

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: P453210

Luminaire Tested: **GALN-SA4B-727-U-AFL**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453210
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-SA4B-727-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19010 lumens
Efficiency: N/A
Efficacy: 115.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

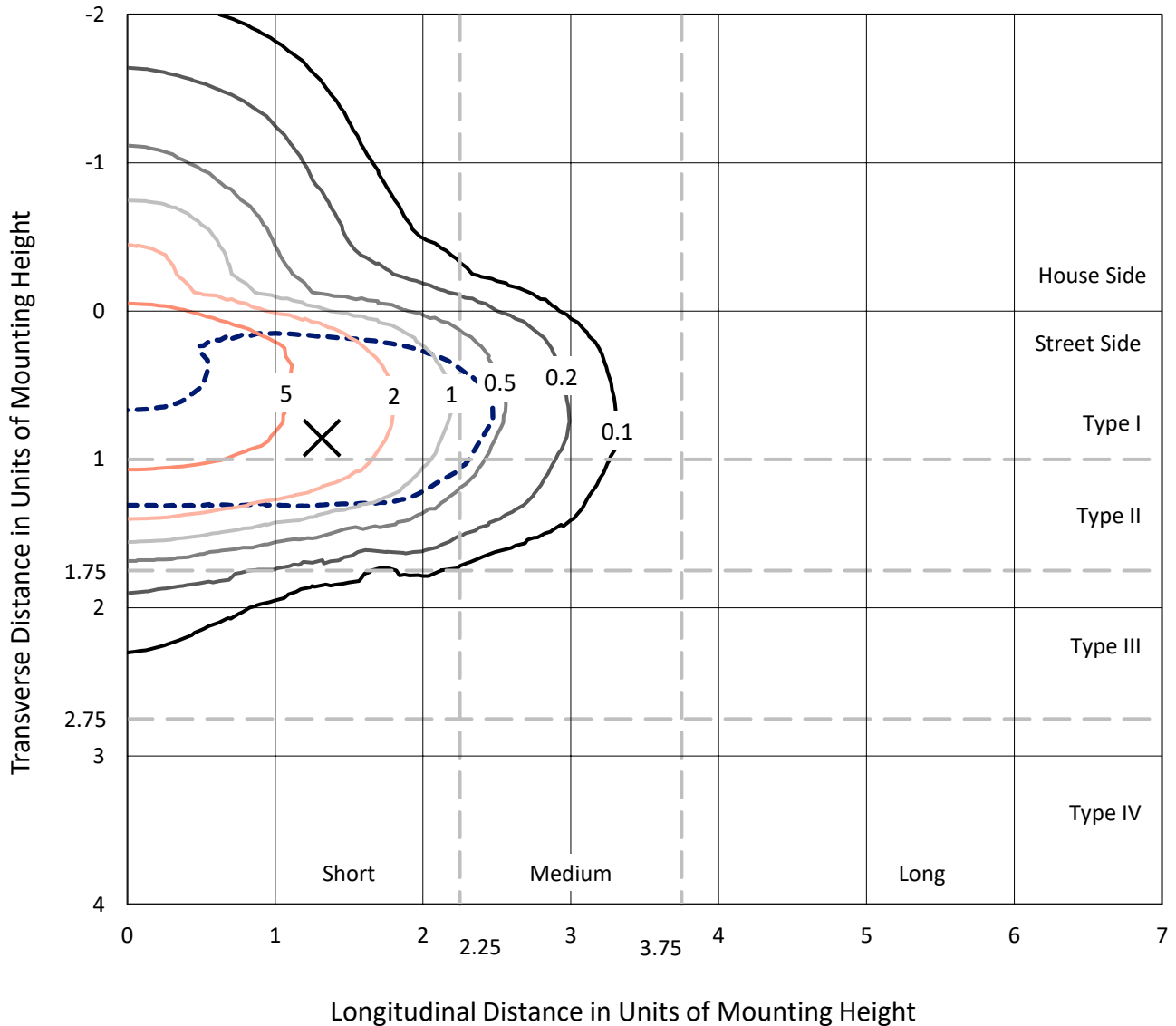
Input Watts (W): 164
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

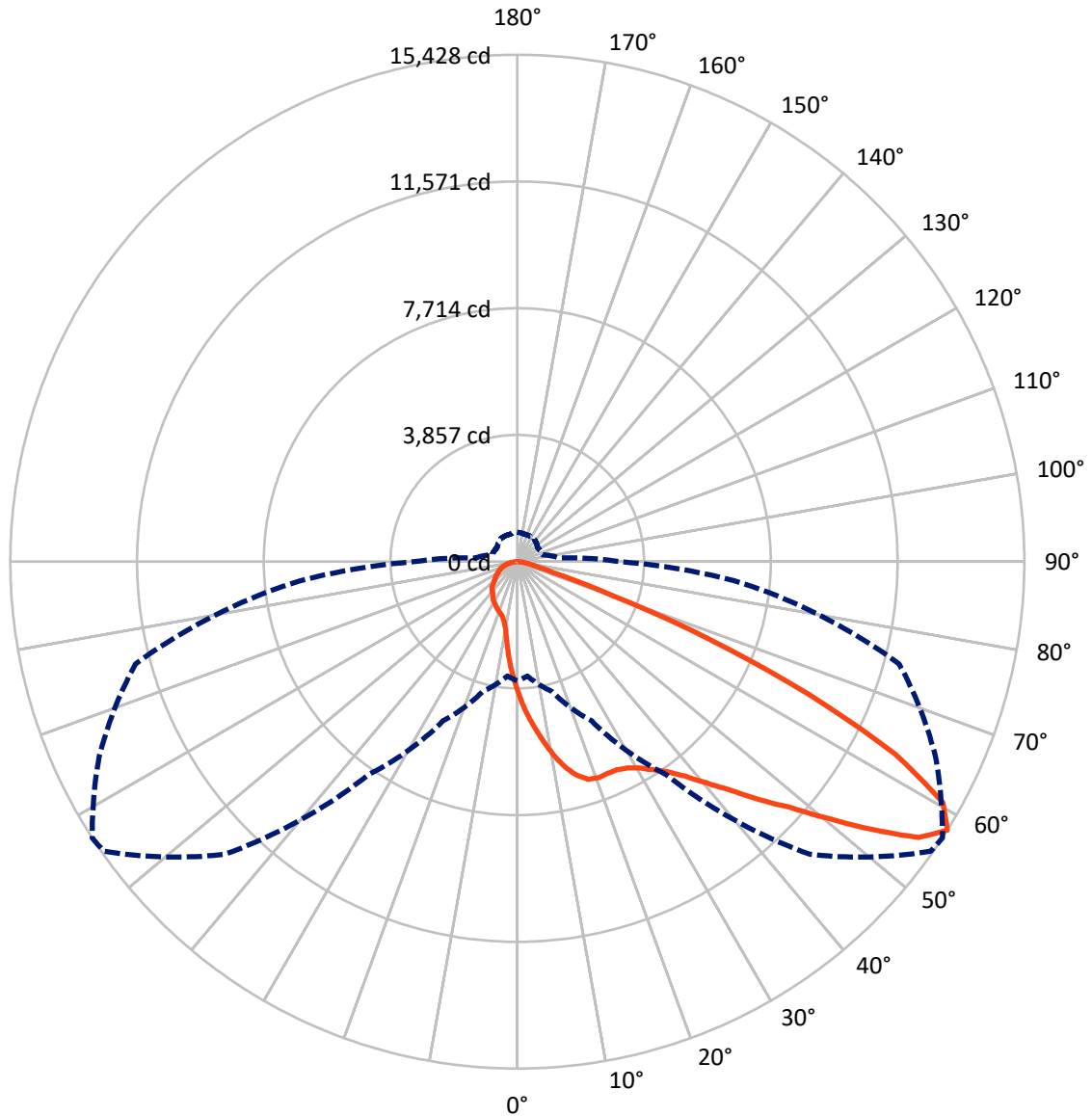
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.7 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	2890.9	0.0	2890.9
	% Fixture	15.2	0.0	15.2
Street Side	Lumens	16119.1	0.0	16119.1
	% Fixture	84.8	0.0	84.8
Total	Lumens	19010.0	0.0	19010.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	383.8	2.0
10°-20°	1131.2	6.0
20°-30°	1878.4	9.9
30°-40°	2829.4	14.9
40°-50°	4248.1	22.3
50°-60°	4761.5	25.0
60°-70°	2786.7	14.7
70°-80°	824.3	4.3
80°-90°	166.6	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°	19010.0	100.0
0°-180°	19010.0	100.0

Coefficient of Utilization



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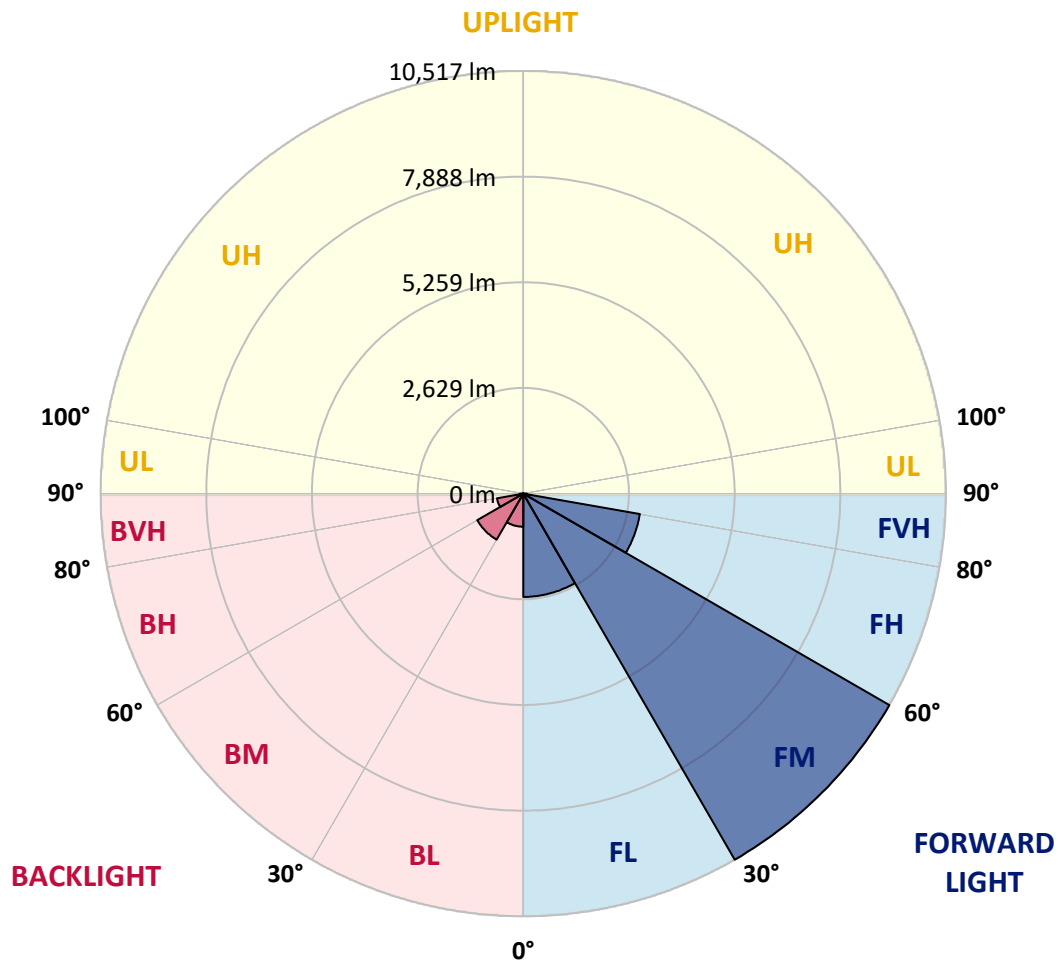
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2569.7	13.5			
FM	(30°-60°)	10517.2	55.3			
FH	(60°-80°)	2945.8	15.5			G2/5000
FVH	(80°-90°)	86.4	0.5			G1/100
BL	(0°-30°)	823.7	4.3	B2/1000		
BM	(30°-60°)	1321.8	7.0	B2/2500		
BH	(60°-80°)	665.2	3.5	B2/1000		G2/1000
BVH	(80°-90°)	80.2	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°	3993.8	3993.8	3993.8	3993.8	3993.8	3993.8	3993.8	3993.8	3993.8	3993.8	3993.8
2.5°	4962.6	4908.5	4865.8	4828.3	4779.4	4647.3	4515.1	4513.0	4407.9	4245.6	4079.1
5°	5771.1	5698.3	5707.6	5591.1	5474.5	5283.1	5003.2	4988.6	4764.9	4461.0	4152.0
7.5°	6297.6	6298.7	6269.6	6203.0	6077.0	5859.6	5542.2	5470.4	5159.2	4698.3	4235.2
10°	6270.6	6298.7	6347.6	6404.8	6443.3	6336.2	6046.9	5959.5	5554.7	4985.5	4327.8
12.5°	5910.5	5954.3	6024.0	6167.6	6399.6	6576.5	6477.7	6406.9	6012.5	5271.6	4429.8
15°	5685.8	5711.8	5750.3	5847.1	6096.8	6520.3	6776.3	6738.9	6444.4	5595.3	4544.3
17.5°	5617.1	5643.1	5655.6	5714.9	5892.9	6326.8	6893.9	6960.5	6827.3	5892.9	4659.8
20°	5685.8	5698.3	5698.3	5733.6	5873.1	6213.4	6888.7	7022.9	7141.6	6249.8	4768.0
22.5°	5865.8	5871.0	5863.7	5876.2	5980.3	6244.6	6839.8	7006.3	7395.5	6552.6	4852.3
25°	6158.2	6166.5	6118.7	6089.5	6165.5	6381.9	6866.9	7019.8	7594.2	6841.9	4908.5
27.5°	6490.2	6500.6	6442.3	6374.7	6410.0	6551.6	6973.0	7110.3	7743.0	7127.0	4943.8
30°	6897.0	6901.2	6803.4	6722.2	6699.3	6804.4	7154.1	7282.0	7928.3	7463.1	4996.9
32.5°	7313.3	7344.5	7218.6	7104.1	7065.6	7097.9	7421.5	7545.3	8148.9	7824.2	5082.2
35°	7879.3	7884.5	7733.7	7594.2	7467.3	7508.9	7763.8	7853.3	8453.8	8241.5	5202.9
37.5°	8585.9	8633.8	8425.7	8165.5	8009.4	7949.1	8178.0	8275.8	8881.4	8753.4	5385.1
40°	9370.5	9388.2	9210.3	9047.9	8762.8	8588.0	8746.2	8852.3	9409.0	9364.3	5596.3
42.5°	9863.8	9902.3	9915.8	9899.1	9684.8	9391.3	9451.7	9501.6	10033.4	9937.6	5812.7
45°	10030.2	10087.5	10281.0	10691.0	10713.9	10424.6	10284.1	10332.0	10713.9	10516.2	6019.8
47.5°	9754.5	9852.3	10209.2	11050.0	11679.6	11701.4	11277.9	11172.8	11334.1	10995.9	6169.7
50°	9041.7	9062.5	9608.8	10826.3	12132.2	12922.0	12484.0	12288.3	11923.1	11350.8	6272.7
52.5°	7938.7	7962.6	8420.5	9786.7	11853.4	13775.3	13895.0	13545.4	12521.4	11626.5	6340.3
55°	5892.9	6031.3	6534.9	7855.4	10531.8	13695.2	15016.8	14818.0	13244.6	11845.0	6446.5
57.5°	3623.3	3496.4	4093.7	5344.5	7921.0	12594.3	15363.3	15427.8	14040.7	12028.2	6624.4
60°	1667.0	1692.0	1938.6	2756.5	4828.3	9852.3	14470.4	14878.4	14480.8	12021.9	6669.1
62.5°	1148.8	1125.9	1063.5	1210.2	2201.9	6231.1	12222.8	12913.7	13598.4	11648.4	6491.2
65°	1027.1	1004.2	883.5	842.9	1011.5	2715.9	8885.6	9757.6	11449.6	10705.6	6047.9
67.5°	959.4	928.2	803.3	724.3	722.2	1081.2	5239.4	6289.3	8492.3	9051.0	5240.4
70°	888.7	863.7	739.9	652.4	615.0	679.5	2302.8	3014.6	5514.1	6522.4	4082.2
72.5°	817.9	788.8	677.4	583.8	534.9	508.8	882.4	1147.8	3115.5	3910.5	2502.6
75°	714.9	700.3	605.6	528.6	475.5	411.0	559.8	638.9	1490.1	1796.1	1256.0
77.5°	625.4	609.8	538.0	462.0	423.5	334.0	397.5	433.9	628.5	728.4	567.1
80°	457.9	473.5	453.7	407.9	377.7	262.2	267.4	297.6	373.6	413.1	346.5
82.5°	290.3	319.5	349.6	314.3	286.2	207.1	185.2	196.7	254.9	270.6	154.0
85°	121.7	123.8	202.9	191.5	163.4	122.8	111.3	117.6	136.3	142.6	71.8
87.5°	46.8	45.8	71.8	66.6	51.0	35.4	35.4	39.5	54.1	49.9	22.9
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°	3993.8	3993.8	3993.8	3993.8	3993.8	3993.8	3993.8	3993.8	3993.8	3993.8	3993.8
2.5°	4007.3	3933.4	3786.7	3604.6	3471.4	3321.6	3189.4	3094.7	3059.3	3042.7	3011.5
5°	4004.2	3858.5	3554.7	3236.2	2980.2	2718.0	2496.4	2352.8	2340.3	2244.6	2235.2
7.5°	4005.2	3782.5	3298.7	2830.4	2440.2	2171.7	1988.6	1940.7	1883.5	1868.9	1876.2
10°	4008.4	3685.8	3024.0	2428.7	2051.0	1875.1	1806.5	1787.7	1789.8	1796.1	1797.1
12.5°	4012.5	3592.1	2738.8	2123.8	1832.5	1759.6	1752.4	1769.0	1786.7	1800.2	1803.3
15°	4017.7	3484.9	2461.0	1878.3	1723.2	1717.0	1740.9	1769.0	1794.0	1813.7	1816.9
17.5°	4011.5	3360.1	2227.9	1727.4	1662.9	1693.0	1732.6	1768.0	1790.9	1809.6	1811.7
20°	3996.9	3220.6	2003.1	1621.2	1625.4	1674.3	1717.0	1750.3	1775.2	1784.6	1791.9
22.5°	3940.7	3054.1	1807.5	1539.0	1580.7	1648.3	1699.3	1719.1	1691.0	1671.2	1676.4
25°	3845.0	2837.7	1625.4	1472.4	1540.1	1611.9	1663.9	1616.0	1593.1	1584.8	1589.0
27.5°	3725.3	2600.4	1488.0	1402.7	1488.0	1571.3	1556.7	1548.4	1538.0	1524.5	1527.6
30°	3596.3	2368.4	1371.5	1348.6	1431.9	1479.7	1486.0	1499.5	1488.0	1467.2	1475.6
32.5°	3476.6	2149.9	1283.0	1302.8	1392.3	1385.0	1431.9	1447.5	1394.4	1324.7	1327.8
35°	3374.6	1946.9	1216.4	1258.1	1324.7	1327.8	1374.6	1320.5	1263.3	1230.0	1232.1
37.5°	3297.6	1788.8	1172.7	1219.6	1238.3	1277.8	1252.9	1224.8	1217.5	1194.6	1195.6
40°	3251.8	1650.4	1144.6	1189.4	1186.3	1213.3	1133.2	1161.3	1171.7	1164.4	1165.5
42.5°	3206.1	1552.6	1115.5	1147.8	1146.7	1093.7	1076.0	1099.9	1127.0	1130.1	1128.0
45°	3169.6	1476.6	1085.3	1084.3	1105.1	1021.9	1016.7	1031.2	1069.7	1088.5	1087.4
47.5°	3129.1	1413.1	1039.5	1010.4	1016.7	977.1	968.8	975.0	1021.9	1052.0	1060.4
50°	3078.1	1349.6	982.3	942.8	916.8	935.5	937.6	938.6	985.4	1019.8	1027.1
52.5°	3037.5	1301.8	916.8	887.6	856.4	898.0	913.6	915.7	943.8	971.9	977.1
55°	3061.4	1274.7	852.2	831.4	803.3	859.5	889.7	893.9	900.1	920.9	924.0
57.5°	3133.2	1281.0	800.2	773.2	752.3	813.7	864.7	867.9	863.7	888.7	892.8
60°	3155.1	1277.8	761.7	708.6	696.2	764.8	828.3	834.6	833.5	869.9	877.2
62.5°	3063.5	1238.3	723.2	654.5	646.2	714.9	777.3	802.3	807.5	859.5	868.9
65°	2848.1	1157.1	672.2	597.3	597.3	661.8	728.4	762.8	777.3	847.0	857.4
67.5°	2564.0	1061.4	620.2	548.4	546.3	610.8	676.4	711.8	734.7	829.4	835.6
70°	2128.0	932.4	555.7	495.3	495.3	553.6	612.9	655.6	688.9	796.1	796.1
72.5°	1457.9	775.2	477.6	435.0	436.0	490.1	550.5	598.3	637.9	729.5	731.5
75°	922.0	605.6	392.3	370.4	374.6	425.6	488.0	538.0	617.1	721.1	724.3
77.5°	490.1	425.6	312.2	307.0	312.2	359.0	428.7	497.4	619.2	625.4	615.0
80°	317.4	301.8	246.6	236.2	238.3	289.3	381.9	472.4	497.4	503.6	480.8
82.5°	172.7	191.5	174.8	164.4	164.4	225.8	325.7	375.7	356.9	296.6	283.0
85°	73.9	89.5	90.5	79.1	76.0	139.4	218.5	205.0	190.4	182.1	180.0
87.5°	20.8	29.1	29.1	21.9	16.6	38.5	43.7	12.5	0.0	1.0	2.1
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)