

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: P302871

Luminaire Tested: **GLNA-AF-09-LED-E1-T4W-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302871
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191569)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-09-LED-E1-T4W-7030-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 41153.5 lumens
Efficiency: N/A
Efficacy: 110.0 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G5

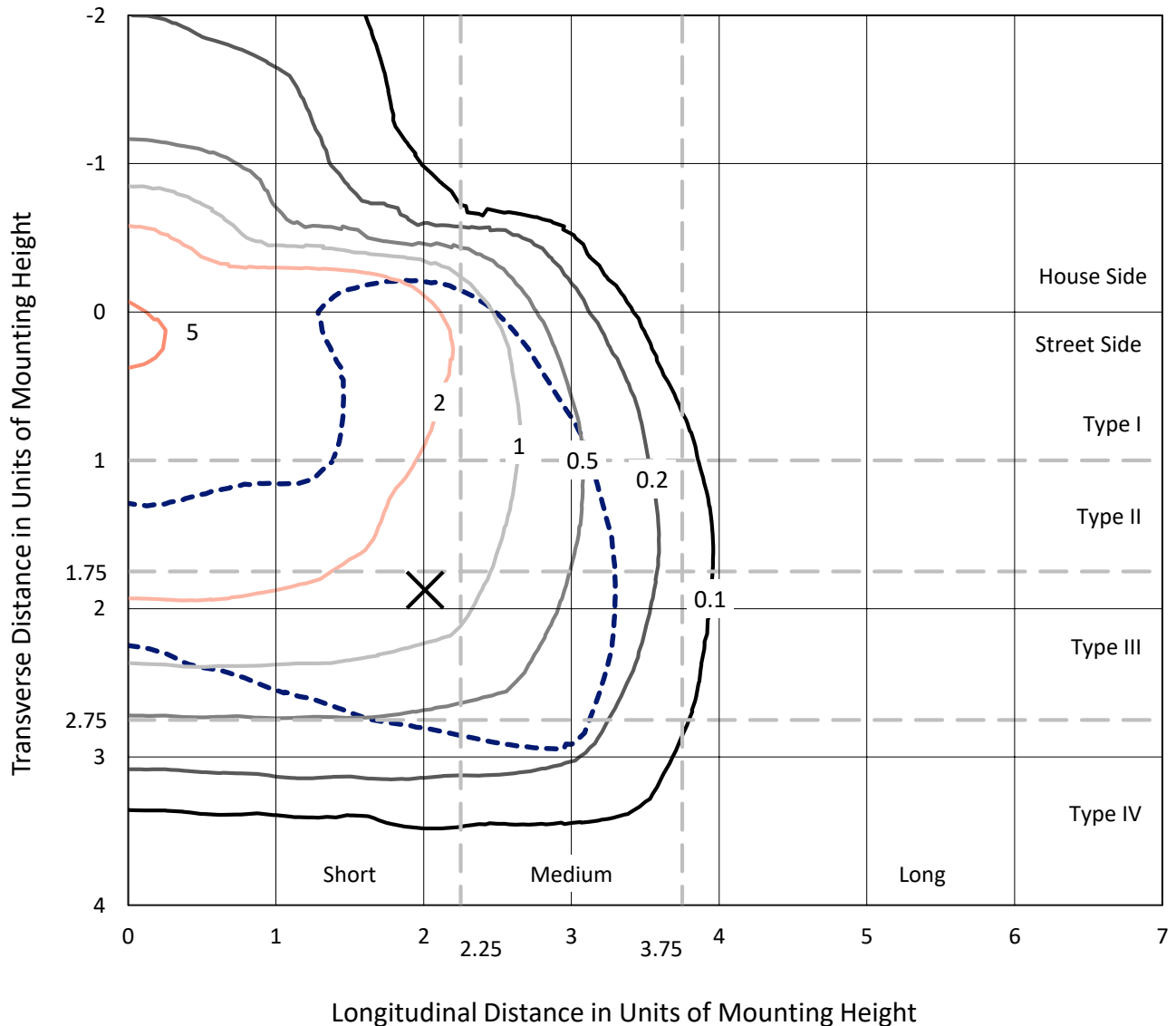
Input Watts (W): 374
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

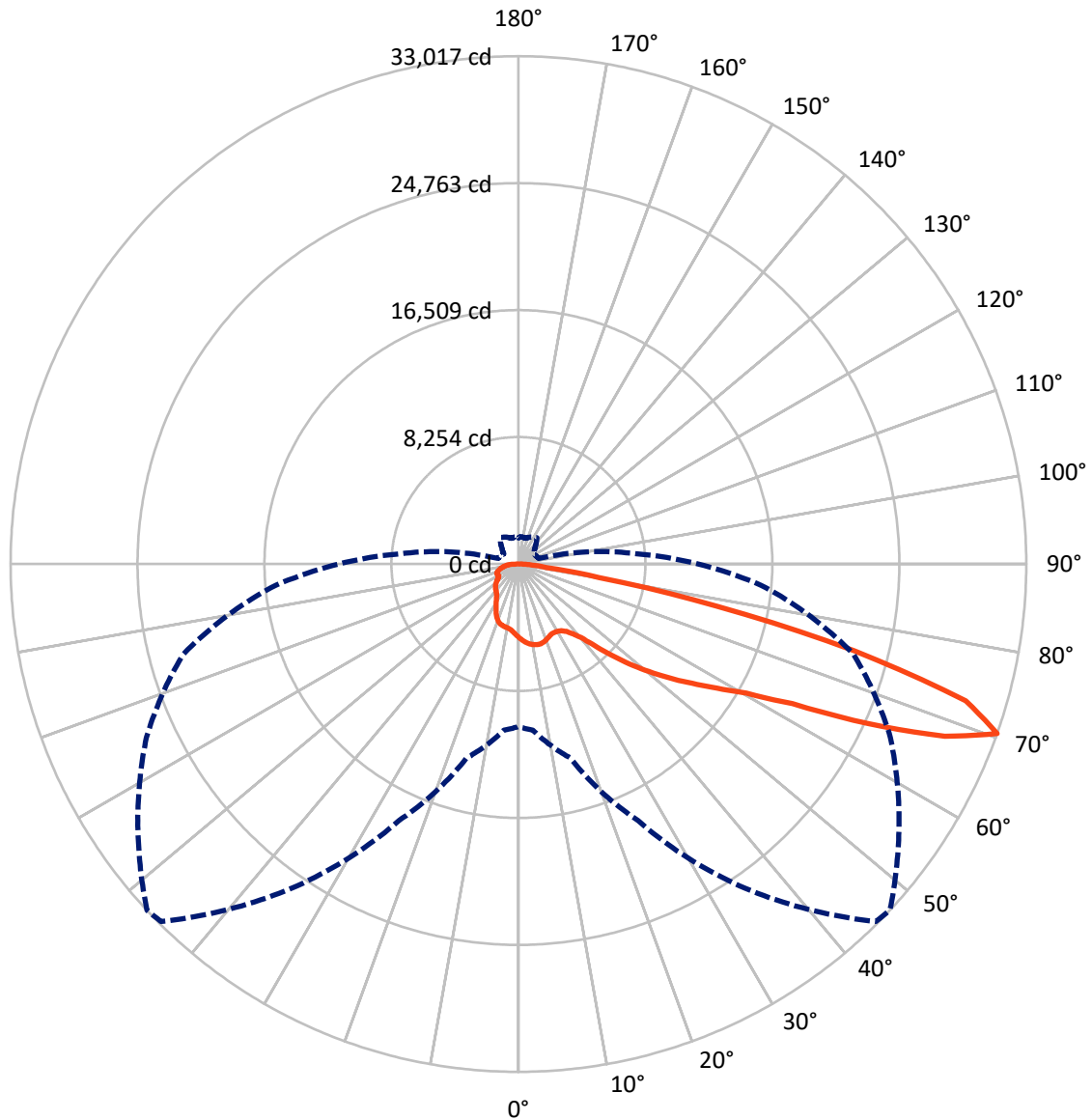
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.1 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8585.4	0.0	8585.4
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	32568.1	0.0	32568.1
	% Fixture	79.1	0.0	79.1
Total	Lumens	41153.5	0.0	41153.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	457.5	1.1
10°-20°	1342.3	3.3
20°-30°	1982.2	4.8
30°-40°	2881.1	7.0
40°-50°	5184.9	12.6
50°-60°	8982.4	21.8
60°-70°	12820.4	31.2
70°-80°	6581.3	16.0
80°-90°	921.4	2.2
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°	41153.5	100.0
0°-180°	41153.5	100.0

Coefficient of Utilization



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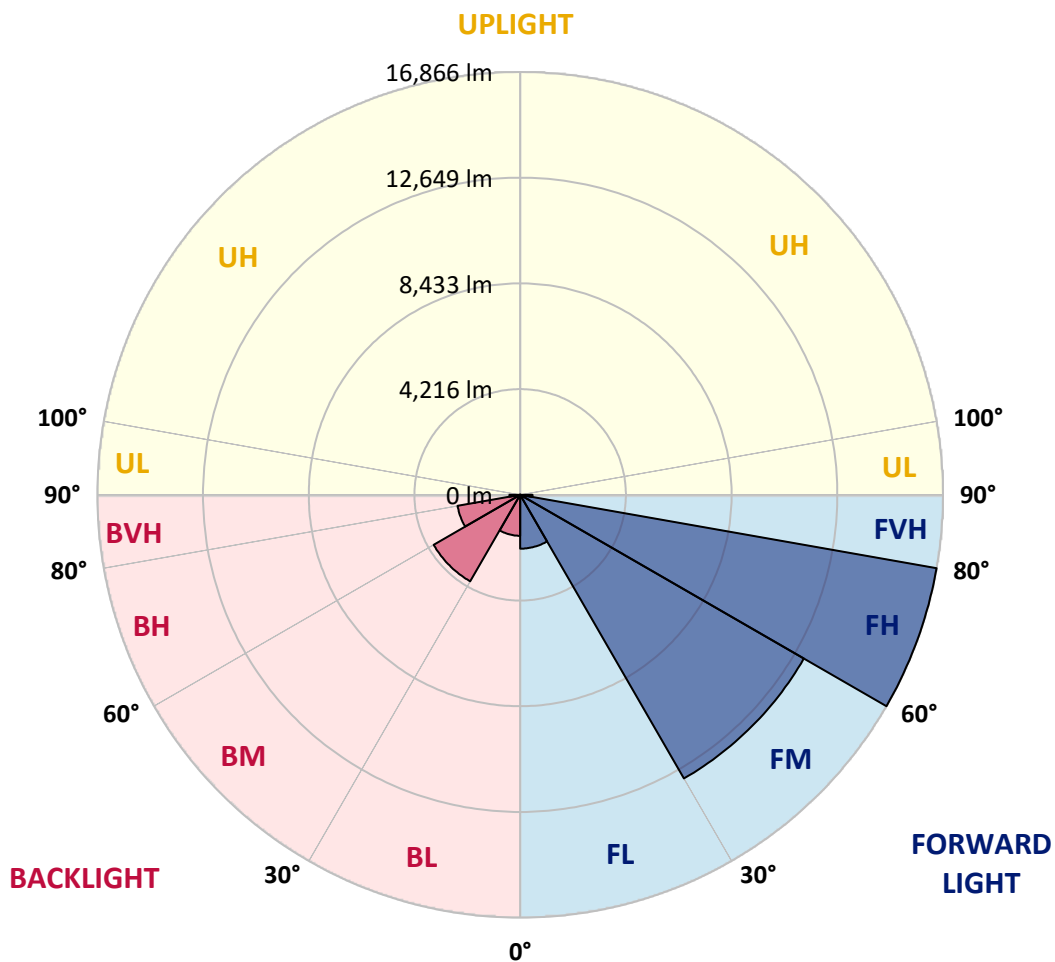
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2147.3	5.2			
FM	(30°-60°)	13063.3	31.7			
FH	(60°-80°)	16865.8	41.0			G5
FVH	(80°-90°)	491.7	1.2			G3/500
BL	(0°-30°)	1634.7	4.0	B3/2500		
BM	(30°-60°)	3985.1	9.7	B3/5000		
BH	(60°-80°)	2535.9	6.2	B4/5000		G4/5000
BVH	(80°-90°)	429.7	1.0			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	4775.0	4775.0	4775.0	4775.0	4775.0	4775.0	4775.0	4775.0	4775.0	4775.0	4775.0
2.5°	5055.6	5045.6	5041.6	5033.6	5023.7	4973.1	4963.2	4927.3	4877.4	4824.9	4771.0
5°	5388.1	5386.1	5363.5	5323.6	5259.7	5149.3	5123.4	5035.6	4917.3	4802.9	4689.2
7.5°	5680.0	5662.0	5620.1	5539.7	5428.0	5277.7	5241.8	5119.4	4957.2	4800.9	4646.6
10°	5894.1	5884.1	5792.4	5682.0	5535.7	5369.4	5327.6	5191.2	5013.0	4814.9	4622.7
12.5°	6016.4	5996.5	5890.1	5758.4	5584.2	5422.0	5379.4	5241.8	5041.6	4814.9	4588.8
15°	6008.5	5994.5	5888.1	5743.8	5568.3	5426.0	5388.1	5249.8	5035.6	4794.9	4544.9
17.5°	5848.2	5854.2	5764.4	5622.1	5477.8	5369.4	5335.5	5207.9	4995.1	4755.0	4493.0
20°	5568.3	5596.2	5535.7	5410.0	5329.5	5255.7	5233.8	5125.4	4933.2	4697.2	4436.5
22.5°	5287.7	5313.6	5289.7	5183.3	5171.3	5127.4	5115.4	5037.6	4879.4	4661.3	4402.6
25°	5081.5	5105.5	5101.5	5009.0	5045.6	5043.6	5033.6	4995.1	4867.4	4661.3	4408.6
27.5°	5025.7	5033.6	5025.7	4941.2	4991.1	5031.7	5023.7	5017.0	4903.3	4719.1	4485.1
30°	5217.8	5205.9	5143.4	4973.1	5019.7	5075.5	5067.6	5071.5	5011.0	4871.4	4655.3
32.5°	5984.5	5930.0	5733.8	5255.7	5133.4	5163.3	5167.3	5233.8	5243.8	5105.5	4919.3
35°	7131.6	7071.7	6817.0	6012.4	5487.8	5384.1	5384.1	5483.8	5543.7	5441.9	5329.5
37.5°	8347.1	8280.6	8144.9	7061.7	6232.5	5766.4	5756.4	5826.3	5912.0	5936.6	5964.6
40°	9728.2	9658.4	9696.3	8238.7	7271.9	6428.7	6286.4	6236.5	6468.6	6622.9	6847.6
42.5°	11240.3	11207.7	11221.6	9550.0	8454.8	7420.1	7218.0	6959.3	7239.9	7513.9	7984.7
45°	12639.3	12667.2	12653.3	10953.7	9772.7	8629.0	8414.9	7914.2	8188.8	8658.9	9426.3
47.5°	13864.8	13748.4	13928.6	12487.0	11248.2	9982.8	9718.2	9047.9	9325.9	9906.4	11203.7
50°	15352.3	15336.3	15072.3	14533.7	13031.6	11342.0	10995.6	10218.9	10651.1	11458.4	13444.6
52.5°	16916.2	16625.7	16383.6	16125.0	14924.1	12735.7	12310.8	11385.9	12209.1	13223.8	16175.5
55°	17236.1	17106.4	17406.3	17841.2	16748.0	14183.3	13688.6	12849.4	13963.2	15242.6	19324.7
57.5°	17921.0	17919.0	18540.0	19314.7	18625.8	15718.7	15220.0	14617.5	15934.8	17554.6	22668.0
60°	18383.8	18513.4	19667.1	21170.6	20469.7	17492.8	17033.9	16657.6	18177.6	20139.2	25783.3
62.5°	18625.8	18802.0	20376.0	21923.3	23076.3	20445.8	19987.6	19445.0	21144.6	22974.6	27605.3
65°	17619.1	17964.9	20265.6	22574.3	25359.1	25232.7	25026.6	24073.7	24854.4	25214.8	26947.0
67.5°	14831.6	15186.1	17865.1	21967.2	26988.9	29850.1	29894.0	28266.2	27137.1	25407.0	22656.1
70°	10567.3	10845.3	13062.2	18417.7	25747.4	32867.0	33017.3	30197.9	26682.3	22531.7	15829.1
72.5°	5017.0	5187.2	7285.8	11987.0	20431.8	30114.1	30404.7	27731.6	22688.0	16681.5	8635.0
75°	1843.9	1895.8	2462.3	5099.5	11850.7	22207.9	22550.3	19879.2	15039.8	8305.2	3289.5
77.5°	1105.1	1139.1	1381.8	2152.4	4661.3	12693.8	13199.9	10811.4	6573.0	3091.3	1617.8
80°	772.7	796.6	990.8	1339.2	2202.3	4837.5	5287.7	4412.6	2618.6	1956.3	1177.0
82.5°	522.6	534.6	696.9	905.0	1463.5	1727.5	1863.8	1962.3	1766.1	1455.6	746.7
85°	342.4	354.4	472.8	596.5	930.9	893.0	913.0	1155.0	1289.3	988.8	414.3
87.5°	196.2	204.1	284.6	318.5	456.8	378.4	382.3	608.4	825.2	666.9	252.0
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°	4775.0	4775.0	4775.0	4775.0	4775.0	4775.0	4775.0	4775.0	4775.0	4775.0	4775.0
2.5°	4757.0	4731.1	4673.2	4636.7	4602.8	4594.8	4580.8	4578.8	4576.8	4576.8	4570.8
5°	4650.6	4606.8	4517.0	4466.4	4424.6	4420.6	4418.6	4428.5	4432.5	4436.5	4430.5
7.5°	4582.8	4523.0	4410.6	4338.8	4288.9	4276.3	4296.9	4342.8	4372.7	4384.7	4378.7
10°	4540.9	4466.4	4336.8	4258.3	4216.4	4210.4	4236.4	4290.9	4352.7	4376.7	4374.7
12.5°	4493.0	4408.6	4270.3	4188.5	4164.6	4176.5	4210.4	4260.3	4324.8	4362.7	4364.7
15°	4444.5	4346.8	4204.5	4132.6	4122.7	4138.6	4170.5	4208.4	4258.3	4296.9	4300.9
17.5°	4386.7	4284.3	4142.6	4068.1	4060.2	4068.1	4070.1	4090.1	4122.7	4158.6	4168.6
20°	4324.8	4220.4	4072.1	3998.3	3962.4	3930.5	3893.9	3897.9	3907.9	3944.5	3952.4
22.5°	4280.3	4176.5	4018.3	3915.9	3820.1	3723.7	3651.9	3641.9	3645.9	3675.8	3685.8
25°	4284.3	4174.5	4004.3	3828.1	3618.0	3463.7	3367.3	3351.3	3349.3	3371.3	3385.9
27.5°	4362.7	4252.3	4056.2	3737.7	3397.9	3169.1	3067.4	3055.4	3039.5	3045.5	3061.4
30°	4536.9	4434.5	4182.5	3645.9	3159.2	2881.2	2774.8	2762.9	2740.9	2730.9	2742.9
32.5°	4820.9	4737.1	4366.7	3557.5	2921.1	2634.5	2526.8	2500.9	2486.9	2474.9	2484.9
35°	5293.6	5257.7	4612.7	3461.7	2711.0	2444.3	2346.6	2306.7	2286.8	2308.7	2324.7
37.5°	6034.4	6054.3	4935.2	3311.4	2548.7	2318.7	2236.2	2190.3	2160.4	2178.4	2196.3
40°	7083.7	7097.6	5291.6	3099.3	2408.4	2244.2	2156.4	2114.5	2072.0	2040.1	2038.1
42.5°	8460.8	8319.1	5642.1	2869.2	2246.2	2198.3	2100.6	2048.0	1984.2	1895.8	1877.8
45°	10094.6	9596.5	5908.1	2604.6	2064.0	2142.5	2038.1	1966.2	1865.8	1770.1	1760.1
47.5°	11977.0	10967.6	6038.4	2330.6	1893.8	2060.0	1962.3	1847.9	1721.5	1673.7	1667.7
50°	14275.1	12595.4	6100.2	2064.0	1746.2	1952.3	1851.9	1717.6	1611.8	1601.9	1595.9
52.5°	16892.3	14553.7	6120.8	1845.9	1623.8	1812.0	1762.1	1631.8	1547.3	1556.0	1556.0
55°	19631.2	16575.8	5848.2	1687.6	1511.4	1667.7	1701.6	1597.9	1527.4	1560.0	1571.9
57.5°	22145.4	18367.8	4991.1	1565.9	1405.7	1558.0	1679.7	1629.8	1581.9	1711.6	1719.6
60°	24075.7	19426.4	3727.7	1455.6	1327.2	1519.4	1738.2	1752.1	1764.1	2074.0	2116.5
62.5°	24480.0	19074.7	2562.7	1369.8	1291.3	1552.0	1843.9	1845.9	1831.9	2048.0	2074.0
65°	22624.1	16845.8	1863.8	1321.2	1261.4	1609.8	1934.3	1891.8	1800.0	1964.3	1915.7
67.5°	17966.9	12691.8	1552.0	1285.3	1217.5	1605.8	2030.1	1934.3	1782.1	1924.4	1845.9
70°	11662.5	7674.2	1381.8	1255.4	1165.0	1529.4	2085.9	1930.3	1729.5	1790.0	1697.6
72.5°	5689.9	3431.8	1267.4	1211.5	1111.1	1423.7	2083.9	1893.8	1675.7	1671.7	1621.8
75°	2226.2	1571.9	1163.0	1145.0	1019.4	1303.3	2028.1	1841.9	1611.8	1547.3	1529.4
77.5°	1303.3	1121.1	1031.3	1047.3	909.0	1182.9	1946.3	1752.1	1523.4	1447.6	1427.6
80°	948.9	839.2	879.1	905.0	776.7	1063.2	1835.9	1641.8	1425.6	1463.5	1435.6
82.5°	608.4	540.6	712.8	738.8	647.0	940.9	1715.6	1525.4	1287.3	1169.0	1141.0
85°	310.5	342.4	530.6	562.5	498.7	772.7	1569.9	1371.8	1131.1	972.8	988.8
87.5°	174.2	234.1	338.5	378.4	352.4	594.5	1273.4	1131.1	922.9	750.7	661.0
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)