

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: P453239

Luminaire Tested: **GALN-SA4B-730-U-AFL**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453239  
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-730-U-AFL  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20701 lumens  
Efficiency: N/A  
Efficacy: 126.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G2

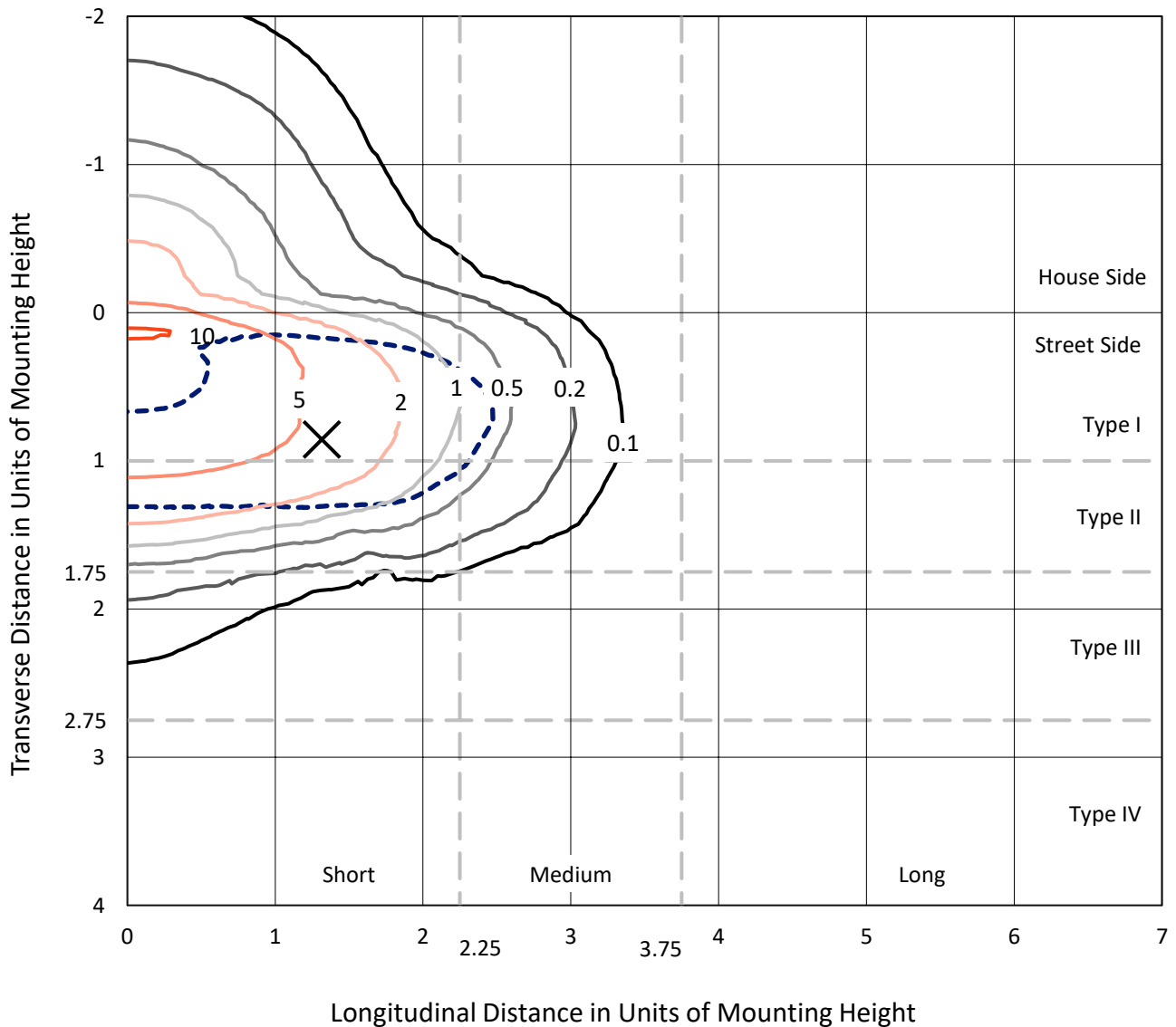
Input Watts (W): 164  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

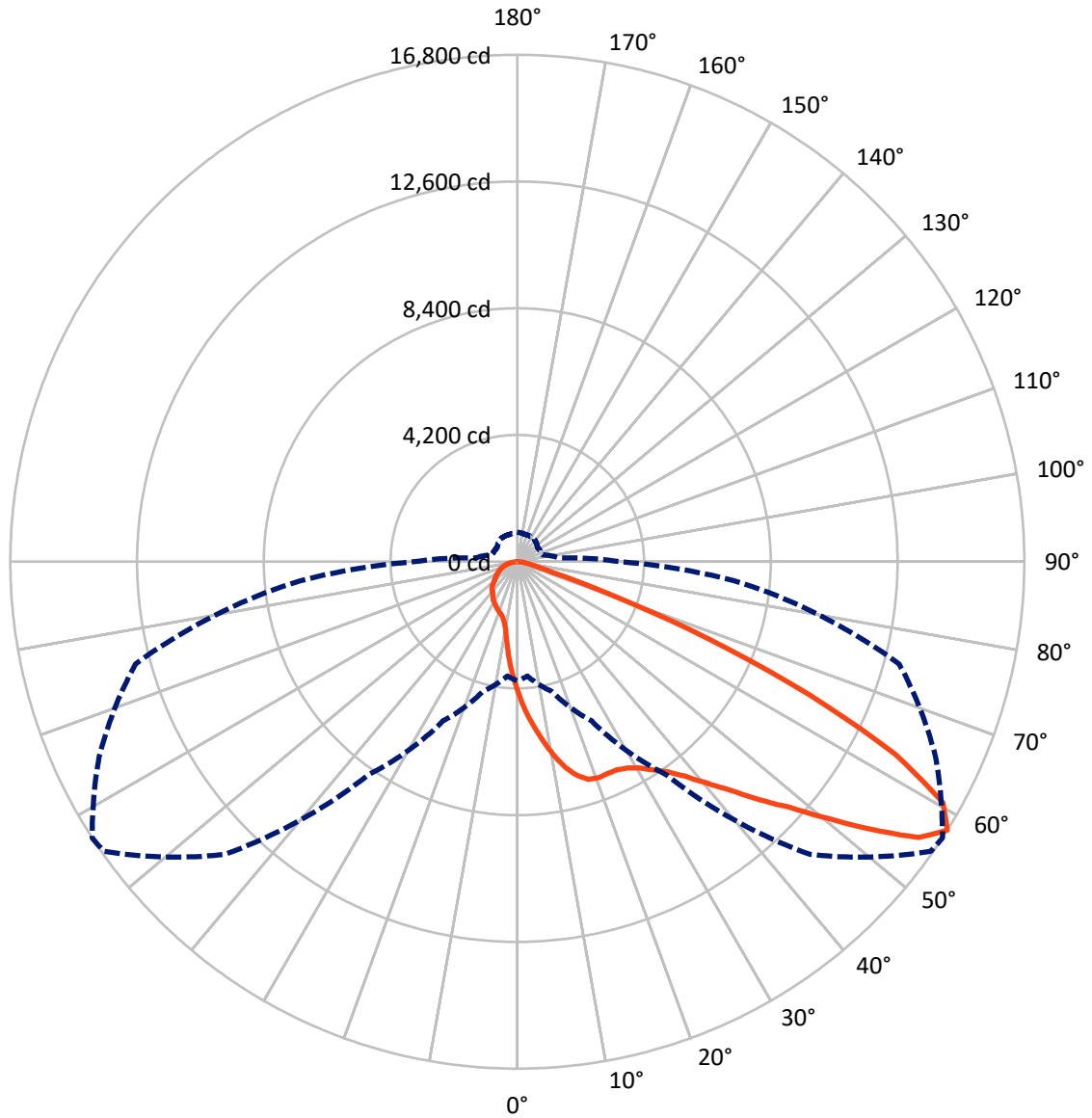
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.6 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
<b>House Side</b>	Lumens	3148.0	0.0	3148.0
	% Fixture	15.2	0.0	15.2
<b>Street Side</b>	Lumens	17553.0	0.0	17553.0
	% Fixture	84.8	0.0	84.8
<b>Total</b>	Lumens	20701.0	0.0	20701.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	418.0	2.0
10°-20°	1231.8	6.0
20°-30°	2045.5	9.9
30°-40°	3081.1	14.9
40°-50°	4625.9	22.3
50°-60°	5185.1	25.0
60°-70°	3034.6	14.7
70°-80°	897.6	4.3
80°-90°	181.4	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°	20701.0	100.0
0°-180°	20701.0	100.0

**Coefficient of Utilization**



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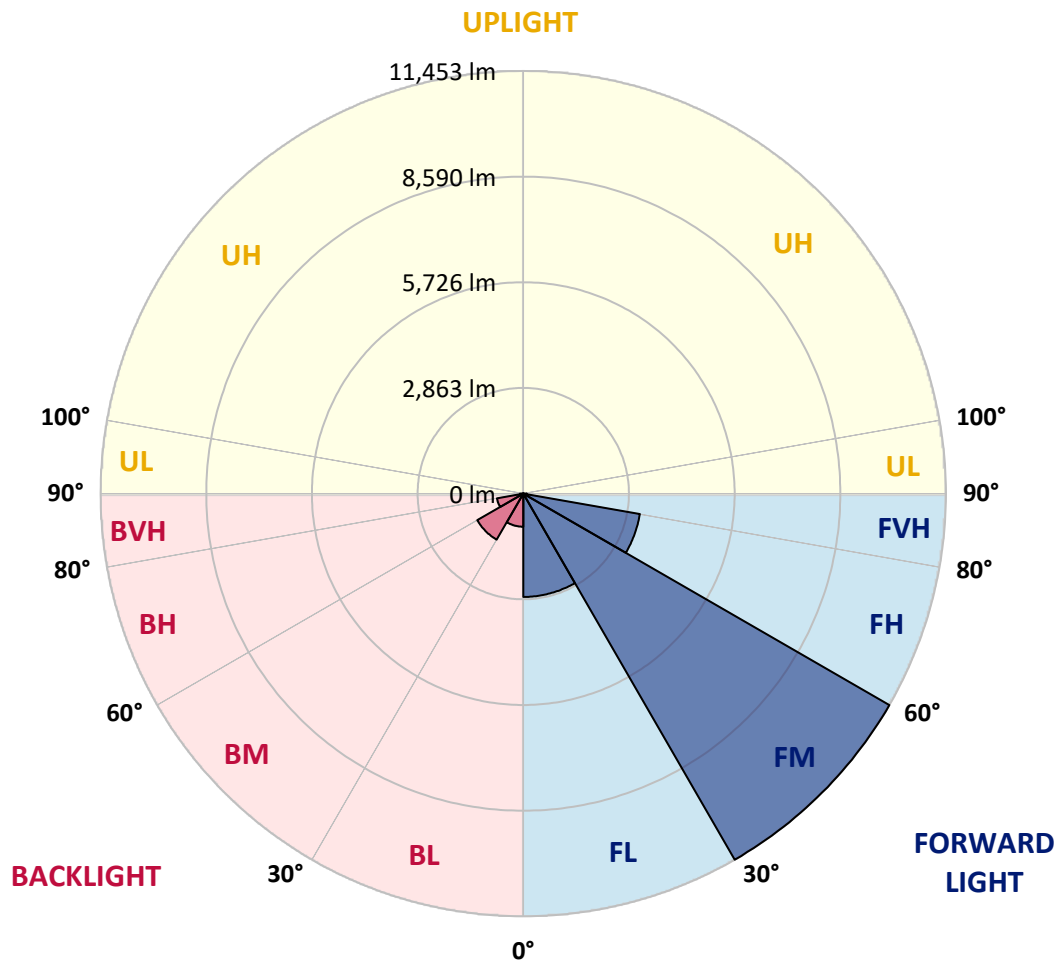
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2798.3	13.5			
FM	(30°-60°)	11452.7	55.3			
FH	(60°-80°)	3207.8	15.5			G2/5000
FVH	(80°-90°)	94.1	0.5			G1/100
BL	(0°-30°)	897.0	4.3	B2/1000		
BM	(30°-60°)	1439.4	7.0	B2/2500		
BH	(60°-80°)	724.3	3.5	B2/1000		G2/1000
BVH	(80°-90°)	87.3	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°	4349.0	4349.0	4349.0	4349.0	4349.0	4349.0	4349.0	4349.0	4349.0	4349.0	4349.0
2.5°	5404.0	5345.1	5298.6	5257.8	5204.6	5060.7	4916.8	4914.5	4800.0	4623.3	4442.0
5°	6284.5	6205.1	6215.3	6088.4	5961.5	5753.0	5448.2	5432.3	5188.7	4857.8	4521.3
7.5°	6857.8	6859.0	6827.2	6754.7	6617.6	6380.8	6035.2	5957.0	5618.2	5116.2	4611.9
10°	6828.4	6859.0	6912.2	6974.6	7016.5	6899.8	6584.8	6489.6	6048.8	5428.9	4712.8
12.5°	6436.3	6483.9	6559.8	6716.2	6968.9	7161.5	7053.9	6976.8	6547.4	5740.6	4823.8
15°	6191.6	6219.9	6261.8	6367.2	6639.1	7100.3	7379.1	7338.3	7017.6	6093.0	4948.5
17.5°	6116.8	6145.1	6158.7	6223.3	6417.0	6889.6	7507.1	7579.7	7434.6	6417.0	5074.3
20°	6191.6	6205.1	6205.1	6243.7	6395.5	6766.1	7501.5	7647.7	7776.8	6805.7	5192.1
22.5°	6387.6	6393.3	6385.3	6398.9	6512.2	6800.1	7448.2	7629.5	8053.3	7135.5	5283.9
25°	6706.0	6715.1	6662.9	6631.2	6713.9	6949.6	7477.7	7644.3	8269.8	7450.5	5345.1
27.5°	7067.5	7078.8	7015.4	6941.7	6980.2	7134.3	7593.3	7742.8	8431.8	7761.0	5383.6
30°	7510.5	7515.1	7408.6	7320.2	7295.2	7409.7	7790.4	7929.8	8633.5	8127.0	5441.4
32.5°	7963.8	7997.8	7860.7	7736.0	7694.1	7729.2	8081.7	8216.5	8873.7	8520.2	5534.3
35°	8580.2	8585.9	8421.6	8269.8	8131.5	8176.8	8454.5	8551.9	9205.7	8974.6	5665.8
37.5°	9349.6	9401.8	9175.1	8891.9	8721.9	8656.2	8905.5	9012.0	9671.5	9532.1	5864.1
40°	10204.0	10223.3	10029.5	9852.8	9542.3	9351.9	9524.2	9639.7	10246.0	10197.2	6094.1
42.5°	10741.2	10783.1	10797.8	10779.7	10546.3	10226.7	10292.4	10346.8	10925.9	10821.6	6329.8
45°	10922.5	10984.8	11195.6	11642.0	11666.9	11351.9	11199.0	11251.1	11666.9	11451.6	6555.3
47.5°	10622.2	10728.7	11117.4	12033.0	12718.5	12742.3	12281.1	12166.7	12342.3	11974.0	6718.5
50°	9846.0	9868.6	10463.5	11789.3	13211.4	14071.5	13594.4	13381.4	12983.7	12360.4	6830.6
52.5°	8644.8	8670.9	9169.5	10657.3	12907.8	15000.7	15131.0	14750.3	13635.2	12660.7	6904.3
55°	6417.0	6567.8	7116.2	8554.2	11468.6	14913.4	16352.5	16136.1	14422.8	12898.7	7019.9
57.5°	3945.6	3807.4	4457.8	5819.9	8625.6	13714.6	16729.9	16800.1	15289.6	13098.1	7213.7
60°	1815.3	1842.5	2111.1	3001.7	5257.8	10728.7	15757.6	16201.8	15769.0	13091.3	7262.4
62.5°	1251.0	1226.1	1158.1	1317.9	2397.8	6785.3	13310.0	14062.4	14808.1	12684.5	7068.6
65°	1118.4	1093.5	962.0	917.9	1101.4	2957.5	9676.0	10625.6	12468.1	11657.9	6585.9
67.5°	1044.8	1010.8	874.8	788.7	786.4	1177.3	5705.4	6848.8	9247.7	9856.2	5706.6
70°	967.7	940.5	805.7	710.5	669.7	739.9	2507.7	3282.7	6004.6	7102.6	4445.4
72.5°	890.7	858.9	737.7	635.7	582.4	554.1	960.9	1249.9	3392.7	4258.4	2725.2
75°	778.5	762.6	659.5	575.6	517.9	447.6	609.6	695.8	1622.7	1955.8	1367.7
77.5°	681.0	664.0	585.8	503.1	461.2	363.7	432.9	472.5	684.4	793.2	617.6
80°	498.6	515.6	494.1	444.2	411.3	285.6	291.2	324.1	406.8	449.9	377.3
82.5°	316.1	347.9	380.7	342.2	311.6	225.5	201.7	214.2	277.6	294.6	167.7
85°	132.6	134.8	221.0	208.5	177.9	133.7	121.2	128.0	148.4	155.2	78.2
87.5°	51.0	49.9	78.2	72.5	55.5	38.5	38.5	43.1	58.9	54.4	24.9
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°	4349.0	4349.0	4349.0	4349.0	4349.0	4349.0	4349.0	4349.0	4349.0	4349.0	4349.0
2.5°	4363.8	4283.3	4123.5	3925.2	3780.2	3617.0	3473.1	3370.0	3331.5	3313.3	3279.3
5°	4360.4	4201.7	3870.9	3524.1	3245.4	2959.8	2718.4	2562.1	2548.5	2444.2	2434.0
7.5°	4361.5	4119.0	3592.1	3082.2	2657.2	2364.9	2165.5	2113.3	2051.0	2035.1	2043.1
10°	4364.9	4013.6	3292.9	2644.8	2233.4	2041.9	1967.2	1946.8	1949.0	1955.8	1957.0
12.5°	4369.4	3911.6	2982.5	2312.8	1995.5	1916.2	1908.2	1926.4	1945.6	1960.4	1963.8
15°	4375.1	3794.9	2679.9	2045.3	1876.5	1869.7	1895.8	1926.4	1953.6	1975.1	1978.5
17.5°	4368.3	3659.0	2426.1	1881.0	1810.8	1843.6	1886.7	1925.2	1950.2	1970.6	1972.8
20°	4352.4	3507.1	2181.3	1765.5	1770.0	1823.2	1869.7	1906.0	1933.2	1943.4	1951.3
22.5°	4291.3	3325.8	1968.3	1675.9	1721.3	1794.9	1850.4	1872.0	1841.4	1819.8	1825.5
25°	4187.0	3090.1	1770.0	1603.4	1677.1	1755.3	1811.9	1759.8	1734.9	1725.8	1730.3
27.5°	4056.7	2831.8	1620.4	1527.5	1620.4	1711.1	1695.2	1686.1	1674.8	1660.1	1663.5
30°	3916.2	2579.1	1493.5	1468.6	1559.2	1611.3	1618.1	1632.9	1620.4	1597.7	1606.8
32.5°	3785.9	2341.1	1397.2	1418.7	1516.2	1508.2	1559.2	1576.2	1518.4	1442.5	1445.9
35°	3674.8	2120.1	1324.7	1370.0	1442.5	1445.9	1496.9	1438.0	1375.6	1339.4	1341.7
37.5°	3591.0	1947.9	1277.1	1328.1	1348.5	1391.5	1364.3	1333.7	1325.8	1300.9	1302.0
40°	3541.1	1797.2	1246.5	1295.2	1291.8	1321.3	1234.0	1264.6	1275.9	1268.0	1269.1
42.5°	3491.2	1690.7	1214.7	1249.9	1248.7	1190.9	1171.7	1197.7	1227.2	1230.6	1228.3
45°	3451.6	1607.9	1181.9	1180.7	1203.4	1112.8	1107.1	1123.0	1164.9	1185.3	1184.1
47.5°	3407.4	1538.8	1132.0	1100.3	1107.1	1064.0	1055.0	1061.8	1112.8	1145.6	1154.7
50°	3351.9	1469.7	1069.7	1026.6	998.3	1018.7	1021.0	1022.1	1073.1	1110.5	1118.4
52.5°	3307.7	1417.6	998.3	966.6	932.6	977.9	994.9	997.2	1027.8	1058.4	1064.0
55°	3333.7	1388.1	928.1	905.4	874.8	936.0	968.8	973.4	980.2	1002.8	1006.2
57.5°	3411.9	1394.9	871.4	841.9	819.3	886.1	941.7	945.1	940.5	967.7	972.2
60°	3435.7	1391.5	829.5	771.7	758.1	832.9	902.0	908.8	907.7	947.3	955.2
62.5°	3336.0	1348.5	787.5	712.8	703.7	778.5	846.5	873.7	879.3	936.0	946.2
65°	3101.4	1260.1	732.0	650.4	650.4	720.7	793.2	830.6	846.5	922.4	933.7
67.5°	2792.1	1155.8	675.4	597.2	594.9	665.2	736.5	775.1	800.0	903.1	909.9
70°	2317.3	1015.3	605.1	539.4	539.4	602.8	667.4	713.9	750.1	866.9	866.9
72.5°	1587.5	844.2	520.1	473.7	474.8	533.7	599.4	651.6	694.6	794.3	796.6
75°	1004.0	659.5	427.2	403.4	407.9	463.5	531.4	585.8	672.0	785.3	788.7
77.5°	533.7	463.5	339.9	334.3	339.9	390.9	466.9	541.6	674.2	681.0	669.7
80°	345.6	328.6	268.6	257.2	259.5	315.0	415.9	514.5	541.6	548.4	523.5
82.5°	188.1	208.5	190.4	179.0	179.0	245.9	354.7	409.1	388.7	322.9	308.2
85°	80.5	97.5	98.6	86.1	82.7	151.8	238.0	223.2	207.4	198.3	196.0
87.5°	22.7	31.7	31.7	23.8	18.1	41.9	47.6	13.6	0.0	1.1	2.3
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)