

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: P454667

Luminaire Tested: **GALN-SA5D-740-U-SL4**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P454667
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-18)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA5D-740-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37921 lumens
Efficiency: N/A
Efficacy: 122.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

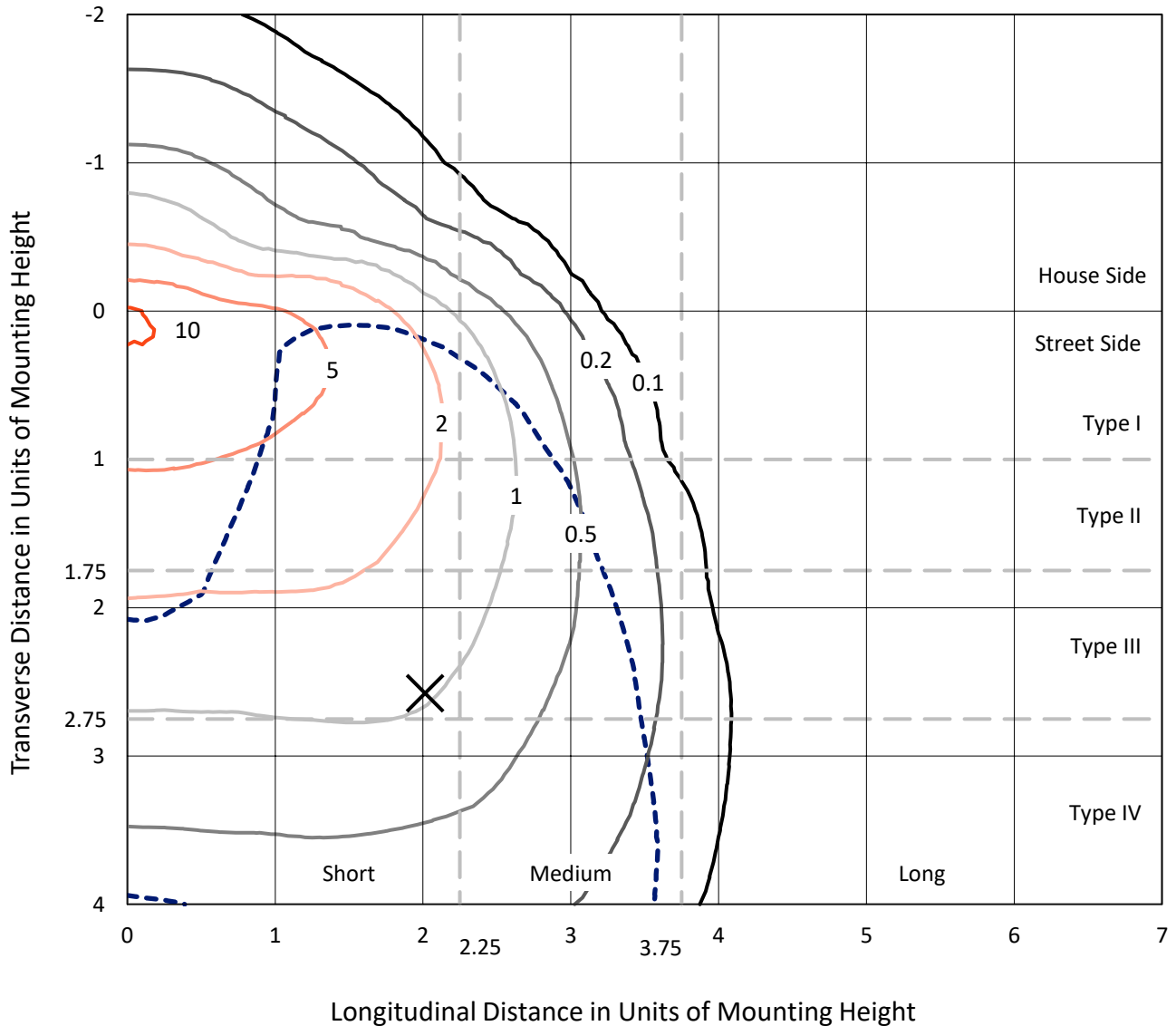
Input Watts (W): 309
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

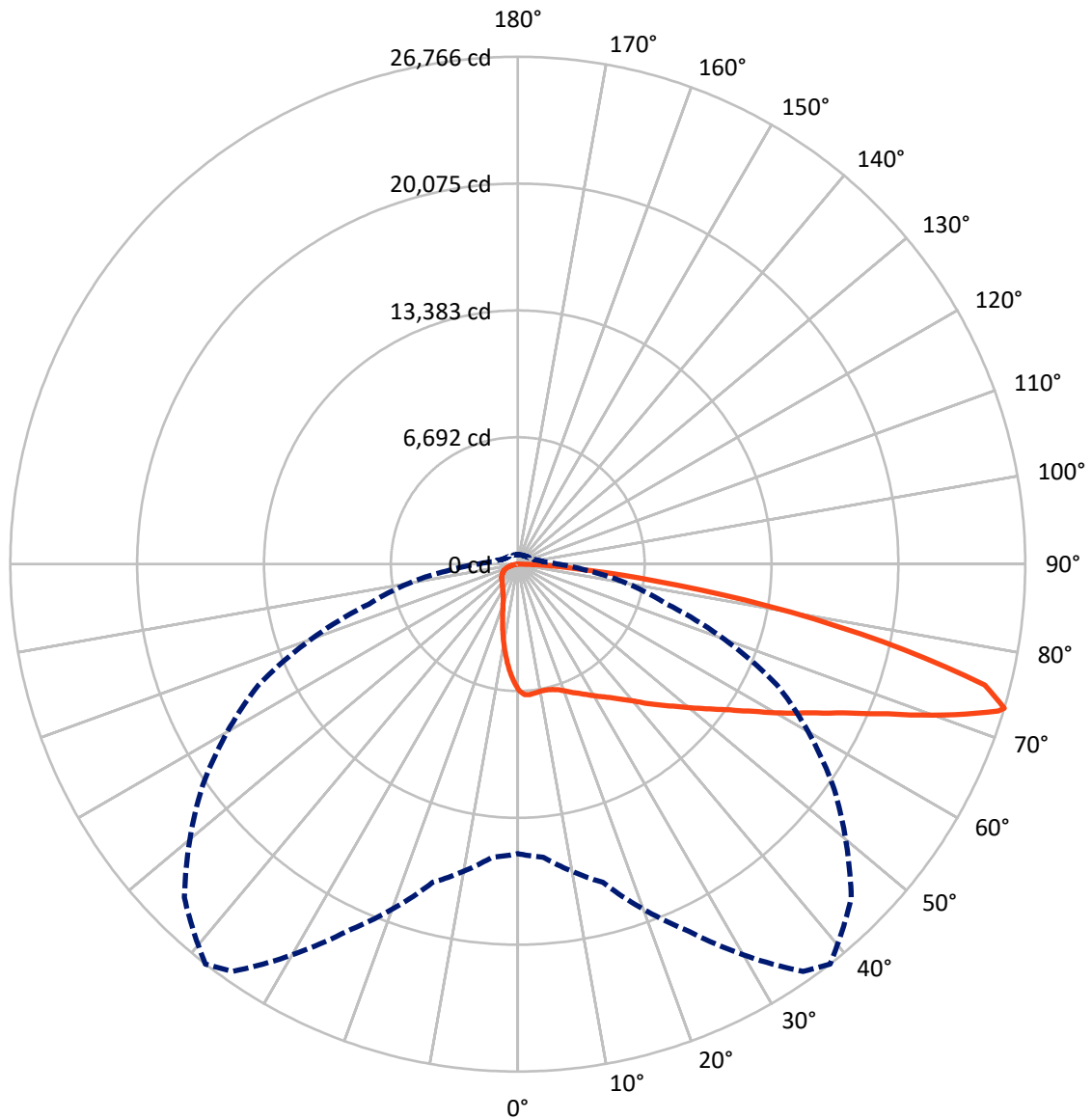
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5097.7	0.0	5097.7
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	32823.3	0.0	32823.3
	% Fixture	86.6	0.0	86.6
Total	Lumens	37921.0	0.0	37921.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	581.5	1.5
10°-20°	1491.2	3.9
20°-30°	2322.1	6.1
30°-40°	3406.0	9.0
40°-50°	5052.4	13.3
50°-60°	7158.3	18.9
60°-70°	9080.5	23.9
70°-80°	7558.8	19.9
80°-90°	1270.0	3.3
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°	37921.0	100.0
0°-180°	37921.0	100.0



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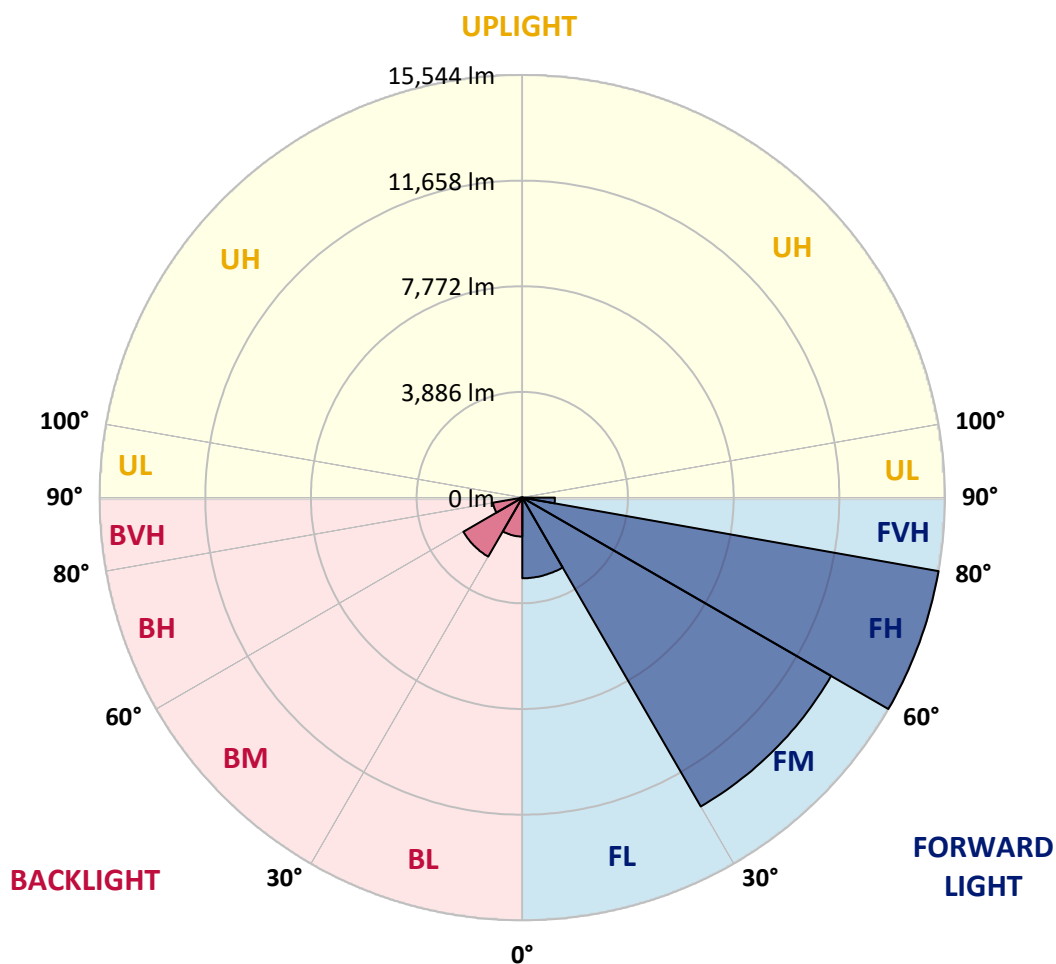
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2964.4	7.8			
FM (30°-60°)	13114.1	34.6			
FH (60°-80°)	15543.7	41.0			G5
FVH (80°-90°)	1201.1	3.2			G5
BL (0°-30°)	1430.5	3.8	B3/2500		
BM (30°-60°)	2502.7	6.6	B3/5000		
BH (60°-80°)	1095.7	2.9	B3/2500		G3/2500
BVH (80°-90°)	68.9	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	6662.1	6662.1	6662.1	6662.1	6662.1	6662.1	6662.1	6662.1	6662.1	6662.1	6662.1
2.5°	6929.8	6964.0	6946.9	6923.3	6908.3	6893.4	6871.9	6809.8	6760.6	6707.0	6623.5
5°	6981.2	7002.6	6987.6	6957.6	6923.3	6908.3	6867.7	6786.3	6707.0	6617.1	6492.9
7.5°	6951.2	6959.7	6942.6	6906.2	6876.2	6848.4	6801.3	6711.3	6615.0	6505.8	6343.0
10°	6844.1	6876.2	6876.2	6846.2	6816.3	6801.3	6754.2	6668.5	6580.7	6456.5	6263.8
12.5°	6756.3	6790.6	6818.4	6809.8	6807.7	6807.7	6771.3	6707.0	6604.3	6486.5	6257.3
15°	6696.3	6737.0	6797.0	6831.3	6852.7	6859.1	6844.1	6788.4	6683.5	6546.4	6283.0
17.5°	6683.5	6732.7	6842.0	6916.9	6972.6	6970.4	6966.2	6889.1	6773.4	6632.1	6315.2
20°	6741.3	6805.6	6957.6	7075.4	7156.8	7141.8	7118.2	7017.6	6882.6	6724.2	6345.1
22.5°	6914.8	6981.2	7148.2	7276.7	7355.9	7355.9	7285.2	7152.5	7009.0	6831.3	6385.8
25°	7163.2	7236.0	7413.7	7544.4	7580.8	7552.9	7482.3	7321.6	7156.8	6985.4	6471.5
27.5°	7467.3	7555.1	7720.0	7829.2	7818.5	7797.0	7724.2	7518.7	7353.8	7197.4	6617.1
30°	7846.3	7910.5	8081.9	8107.6	8069.0	8064.7	7961.9	7756.4	7602.2	7482.3	6824.8
32.5°	8203.9	8261.7	8398.8	8409.5	8341.0	8349.5	8253.2	8064.7	7976.9	7934.1	7173.9
35°	8583.0	8612.9	8730.7	8717.9	8672.9	8666.5	8627.9	8448.1	8475.9	8553.0	7668.6
37.5°	8899.9	8959.9	9026.2	9037.0	9034.8	9056.2	9081.9	8996.3	9156.9	9398.9	8317.4
40°	9191.1	9242.5	9341.0	9375.3	9458.8	9501.7	9589.5	9591.6	9962.1	10360.4	9116.2
42.5°	9388.2	9476.0	9660.1	9722.2	9925.7	10054.1	10184.8	10324.0	10861.5	11373.3	10058.4
45°	9559.5	9675.1	9981.3	10174.1	10450.3	10606.6	10882.9	11174.1	11947.2	12617.5	11015.7
47.5°	9818.6	9921.4	10272.6	10613.1	11030.7	11210.5	11623.8	12058.6	13069.3	13803.8	11932.2
50°	10178.4	10240.5	10598.1	11152.7	11685.9	11917.2	12463.3	13090.7	14268.5	14975.2	12737.4
52.5°	10638.8	10664.5	10949.3	11688.1	12390.5	12677.4	13401.2	14133.6	15317.9	15992.4	13375.5
55°	11182.7	11139.9	11362.6	12255.6	13195.7	13570.4	14347.8	15189.4	16497.8	16814.7	13840.2
57.5°	11720.2	11653.8	11831.6	12945.1	14189.3	14641.2	15547.0	16277.2	17551.4	17583.5	14165.7
60°	12289.8	12240.6	12452.6	13754.6	15407.8	15943.2	16780.5	17405.8	18570.7	18118.9	14217.1
62.5°	12874.4	12795.2	13097.2	14664.7	16780.5	17266.6	18078.2	18605.0	19570.8	18318.0	13722.5
65°	13441.9	13405.5	13872.4	15746.1	18343.7	18896.2	19684.3	20041.9	20371.7	18018.2	12495.4
67.5°	14045.8	14118.6	14863.9	17189.5	20382.4	21076.2	21926.4	21590.2	20600.8	16598.4	10523.1
70°	14966.7	15013.8	16165.9	19080.4	23010.0	23847.3	24258.4	22140.5	19495.8	13902.3	7910.5
72.5°	15362.8	15570.5	17328.7	21065.5	25995.2	26507.0	25042.2	20913.5	16240.8	9443.8	4156.6
73°	15275.0	15523.4	17382.2	21367.5	26228.6	26766.1	24875.2	20281.8	15097.3	8133.3	3563.4
75°	14180.7	14487.0	16686.2	21114.8	25774.6	25453.4	22189.8	17285.9	10201.9	3698.3	1623.2
77.5°	11189.1	11276.9	13221.4	17050.3	20296.7	19701.4	16607.0	10803.7	4167.3	1374.8	920.8
80°	5612.8	5936.1	7452.3	9767.2	13572.6	13377.7	10482.4	5109.5	1736.7	807.3	610.3
82.5°	2700.4	2929.5	3629.8	4762.6	7499.4	7321.6	5190.9	2792.5	1102.9	471.1	359.8
85°	1738.9	1910.2	2310.6	2272.1	3083.7	2944.5	2332.0	2113.6	653.1	246.3	250.6
87.5°	1147.8	1257.0	1507.6	1205.6	1122.1	1015.1	1030.0	1190.7	128.5	94.2	34.3
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°	6662.1	6662.1	6662.1	6662.1	6662.1	6662.1	6662.1	6662.1	6662.1	6662.1	6662.1
2.5°	6589.3	6561.4	6469.3	6379.4	6293.7	6212.4	6158.8	6088.2	6041.1	6053.9	6073.2
5°	6424.4	6362.3	6199.5	6041.1	5891.2	5713.4	5569.9	5454.3	5366.5	5334.4	5327.9
7.5°	6250.9	6146.0	5912.6	5640.6	5385.8	5165.2	4910.4	4784.0	4636.3	4584.9	4567.7
10°	6146.0	6004.6	5677.0	5298.0	4914.6	4548.5	4272.2	4047.4	3843.9	3805.4	3786.1
12.5°	6116.0	5929.7	5488.6	5000.3	4490.6	4040.9	3631.9	3336.4	3139.4	3094.4	3028.0
15°	6098.9	5867.6	5313.0	4700.5	4053.8	3505.6	3075.1	2730.4	2550.5	2430.6	2432.7
17.5°	6083.9	5796.9	5115.9	4372.9	3676.9	3045.2	2569.8	2259.2	2094.3	2030.1	2023.7
20°	6062.5	5713.4	4888.9	4028.1	3246.5	2625.4	2195.0	1963.7	1852.4	1798.8	1796.7
22.5°	6053.9	5632.0	4666.2	3676.9	2865.3	2302.1	1946.6	1783.8	1713.2	1676.8	1676.8
25°	6075.3	5574.2	4432.8	3342.8	2526.9	2025.8	1775.3	1663.9	1623.2	1604.0	1597.5
27.5°	6141.7	5548.5	4201.5	3008.7	2216.4	1837.4	1659.6	1582.5	1552.6	1537.6	1539.7
30°	6268.0	5546.4	3974.5	2679.0	1985.1	1693.9	1567.5	1514.0	1490.5	1481.9	1479.7
32.5°	6471.5	5593.5	3751.8	2407.0	1790.3	1574.0	1481.9	1443.3	1432.6	1426.2	1424.1
35°	6816.3	5726.3	3531.3	2158.6	1640.4	1466.9	1400.5	1381.2	1366.3	1372.7	1374.8
37.5°	7281.0	5955.4	3321.4	1963.7	1526.9	1387.7	1332.0	1314.9	1306.3	1312.7	1319.1
40°	7904.1	6285.2	3145.8	1807.4	1445.5	1321.3	1272.0	1257.0	1248.5	1259.2	1261.3
42.5°	8591.5	6666.4	3000.2	1685.3	1379.1	1265.6	1218.5	1201.4	1194.9	1201.4	1203.5
45°	9298.2	7109.6	2925.2	1597.5	1323.4	1224.9	1175.7	1156.4	1141.4	1137.1	1143.5
47.5°	9994.2	7495.1	2923.1	1544.0	1278.5	1188.5	1135.0	1113.6	1094.3	1083.6	1081.4
50°	10561.7	7801.3	2974.5	1520.4	1239.9	1147.8	1094.3	1072.9	1047.2	1025.8	1030.0
52.5°	10990.0	8000.5	2998.0	1509.7	1218.5	1105.0	1051.5	1032.2	1002.2	974.4	974.4
55°	11266.2	8047.6	2940.2	1499.0	1201.4	1060.0	1002.2	985.1	955.1	927.3	927.3
57.5°	11360.4	7902.0	2732.5	1473.3	1184.2	1021.5	952.9	938.0	914.4	886.6	882.3
60°	11142.0	7409.4	2368.5	1396.2	1150.0	980.8	899.4	893.0	884.4	860.9	858.7
62.5°	10300.4	6364.4	1972.3	1295.6	1092.1	938.0	850.2	860.9	867.3	854.4	852.3
65°	8899.9	5167.3	1685.3	1156.4	1015.1	878.0	796.6	824.5	841.6	841.6	837.3
67.5°	7218.9	3968.1	1419.8	1036.5	918.7	796.6	736.7	758.1	770.9	766.6	777.3
70°	5130.9	2687.5	1156.4	899.4	796.6	704.5	659.6	659.6	651.0	646.7	646.7
72.5°	2488.4	1535.4	938.0	751.7	678.8	601.7	565.3	550.4	533.2	531.1	520.4
73°	2079.4	1377.0	895.1	723.8	651.0	586.8	546.1	522.5	511.8	503.2	501.1
75°	1265.6	1045.0	747.4	610.3	554.6	505.4	469.0	447.6	436.9	430.4	428.3
77.5°	833.0	779.5	580.3	466.8	424.0	394.0	379.0	357.6	351.2	342.6	342.6
80°	621.0	595.3	415.4	329.8	304.1	278.4	274.1	269.8	252.7	242.0	237.7
82.5°	400.5	424.0	282.7	220.6	192.7	171.3	173.5	179.9	162.8	147.8	143.5
85°	284.8	306.2	171.3	100.6	81.4	70.7	79.2	70.7	72.8	57.8	47.1
87.5°	47.1	81.4	30.0	12.8	6.4	4.3	0.0	0.0	0.0	0.0	0.0
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)