

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: P302876

Luminaire Tested: **GLNA-AF-10-LED-E1-T4W-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302876
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-10-LED-E1-T4W-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 40926.5 lumens
Efficiency: N/A
Efficacy: 97.7 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

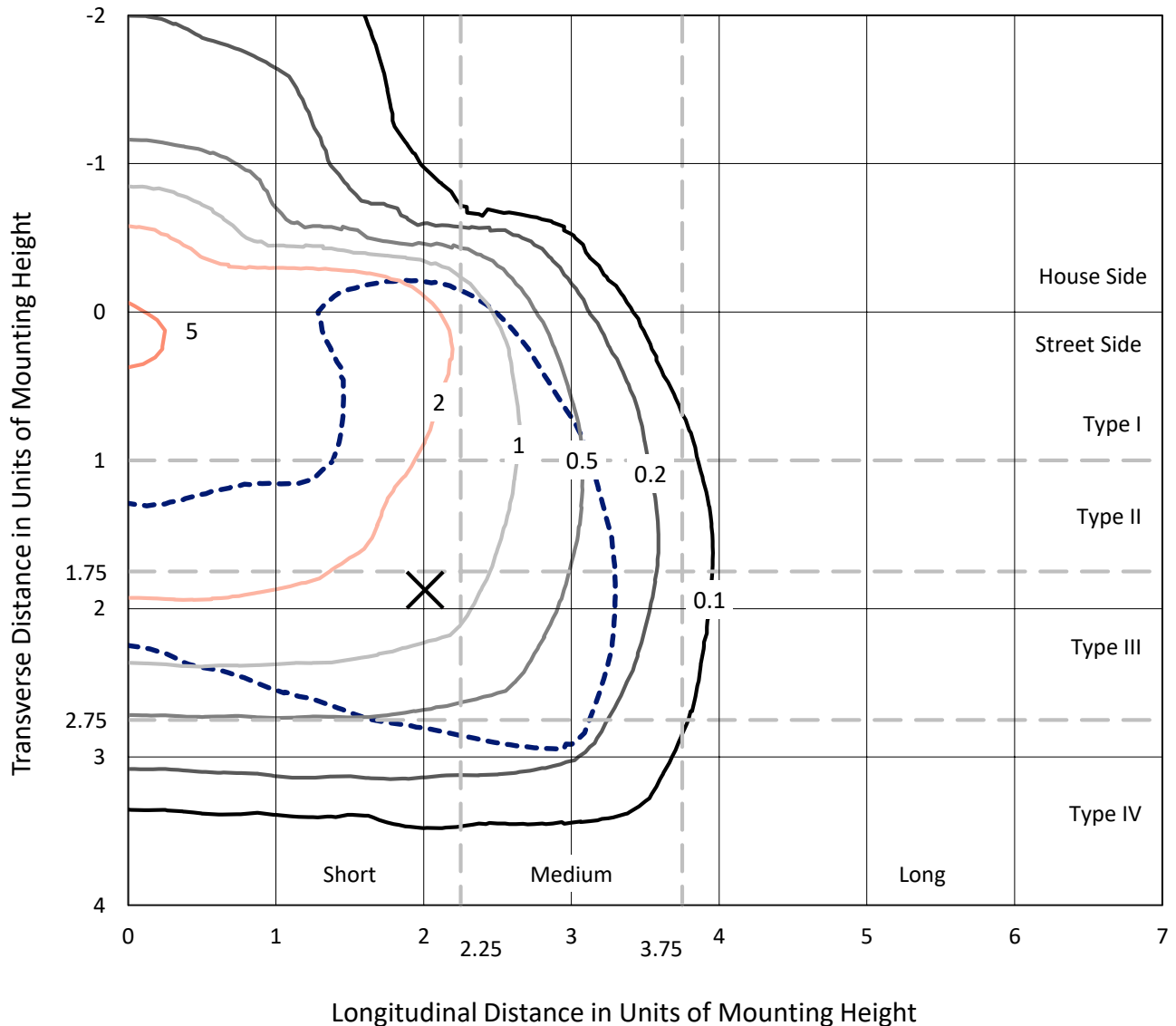
Input Watts (W): 419
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

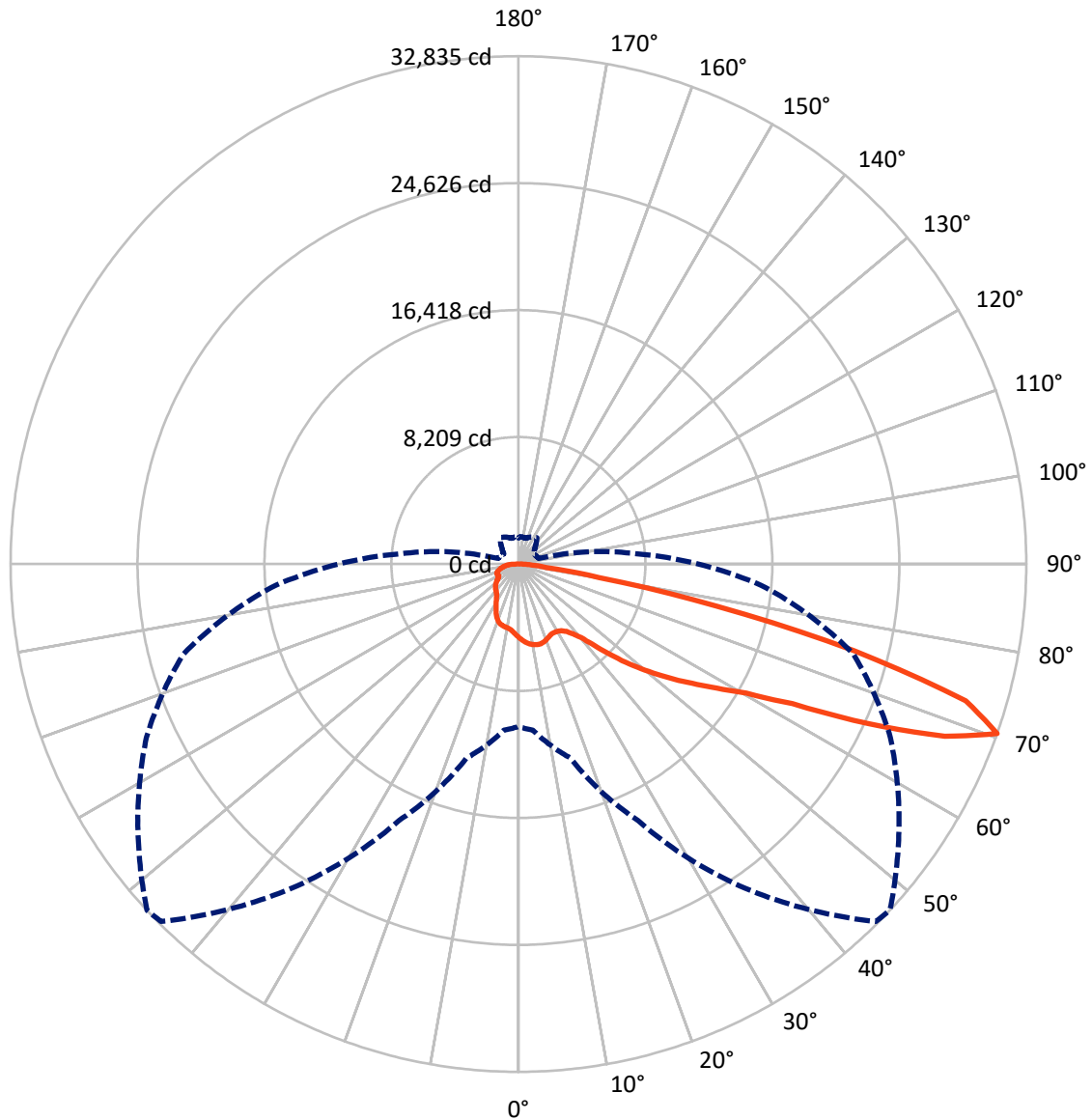
✕ Max cd
 - - - 1/2 Max cd



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	8538.1	0.0	8538.1
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	32388.4	0.0	32388.4
	% Fixture	79.1	0.0	79.1
Total	Lumens	40926.5	0.0	40926.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	455.0	1.1
10°-20°	1334.9	3.3
20°-30°	1971.3	4.8
30°-40°	2865.2	7.0
40°-50°	5156.3	12.6
50°-60°	8932.8	21.8
60°-70°	12749.7	31.2
70°-80°	6545.0	16.0
80°-90°	916.3	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°	40926.5	100.0
0°-180°	40926.5	100.0



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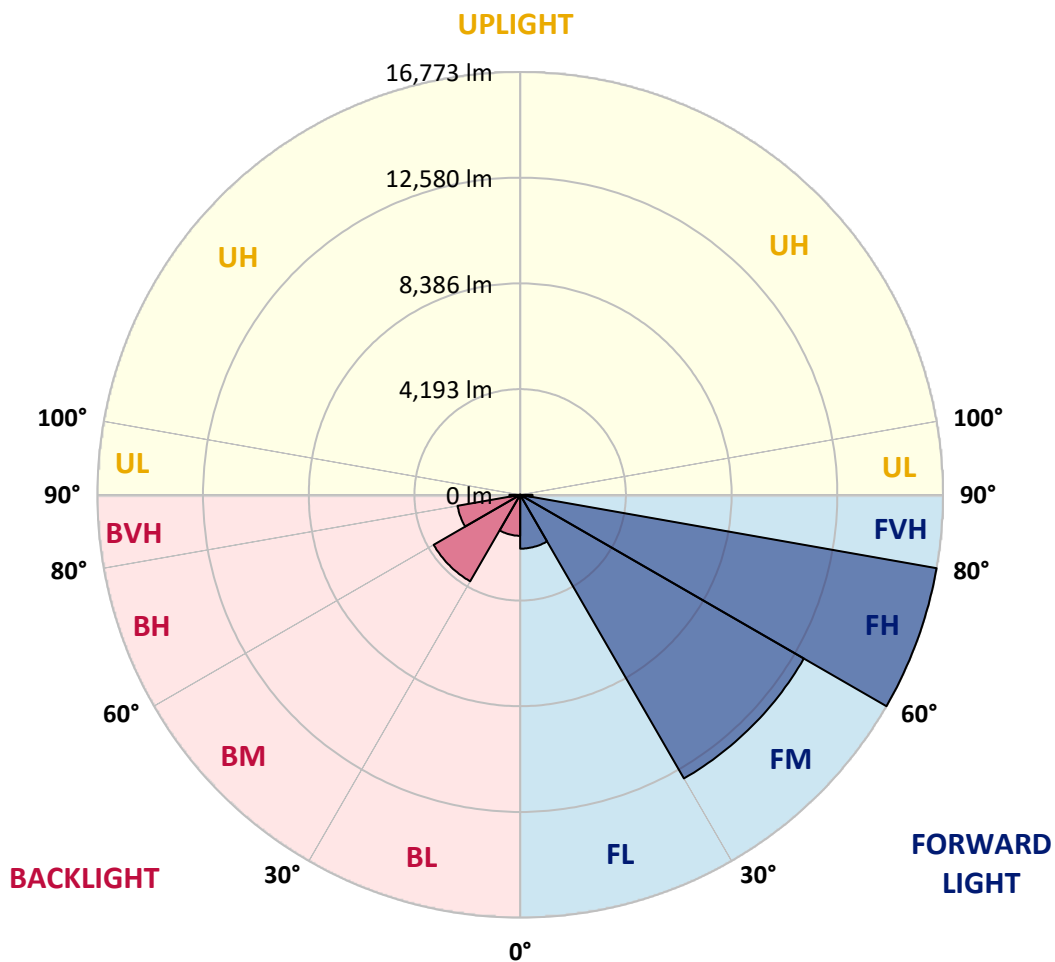
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2135.5	5.2			
FM	(30°-60°)	12991.2	31.7			
FH	(60°-80°)	16772.8	41.0			G5
FVH	(80°-90°)	489.0	1.2			G3/500
BL	(0°-30°)	1625.7	4.0	B3/2500		
BM	(30°-60°)	3963.1	9.7	B3/5000		
BH	(60°-80°)	2521.9	6.2	B4/5000		G4/5000
BVH	(80°-90°)	427.4	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°	4748.6	4748.6	4748.6	4748.6	4748.6	4748.6	4748.6	4748.6	4748.6	4748.6	4748.6
2.5°	5027.7	5017.8	5013.8	5005.9	4996.0	4945.7	4935.8	4900.1	4850.5	4798.2	4744.7
5°	5358.3	5356.4	5333.9	5294.2	5230.7	5120.9	5095.2	5007.9	4890.2	4776.4	4663.3
7.5°	5648.6	5630.8	5589.1	5509.1	5398.0	5248.6	5212.9	5091.2	4929.8	4774.4	4621.0
10°	5861.6	5851.7	5760.4	5650.6	5505.1	5339.8	5298.2	5162.6	4985.4	4788.3	4597.2
12.5°	5983.2	5963.4	5857.6	5726.7	5553.4	5392.1	5349.7	5212.9	5013.8	4788.3	4563.5
15°	5975.3	5961.4	5855.6	5712.1	5537.5	5396.0	5358.3	5220.8	5007.9	4768.5	4519.8
17.5°	5815.9	5821.9	5732.6	5591.1	5447.6	5339.8	5306.1	5179.1	4967.5	4728.8	4468.3
20°	5537.5	5565.3	5505.1	5380.2	5300.1	5226.7	5204.9	5097.1	4906.0	4671.3	4412.1
22.5°	5258.5	5284.3	5260.5	5154.7	5142.8	5099.1	5087.2	5009.8	4852.5	4635.6	4378.3
25°	5053.5	5077.3	5073.3	4981.4	5017.8	5015.8	5005.9	4967.5	4840.6	4635.6	4384.3
27.5°	4997.9	5005.9	4997.9	4914.0	4963.6	5003.9	4996.0	4989.3	4876.3	4693.1	4460.3
30°	5189.1	5177.2	5115.0	4945.7	4992.0	5047.5	5039.6	5043.6	4983.4	4844.5	4629.6
32.5°	5951.5	5897.3	5702.2	5226.7	5105.1	5134.8	5138.8	5204.9	5214.8	5077.3	4892.1
35°	7092.2	7032.7	6779.4	5979.3	5457.5	5354.4	5354.4	5453.6	5513.1	5411.9	5300.1
37.5°	8301.0	8234.9	8100.0	7022.8	6198.2	5734.6	5724.7	5794.1	5879.4	5903.9	5931.7
40°	9674.5	9605.1	9642.8	8193.2	7231.7	6393.2	6251.7	6202.1	6432.9	6586.3	6809.8
42.5°	11178.3	11145.9	11159.7	9497.3	8408.2	7379.2	7178.2	6920.9	7200.0	7472.4	7940.6
45°	12569.6	12597.4	12583.5	10893.2	9718.8	8581.4	8368.5	7870.5	8143.6	8611.2	9374.3
47.5°	13788.3	13672.6	13851.8	12418.2	11186.2	9927.8	9664.6	8998.0	9274.4	9851.7	11141.9
50°	15267.6	15251.7	14989.2	14453.6	12959.7	11279.4	10934.9	10162.5	10592.4	11395.2	13370.4
52.5°	16822.9	16534.0	16293.2	16036.0	14841.7	12665.5	12242.9	11323.1	12141.7	13150.8	16086.3
55°	17141.0	17012.1	17310.3	17742.8	16655.6	14105.1	13613.1	12778.5	13886.2	15158.5	19218.1
57.5°	17822.1	17820.1	18437.8	19208.2	18523.1	15632.0	15136.0	14536.9	15846.9	17457.8	22543.0
60°	18282.4	18411.3	19558.6	21053.8	20356.8	17396.3	16940.0	16565.7	18077.4	20028.1	25641.1
62.5°	18523.1	18698.3	20263.6	21802.4	22949.0	20333.0	19877.4	19337.8	21028.0	22847.8	27453.0
65°	17521.9	17865.8	20153.8	22449.7	25219.2	25093.5	24888.5	23940.9	24717.3	25075.7	26798.3
67.5°	14749.8	15102.3	17766.6	21846.0	26840.0	29685.5	29729.1	28110.3	26987.4	25266.8	22531.1
70°	10509.0	10785.5	12990.2	18316.1	25605.4	32685.7	32835.1	30031.3	26535.1	22407.4	15741.7
72.5°	4989.3	5158.6	7245.6	11920.9	20319.1	29948.0	30237.0	27578.6	22562.8	16589.5	8587.4
75°	1833.7	1885.3	2448.7	5071.3	11785.3	22085.4	22425.9	19769.6	14956.8	8259.4	3271.3
77.5°	1099.0	1132.8	1374.1	2140.6	4635.6	12623.8	13127.0	10751.7	6536.7	3074.3	1608.9
80°	768.4	792.2	985.3	1331.8	2190.2	4810.8	5258.5	4388.2	2604.1	1945.5	1170.5
82.5°	519.8	531.7	693.0	900.0	1455.5	1718.0	1853.6	1951.4	1756.4	1447.5	742.6
85°	340.6	352.5	470.2	593.2	925.8	888.1	907.9	1148.6	1282.2	983.3	412.0
87.5°	195.1	203.0	283.0	316.8	454.3	376.3	380.2	605.1	820.6	663.3	250.6
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°	4748.6	4748.6	4748.6	4748.6	4748.6	4748.6	4748.6	4748.6	4748.6	4748.6	4748.6
2.5°	4730.8	4705.0	4647.5	4611.1	4577.4	4569.4	4555.5	4553.6	4551.6	4551.6	4545.6
5°	4625.0	4581.3	4492.1	4441.8	4400.1	4396.2	4394.2	4404.1	4408.1	4412.1	4406.1
7.5°	4557.5	4498.0	4386.3	4314.8	4265.2	4252.7	4273.2	4318.8	4348.6	4360.5	4354.5
10°	4515.9	4441.8	4312.9	4234.8	4193.2	4187.2	4213.0	4267.2	4328.7	4352.5	4350.6
12.5°	4468.3	4384.3	4246.7	4165.4	4141.6	4153.5	4187.2	4236.8	4301.0	4338.6	4340.6
15°	4420.0	4322.8	4181.3	4109.8	4099.9	4115.8	4147.5	4185.2	4234.8	4273.2	4277.2
17.5°	4362.5	4260.6	4119.8	4045.7	4037.8	4045.7	4047.7	4067.5	4099.9	4135.6	4145.6
20°	4301.0	4197.1	4049.7	3976.3	3940.6	3908.8	3872.4	3876.4	3886.3	3922.7	3930.6
22.5°	4256.7	4153.5	3996.1	3894.3	3799.0	3703.2	3631.7	3621.8	3625.8	3655.5	3665.5
25°	4260.6	4151.5	3982.2	3807.0	3598.0	3444.6	3348.7	3332.8	3330.9	3352.7	3367.2
27.5°	4338.6	4228.9	4033.8	3717.0	3379.1	3151.7	3050.5	3038.6	3022.7	3028.7	3044.5
30°	4511.9	4410.1	4159.4	3625.8	3141.7	2865.3	2759.5	2747.6	2725.8	2715.9	2727.8
32.5°	4794.3	4710.9	4342.6	3537.8	2905.0	2620.0	2512.9	2487.1	2473.2	2461.3	2471.2
35°	5264.4	5228.7	4587.3	3442.6	2696.0	2430.9	2333.7	2294.0	2274.1	2296.0	2311.8
37.5°	6001.1	6020.9	4908.0	3293.2	2534.7	2305.9	2223.9	2178.3	2148.5	2166.3	2184.2
40°	7044.6	7058.5	5262.5	3082.2	2395.2	2231.8	2144.5	2102.9	2060.5	2028.8	2026.8
42.5°	8414.1	8273.3	5610.9	2853.4	2233.8	2186.2	2089.0	2036.7	1973.3	1885.3	1867.5
45°	10038.9	9543.6	5875.5	2590.2	2052.6	2130.6	2026.8	1955.4	1855.5	1760.3	1750.4
47.5°	11911.0	10907.1	6005.1	2317.8	1883.3	2048.6	1951.4	1837.7	1712.1	1664.4	1658.5
50°	14196.3	12525.9	6066.6	2052.6	1736.5	1941.5	1841.7	1708.1	1602.9	1593.0	1587.1
52.5°	16799.1	14473.4	6087.1	1835.7	1614.8	1802.0	1752.4	1622.8	1538.8	1547.4	1547.4
55°	19522.9	16484.4	5815.9	1678.3	1503.1	1658.5	1692.2	1589.1	1519.0	1551.4	1563.3
57.5°	22023.2	18266.5	4963.6	1557.3	1397.9	1549.4	1670.4	1620.8	1573.2	1702.1	1710.1
60°	23942.9	19319.3	3707.1	1447.5	1319.9	1511.0	1728.6	1742.5	1754.4	2062.5	2104.9
62.5°	24345.0	18969.4	2548.6	1362.2	1284.2	1543.4	1833.7	1835.7	1821.8	2036.7	2062.5
65°	22499.3	16752.8	1853.6	1314.0	1254.4	1601.0	1923.7	1881.3	1790.1	1953.4	1905.1
67.5°	17867.7	12621.8	1543.4	1278.3	1210.8	1597.0	2018.9	1923.7	1772.2	1913.7	1835.7
70°	11598.2	7631.8	1374.1	1248.5	1158.6	1520.9	2074.4	1919.7	1720.0	1780.2	1688.2
72.5°	5658.6	3412.9	1260.4	1204.8	1105.0	1415.8	2072.4	1883.3	1666.4	1662.5	1612.9
75°	2214.0	1563.3	1156.6	1138.7	1013.7	1296.1	2016.9	1831.7	1602.9	1538.8	1520.9
77.5°	1296.1	1114.9	1025.6	1041.5	904.0	1176.4	1935.6	1742.5	1515.0	1439.6	1419.8
80°	943.6	834.5	874.2	900.0	772.4	1057.4	1825.8	1632.7	1417.8	1455.5	1427.7
82.5°	605.1	537.6	708.9	734.7	643.4	935.7	1706.1	1517.0	1280.2	1162.5	1134.8
85°	308.8	340.6	527.7	559.4	496.0	768.4	1561.3	1364.2	1124.8	967.5	983.3
87.5°	173.3	232.8	336.6	376.3	350.5	591.2	1266.3	1124.8	917.9	746.6	657.3
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)