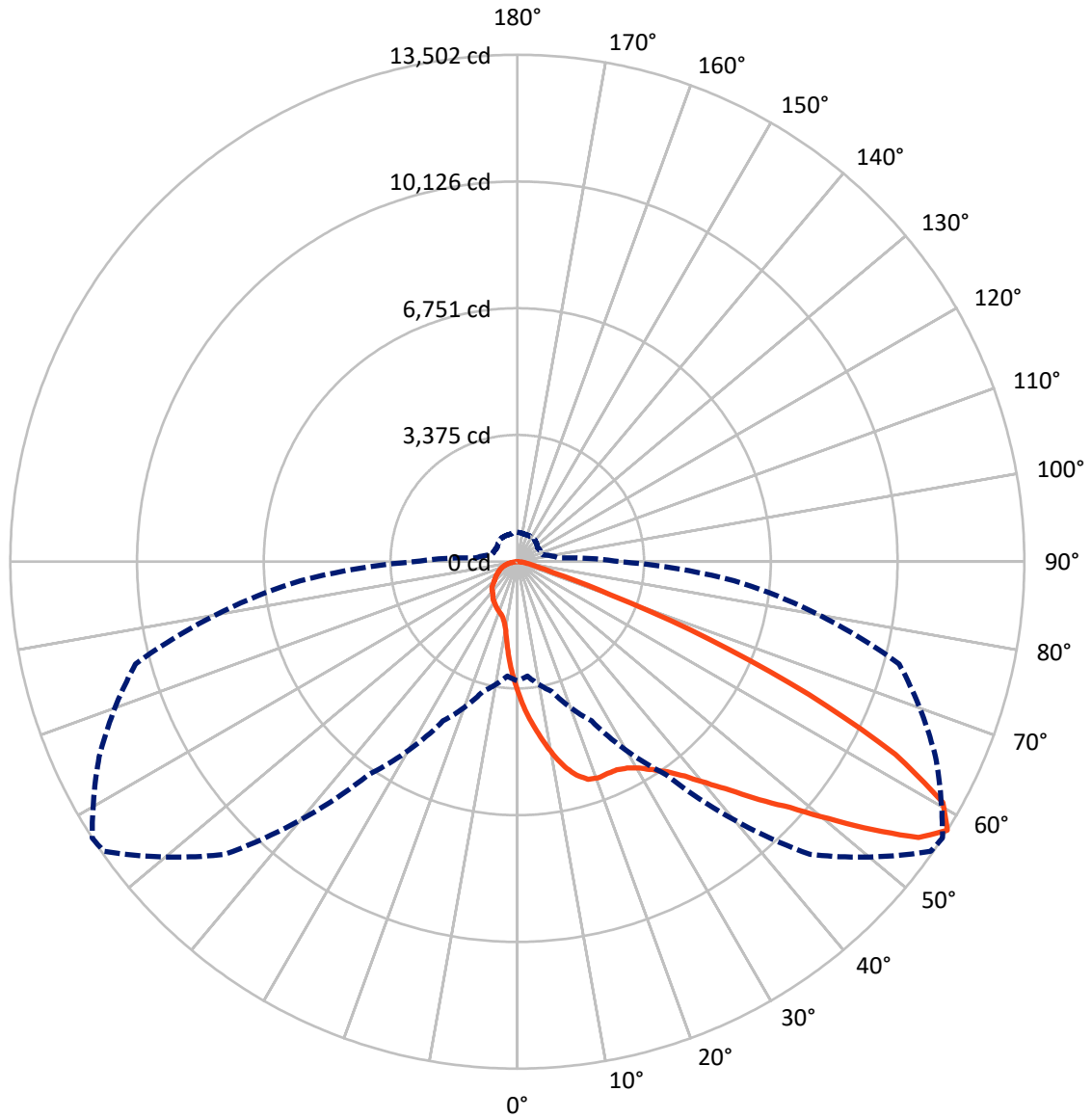
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.5 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2530.0	0.0	2530.0
	% Fixture	15.2	0.0	15.2
Street Side	Lumens	14107.0	0.0	14107.0
	% Fixture	84.8	0.0	84.8
Total	Lumens	16637.0	0.0	16637.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	335.9	2.0
10°-20°	990.0	6.0
20°-30°	1643.9	9.9
30°-40°	2476.2	14.9
40°-50°	3717.8	22.3
50°-60°	4167.2	25.0
60°-70°	2438.8	14.7
70°-80°	721.4	4.3
80°-90°	145.8	0.9
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°	16637.0	100.0
0°-180°	16637.0	100.0

Coefficient of Utilization



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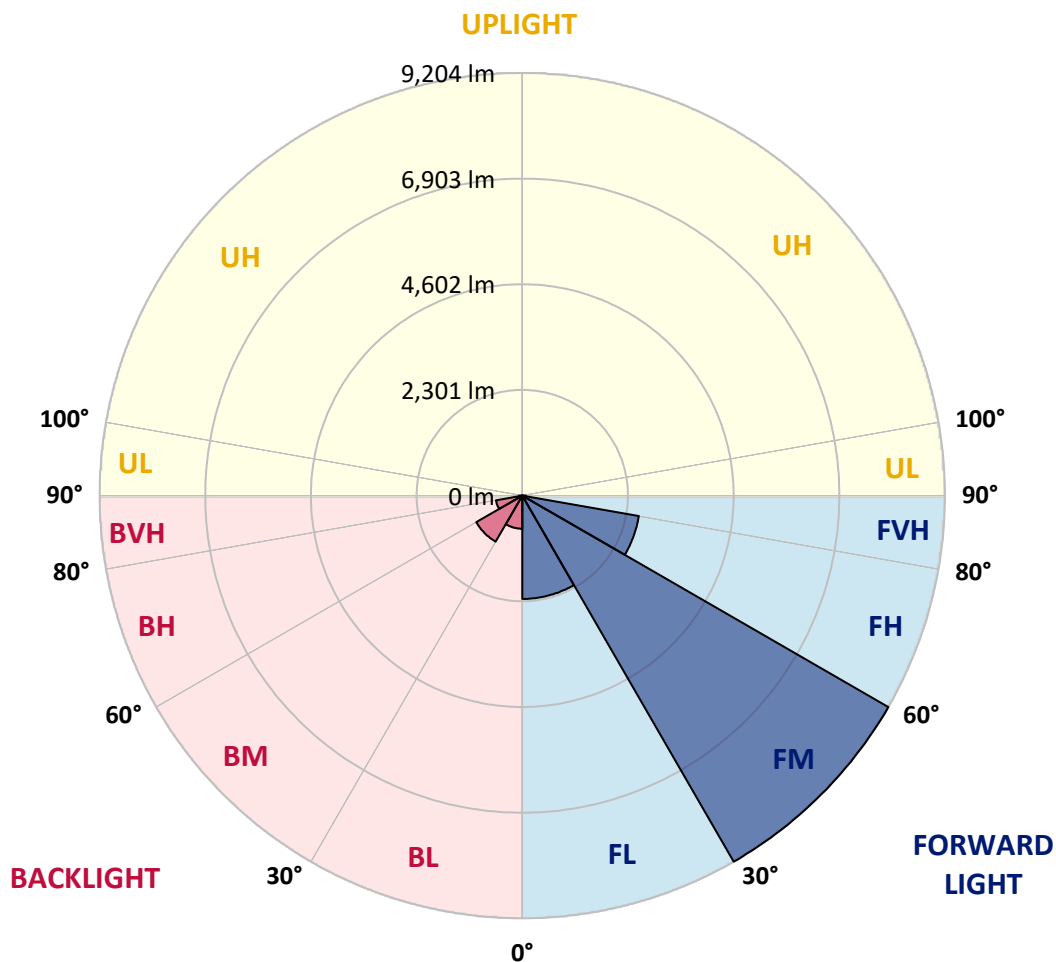
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2248.9	13.5			
FM	(30°-60°)	9204.3	55.3			
FH	(60°-80°)	2578.1	15.5			G2/5000
FVH	(80°-90°)	75.7	0.5			G1/100
BL	(0°-30°)	720.9	4.3	B2/1000		
BM	(30°-60°)	1156.8	7.0	B2/2500		
BH	(60°-80°)	582.1	3.5	B2/1000		G2/1000
BVH	(80°-90°)	70.2	0.4			G1/100
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°	57°	65°	75°	85°
0°	3495.2	3495.2	3495.2	3495.2	3495.2	3495.2	3495.2	3495.2	3495.2	3495.2	3495.2
2.5°	4343.1	4295.7	4258.4	4225.6	4182.8	4067.2	3951.5	3949.7	3857.7	3715.6	3569.9
5°	5050.7	4987.0	4995.2	4893.2	4791.2	4623.6	4378.6	4365.9	4170.1	3904.1	3633.7
7.5°	5511.5	5512.4	5486.9	5428.6	5318.5	5128.1	4850.4	4787.5	4515.2	4111.8	3706.5
10°	5487.8	5512.4	5555.2	5605.3	5639.0	5545.2	5292.0	5215.5	4861.3	4363.1	3787.6
12.5°	5172.7	5211.0	5272.0	5397.7	5600.8	5755.6	5669.1	5607.1	5262.0	4613.6	3876.8
15°	4976.0	4998.8	5032.5	5117.2	5335.8	5706.4	5930.4	5897.7	5639.9	4896.8	3977.0
17.5°	4915.9	4938.7	4949.6	5001.5	5157.3	5537.0	6033.3	6091.6	5975.1	5157.3	4078.1
20°	4976.0	4987.0	4987.0	5017.9	5140.0	5437.8	6028.8	6146.3	6250.1	5469.6	4172.8
22.5°	5133.6	5138.1	5131.8	5142.7	5233.8	5465.1	5986.0	6131.7	6472.3	5734.6	4246.6
25°	5389.5	5396.8	5354.9	5329.4	5395.9	5585.3	6009.7	6143.5	6646.2	5987.8	4295.7
27.5°	5680.0	5689.1	5638.1	5578.9	5609.9	5733.7	6102.6	6222.8	6776.5	6237.3	4326.7
30°	6036.1	6039.7	5954.1	5883.1	5863.0	5955.0	6261.0	6373.0	6938.6	6531.5	4373.2
32.5°	6400.4	6427.7	6317.5	6217.3	6183.6	6211.8	6495.1	6603.4	7131.6	6847.5	4447.8
35°	6895.8	6900.3	6768.3	6646.2	6535.1	6571.6	6794.7	6873.0	7398.5	7212.7	4553.5
37.5°	7514.1	7556.0	7373.9	7146.2	7009.6	6956.8	7157.1	7242.7	7772.8	7660.8	4712.8
40°	8200.8	8216.3	8060.6	7918.5	7669.0	7516.0	7654.4	7747.3	8234.5	8195.3	4897.7
42.5°	8632.5	8666.2	8678.0	8663.4	8475.8	8219.0	8271.8	8315.5	8780.9	8697.1	5087.1
45°	8778.2	8828.3	8997.7	9356.5	9376.5	9123.3	9000.4	9042.3	9376.5	9203.5	5268.4
47.5°	8536.8	8622.5	8934.8	9670.7	10221.6	10240.8	9870.1	9778.1	9919.3	9623.3	5399.5
50°	7913.0	7931.2	8409.3	9474.9	10617.8	11309.0	10925.6	10754.4	10434.7	9933.8	5489.7
52.5°	6947.7	6968.6	7369.3	8565.1	10373.7	12055.8	12160.5	11854.5	10958.4	10175.2	5548.9
55°	5157.3	5278.4	5719.2	6874.8	9217.1	11985.6	13142.2	12968.3	11591.3	10366.4	5641.7
57.5°	3171.0	3059.9	3582.7	4677.3	6932.2	11022.1	13445.5	13501.9	12288.0	10526.7	5797.5
60°	1458.9	1480.8	1696.6	2412.4	4225.6	8622.5	12664.1	13021.1	12673.2	10521.2	5836.6
62.5°	1005.4	985.4	930.7	1059.1	1927.0	5453.2	10697.0	11301.7	11900.9	10194.3	5680.9
65°	898.9	878.8	773.2	737.7	885.2	2376.9	7776.4	8539.6	10020.4	9369.2	5293.0
67.5°	839.7	812.3	703.1	633.8	632.0	946.2	4585.3	5504.2	7432.2	7921.2	4586.3
70°	777.7	755.9	647.5	571.0	538.2	594.7	2015.4	2638.3	4825.8	5708.2	3572.7
72.5°	715.8	690.3	592.9	510.9	468.1	445.3	772.3	1004.5	2726.6	3422.4	2190.2
75°	625.6	612.9	530.0	462.6	416.2	359.7	490.0	559.2	1304.1	1571.9	1099.2
77.5°	547.3	533.7	470.8	404.3	370.7	292.3	347.9	379.8	550.1	637.5	496.3
80°	400.7	414.4	397.1	357.0	330.6	229.5	234.0	260.5	326.9	361.5	303.3
82.5°	254.1	279.6	306.0	275.0	250.4	181.2	162.1	172.1	223.1	236.8	134.8
85°	106.6	108.4	177.6	167.6	143.0	107.5	97.4	102.9	119.3	124.8	62.8
87.5°	41.0	40.1	62.8	58.3	44.6	31.0	31.0	34.6	47.4	43.7	20.0
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°	3495.2	3495.2	3495.2	3495.2	3495.2	3495.2	3495.2	3495.2	3495.2	3495.2	3495.2
2.5°	3507.1	3442.4	3314.0	3154.6	3038.1	2906.9	2791.3	2708.4	2677.4	2662.9	2635.5
5°	3504.4	3376.9	3110.9	2832.3	2608.2	2378.7	2184.8	2059.1	2048.2	1964.4	1956.2
7.5°	3505.3	3310.4	2886.9	2477.1	2135.6	1900.6	1740.3	1698.4	1648.4	1635.6	1642.0
10°	3508.0	3225.7	2646.5	2125.6	1795.0	1641.1	1581.0	1564.6	1566.4	1571.9	1572.8
12.5°	3511.6	3143.7	2396.9	1858.7	1603.7	1540.0	1533.6	1548.2	1563.7	1575.5	1578.2
15°	3516.2	3049.9	2153.8	1643.8	1508.1	1502.6	1523.6	1548.2	1570.0	1587.3	1590.1
17.5°	3510.7	2940.6	1949.8	1511.8	1455.3	1481.7	1516.3	1547.3	1567.3	1583.7	1585.5
20°	3498.0	2818.6	1753.1	1418.9	1422.5	1465.3	1502.6	1531.8	1553.6	1561.8	1568.2
22.5°	3448.8	2672.9	1581.9	1346.9	1383.3	1442.5	1487.2	1504.5	1479.9	1462.6	1467.1
25°	3365.0	2483.5	1422.5	1288.6	1347.8	1410.7	1456.2	1414.3	1394.3	1387.0	1390.6
27.5°	3260.3	2275.8	1302.3	1227.6	1302.3	1375.1	1362.4	1355.1	1346.0	1334.2	1336.9
30°	3147.4	2072.7	1200.3	1180.3	1253.1	1295.0	1300.5	1312.3	1302.3	1284.1	1291.4
32.5°	3042.6	1881.5	1122.9	1140.2	1218.5	1212.1	1253.1	1266.8	1220.3	1159.3	1162.0
35°	2953.4	1703.9	1064.6	1101.0	1159.3	1162.0	1203.0	1155.7	1105.6	1076.4	1078.3
37.5°	2886.0	1565.5	1026.4	1067.3	1083.7	1118.3	1096.5	1071.9	1065.5	1045.5	1046.4
40°	2845.9	1444.4	1001.8	1040.9	1038.2	1061.9	991.7	1016.3	1025.4	1019.1	1020.0
42.5°	2805.8	1358.8	976.3	1004.5	1003.6	957.1	941.7	962.6	986.3	989.0	987.2
45°	2774.0	1292.3	949.9	948.9	967.2	894.3	889.7	902.5	936.2	952.6	951.7
47.5°	2738.5	1236.7	909.8	884.3	889.7	855.1	847.9	853.3	894.3	920.7	928.0
50°	2693.8	1181.2	859.7	825.1	802.3	818.7	820.5	821.4	862.4	892.5	898.9
52.5°	2658.3	1139.3	802.3	776.8	749.5	785.9	799.6	801.4	826.0	850.6	855.1
55°	2679.3	1115.6	745.9	727.6	703.1	752.2	778.6	782.3	787.8	806.0	808.7
57.5°	2742.1	1121.1	700.3	676.6	658.4	712.2	756.8	759.5	755.9	777.7	781.4
60°	2761.2	1118.3	666.6	620.2	609.3	669.4	724.9	730.4	729.5	761.3	767.7
62.5°	2681.1	1083.7	632.9	572.8	565.5	625.6	680.3	702.1	706.7	752.2	760.4
65°	2492.6	1012.7	588.3	522.7	522.7	579.2	637.5	667.5	680.3	741.3	750.4
67.5°	2243.9	928.9	542.8	479.9	478.1	534.6	592.0	622.9	642.9	725.8	731.3
70°	1862.4	816.0	486.3	433.5	433.5	484.5	536.4	573.7	602.9	696.7	696.7
72.5°	1275.9	678.5	418.0	380.7	381.6	428.9	481.8	523.6	558.3	638.4	640.2
75°	806.9	530.0	343.3	324.2	327.8	372.5	427.1	470.8	540.0	631.1	633.8
77.5°	428.9	372.5	273.2	268.7	273.2	314.2	375.2	435.3	541.9	547.3	538.2
80°	277.8	264.1	215.8	206.7	208.5	253.2	334.2	413.5	435.3	440.8	420.7
82.5°	151.2	167.6	153.0	143.9	143.9	197.6	285.0	328.8	312.4	259.5	247.7
85°	64.7	78.3	79.2	69.2	66.5	122.0	191.2	179.4	166.7	159.4	157.6
87.5°	18.2	25.5	25.5	19.1	14.6	33.7	38.2	10.9	0.0	0.9	1.8
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)