

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: P302801

Luminaire Tested: **GLNA-AF-07-LED-E1-T4W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302801
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-07-LED-E1-T4W
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 41666.9 lumens
Efficiency: N/A
Efficacy: 106.6 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G5

Input Watts (W): 391
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

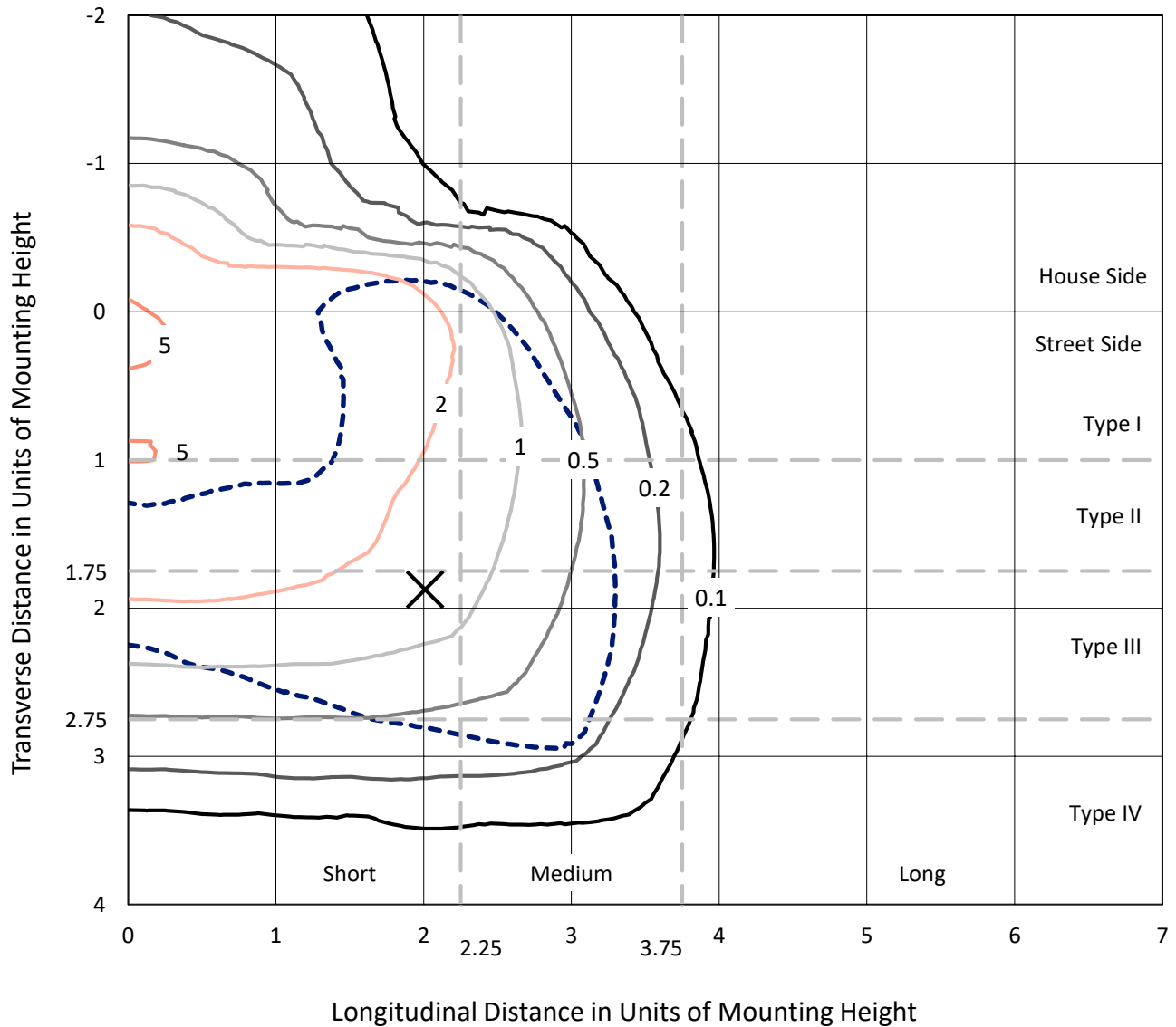


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

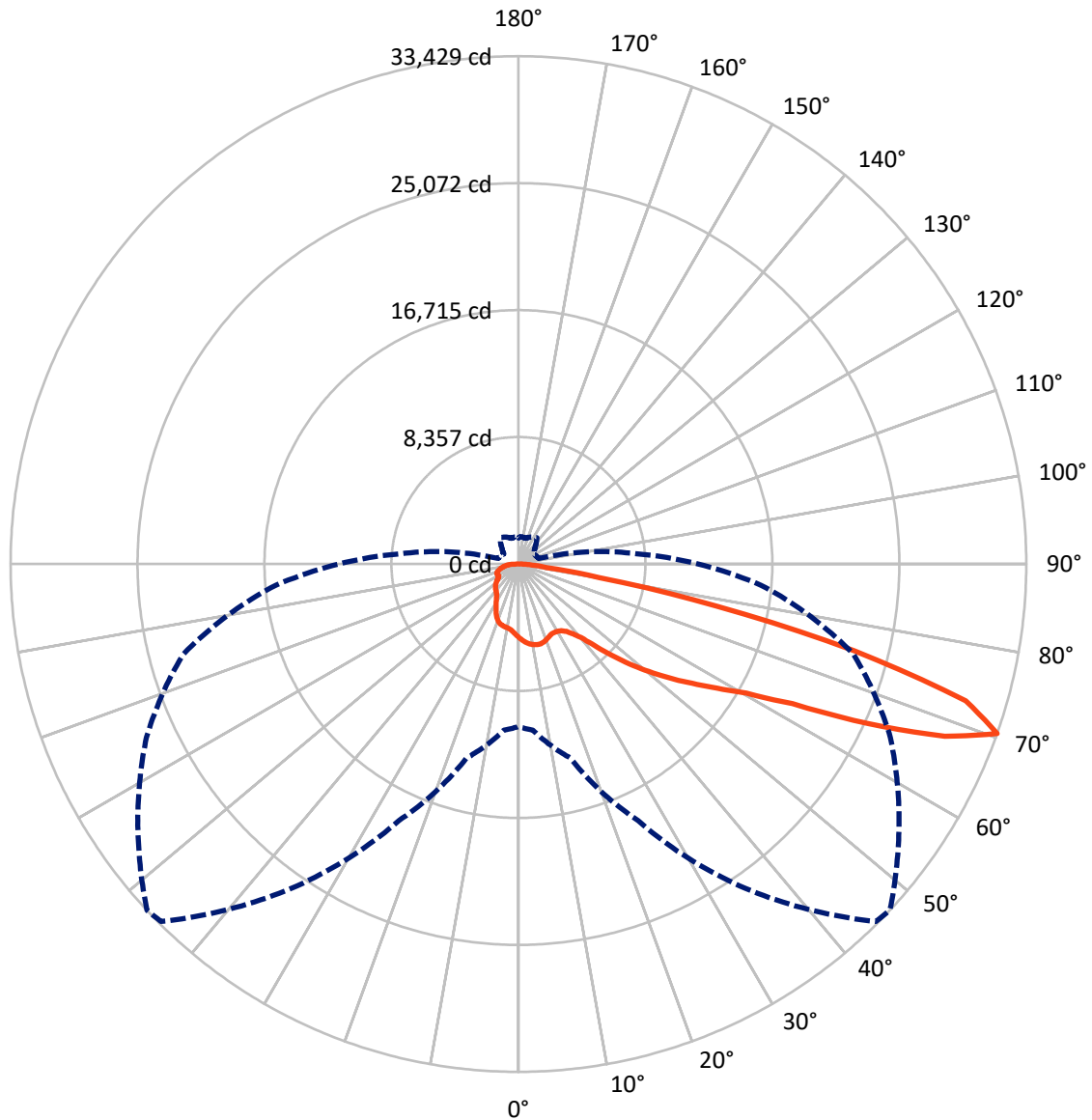


Based on 30 foot mounting height. Maximum calculated value = 6.2 fc
 Type IV - Short - Semi-Cutoff

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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	8692.5	0.0	8692.5
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	32974.4	0.0	32974.4
	% Fixture	79.1	0.0	79.1
Total	Lumens	41666.9	0.0	41666.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	463.2	1.1
10°-20°	1359.0	3.3
20°-30°	2006.9	4.8
30°-40°	2917.0	7.0
40°-50°	5249.6	12.6
50°-60°	9094.4	21.8
60°-70°	12980.4	31.2
70°-80°	6663.4	16.0
80°-90°	932.9	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°	41666.9	100.0
0°-180°	41666.9	100.0

Coefficient of Utilization



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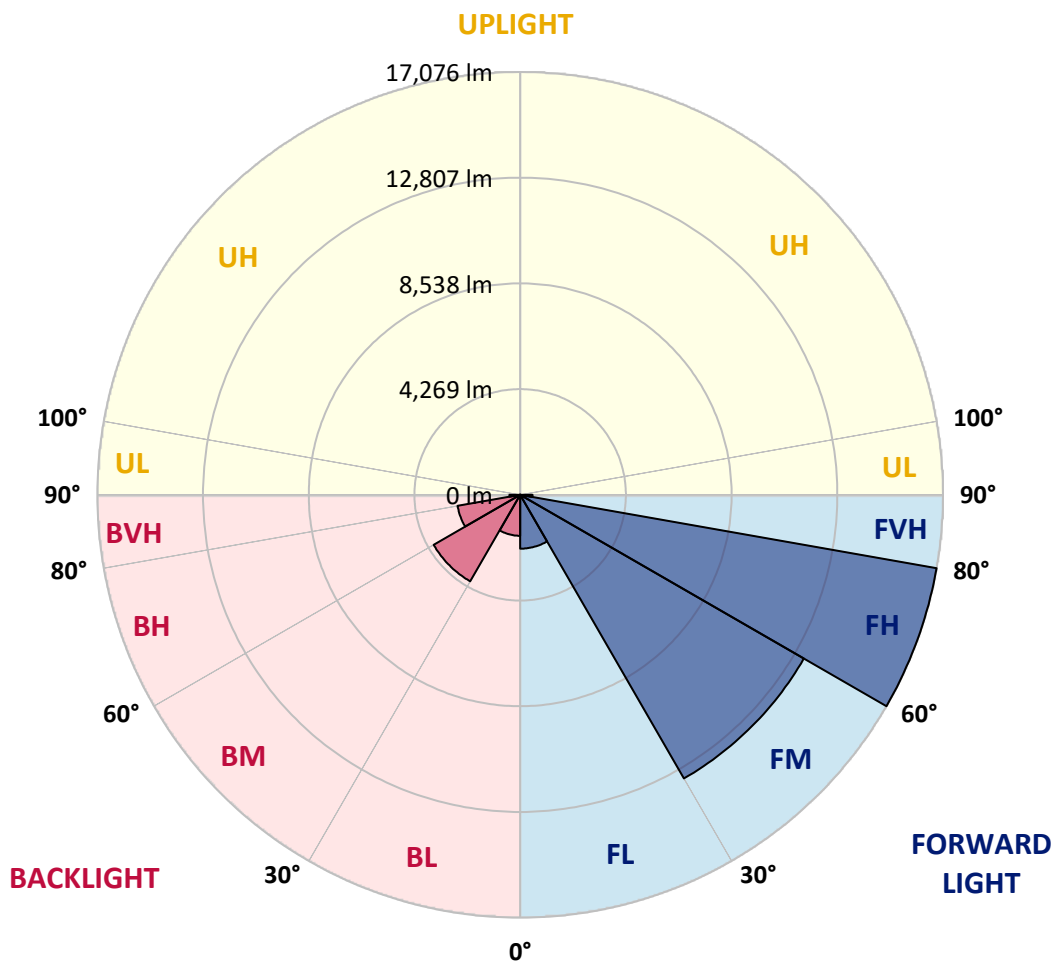
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2174.1	5.2			
FM (30°-60°)	13226.2	31.7			
FH (60°-80°)	17076.2	41.0			G5
FVH (80°-90°)	497.8	1.2			G3/500
BL (0°-30°)	1655.1	4.0	B3/2500		
BM (30°-60°)	4034.8	9.7	B3/5000		
BH (60°-80°)	2567.5	6.2	B4/5000		G4/5000
BVH (80°-90°)	435.1	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°	4834.6	4834.6	4834.6	4834.6	4834.6	4834.6	4834.6	4834.6	4834.6	4834.6	4834.6
2.5°	5118.7	5108.6	5104.5	5096.4	5086.3	5035.2	5025.1	4988.7	4938.2	4885.0	4830.5
5°	5455.3	5453.3	5430.4	5390.0	5325.3	5213.6	5187.3	5098.5	4978.6	4862.8	4747.7
7.5°	5750.8	5732.7	5690.2	5608.8	5495.7	5343.5	5307.2	5183.3	5019.0	4860.8	4704.6
10°	5967.6	5957.5	5864.6	5752.9	5604.7	5436.4	5394.0	5256.0	5075.6	4874.9	4680.4
12.5°	6091.5	6071.3	5963.6	5830.3	5653.9	5489.6	5446.5	5307.2	5104.5	4874.9	4646.0
15°	6083.4	6069.3	5961.6	5815.5	5637.7	5493.7	5455.3	5315.2	5098.5	4854.7	4601.6
17.5°	5921.2	5927.2	5836.3	5692.3	5546.2	5436.4	5402.1	5272.8	5057.4	4814.4	4549.1
20°	5637.7	5666.0	5604.7	5477.5	5396.0	5321.3	5299.1	5189.3	4994.8	4755.8	4491.9
22.5°	5353.6	5379.9	5355.6	5247.9	5235.8	5191.4	5179.3	5100.5	4940.2	4719.4	4457.5
25°	5144.9	5169.2	5165.1	5071.5	5108.6	5106.5	5096.4	5057.4	4928.1	4719.4	4463.6
27.5°	5088.4	5096.4	5088.4	5002.9	5053.4	5094.4	5086.3	5079.6	4964.5	4778.0	4541.0
30°	5282.9	5270.8	5207.5	5035.2	5082.3	5138.9	5130.8	5134.8	5073.6	4932.2	4713.4
32.5°	6059.2	6004.0	5805.4	5321.3	5197.4	5227.7	5231.8	5299.1	5309.2	5169.2	4980.6
35°	7220.5	7159.9	6902.1	6087.5	5556.3	5451.2	5451.2	5552.2	5612.8	5509.8	5396.0
37.5°	8451.2	8383.9	8246.5	7149.8	6310.3	5838.4	5828.3	5898.9	5985.8	6010.7	6039.0
40°	9849.5	9778.8	9817.2	8341.5	7362.6	6508.9	6364.8	6314.3	6549.3	6705.5	6933.0
42.5°	11380.5	11347.5	11361.6	9669.1	8560.3	7512.7	7308.0	7046.2	7330.3	7607.6	8084.3
45°	12797.0	12825.3	12811.1	11090.3	9894.6	8736.7	8519.9	8012.9	8291.0	8767.0	9543.9
47.5°	14037.8	13920.0	14102.4	12642.8	11388.6	10107.4	9839.4	9160.8	9442.2	10030.0	11343.5
50°	15543.8	15527.7	15260.4	14715.0	13194.2	11483.5	11132.7	10346.4	10784.0	11601.3	13612.3
52.5°	17127.3	16833.1	16588.0	16326.1	15110.2	12894.6	12464.4	11527.9	12361.4	13388.8	16377.3
55°	17451.1	17319.8	17623.5	18063.8	16956.9	14360.3	13859.4	13009.7	14137.4	15432.7	19565.8
57.5°	18144.5	18142.5	18771.3	19555.7	18858.2	15914.8	15409.8	14799.9	16133.6	17773.6	22950.8
60°	18613.1	18744.4	19912.5	21434.7	20725.1	17711.0	17246.4	16865.4	18404.4	20390.5	26105.0
62.5°	18858.2	19036.6	20630.2	22196.8	23364.2	20700.8	20237.0	19687.6	21408.4	23261.2	27949.6
65°	17838.9	18189.0	20518.4	22855.9	25675.4	25547.5	25338.8	24374.1	25164.4	25529.3	27283.1
67.5°	15016.7	15375.5	18088.0	22241.2	27325.5	30222.5	30266.9	28618.8	27475.7	25723.9	22938.7
70°	10699.2	10980.6	13225.2	18647.5	26068.6	33277.0	33429.2	30574.6	27015.2	22812.8	16026.5
72.5°	5079.6	5252.0	7376.7	12136.5	20686.7	30489.8	30784.0	28077.6	22971.0	16889.6	8742.7
75°	1866.9	1919.4	2493.0	5163.1	11998.5	22484.9	22831.7	20127.2	15227.4	8408.8	3330.5
77.5°	1118.9	1153.3	1399.0	2179.3	4719.4	12852.2	13364.5	10946.2	6655.0	3129.9	1638.0
80°	782.3	806.5	1003.1	1355.9	2229.8	4897.8	5353.6	4467.6	2651.2	1980.7	1191.6
82.5°	529.2	541.3	705.6	916.3	1481.8	1749.1	1887.1	1986.7	1788.1	1473.7	756.1
85°	346.7	358.8	478.7	603.9	942.5	904.2	924.4	1169.4	1305.4	1001.1	419.4
87.5°	198.6	206.7	288.1	322.5	462.5	383.1	387.1	616.0	835.5	675.3	255.2
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°	4834.6	4834.6	4834.6	4834.6	4834.6	4834.6	4834.6	4834.6	4834.6	4834.6	4834.6
2.5°	4816.4	4790.1	4731.5	4694.5	4660.2	4652.1	4638.0	4635.9	4633.9	4633.9	4627.9
5°	4708.7	4664.2	4573.3	4522.2	4479.8	4475.7	4473.7	4483.8	4487.8	4491.9	4485.8
7.5°	4640.0	4579.4	4465.6	4392.9	4342.4	4329.6	4350.5	4396.9	4427.2	4439.4	4433.3
10°	4597.6	4522.2	4390.9	4311.4	4269.0	4263.0	4289.2	4344.4	4407.0	4431.3	4429.3
12.5°	4549.1	4463.6	4323.6	4240.8	4216.5	4228.6	4263.0	4313.5	4378.8	4417.1	4419.2
15°	4499.9	4401.0	4256.9	4184.2	4174.1	4190.3	4222.6	4260.9	4311.4	4350.5	4354.5
17.5°	4441.4	4337.7	4194.3	4118.9	4110.8	4118.9	4120.9	4141.1	4174.1	4210.5	4220.6
20°	4378.8	4273.1	4122.9	4048.2	4011.8	3979.5	3942.5	3946.5	3956.6	3993.7	4001.8
22.5°	4333.7	4228.6	4068.4	3964.7	3867.8	3770.2	3697.4	3687.3	3691.4	3721.7	3731.8
25°	4337.7	4226.6	4054.3	3875.9	3663.1	3506.9	3409.3	3393.1	3391.1	3413.3	3428.1
27.5°	4417.1	4305.4	4106.8	3784.3	3440.3	3208.7	3105.7	3093.5	3077.4	3083.4	3099.6
30°	4593.5	4489.9	4234.7	3691.4	3198.6	2917.2	2809.4	2797.3	2775.1	2765.0	2777.1
32.5°	4881.0	4796.2	4421.2	3601.8	2957.6	2667.4	2558.3	2532.1	2517.9	2505.8	2515.9
35°	5359.7	5323.3	4670.3	3504.9	2744.8	2474.8	2375.9	2335.5	2315.3	2337.5	2353.7
37.5°	6109.7	6129.9	4996.8	3352.7	2580.5	2347.6	2264.1	2217.7	2187.4	2205.5	2223.7
40°	7172.0	7186.2	5357.7	3138.0	2438.5	2272.2	2183.3	2140.9	2097.8	2065.5	2063.5
42.5°	8566.3	8422.9	5712.5	2905.0	2274.2	2225.7	2126.8	2073.6	2009.0	1919.4	1901.2
45°	10220.5	9716.2	5981.8	2637.1	2089.7	2169.2	2063.5	1990.8	1889.1	1792.2	1782.1
47.5°	12126.4	11104.5	6113.7	2359.7	1917.4	2085.7	1986.7	1870.9	1743.0	1694.6	1688.5
50°	14453.2	12752.5	6176.3	2089.7	1767.9	1976.6	1875.0	1739.0	1631.9	1621.8	1615.8
52.5°	17103.0	14735.2	6197.2	1868.9	1644.1	1834.6	1784.1	1652.1	1566.6	1575.4	1575.4
55°	19876.1	16782.6	5921.2	1708.7	1530.3	1688.5	1722.8	1617.8	1546.4	1579.4	1591.5
57.5°	22421.7	18597.0	5053.4	1585.5	1423.2	1577.4	1700.6	1650.1	1601.6	1732.9	1741.0
60°	24376.1	19668.8	3774.2	1473.7	1343.8	1538.4	1759.9	1774.0	1786.1	2099.8	2142.9
62.5°	24785.4	19312.6	2594.7	1386.9	1307.4	1571.3	1866.9	1868.9	1854.8	2073.6	2099.8
65°	22906.4	17055.9	1887.1	1337.7	1277.1	1629.9	1958.5	1915.4	1822.5	1988.8	1939.6
67.5°	18191.0	12850.2	1571.3	1301.4	1232.7	1625.9	2055.4	1958.5	1804.3	1948.4	1868.9
70°	11808.0	7769.9	1399.0	1271.1	1179.5	1548.5	2112.0	1954.4	1751.1	1812.4	1718.8
72.5°	5760.9	3474.6	1283.2	1226.6	1125.0	1441.4	2109.9	1917.4	1696.6	1692.5	1642.0
75°	2254.0	1591.5	1177.5	1159.3	1032.1	1319.6	2053.4	1864.9	1631.9	1566.6	1548.5
77.5°	1319.6	1135.1	1044.2	1060.4	920.3	1197.7	1970.6	1774.0	1542.4	1465.6	1445.5
80°	960.7	849.6	890.0	916.3	786.3	1076.5	1858.8	1662.2	1443.4	1481.8	1453.5
82.5°	616.0	547.3	721.7	748.0	655.1	952.6	1737.0	1544.4	1303.4	1183.6	1155.3
85°	314.4	346.7	537.2	569.6	504.9	782.3	1589.5	1388.9	1145.2	985.0	1001.1
87.5°	176.4	237.0	342.7	383.1	356.8	601.9	1289.3	1145.2	934.5	760.1	669.2
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)