

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: P453723

Luminaire Tested: **GALN-SA4D-730-U-T3R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453723
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-8)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4D-730-U-T3R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28521 lumens
Efficiency: N/A
Efficacy: 116.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

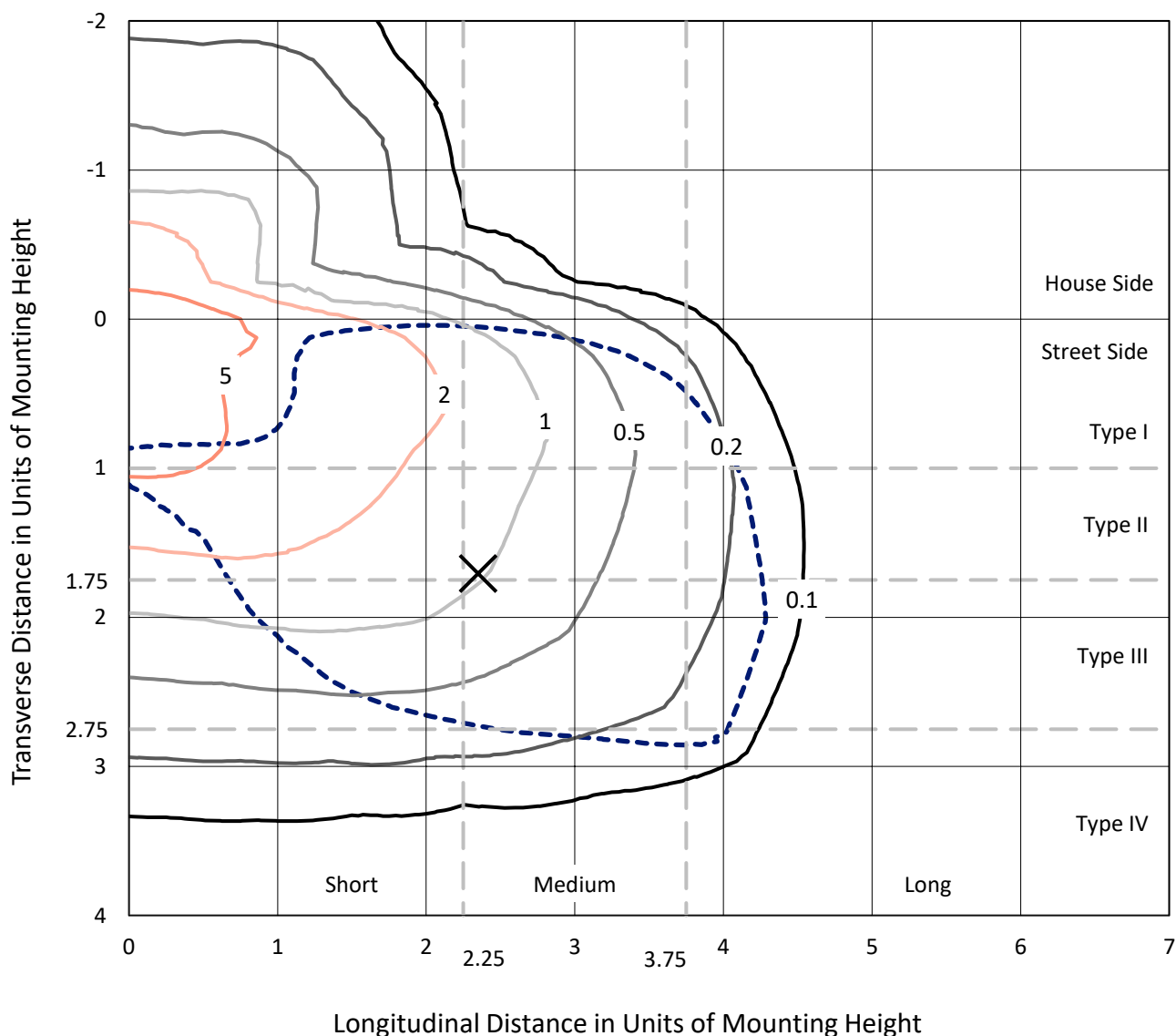
Input Watts (W): 245
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

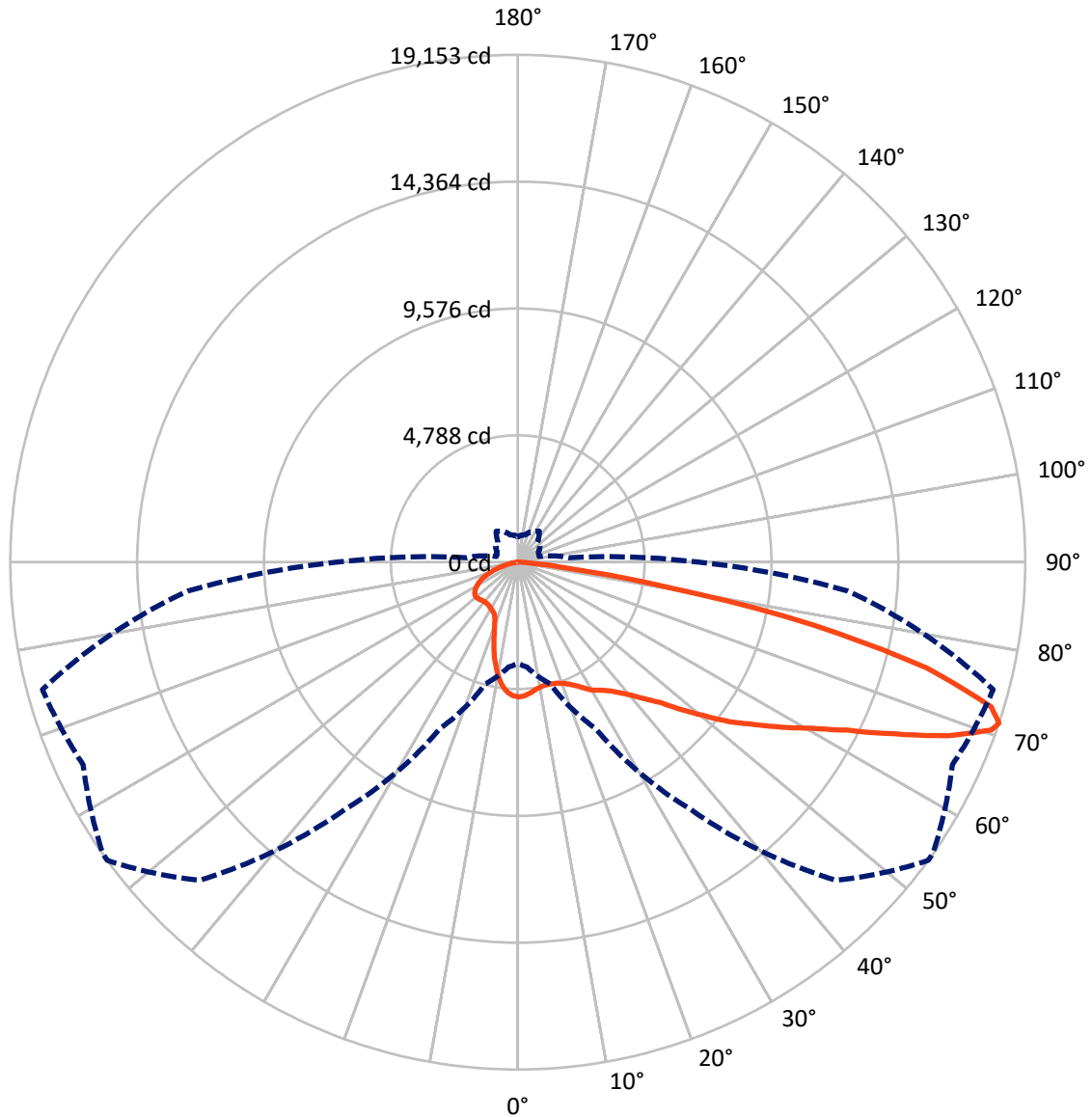
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.2 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5149.3	0.0	5149.3
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	23371.7	0.0	23371.7
	% Fixture	81.9	0.0	81.9
Total	Lumens	28521.0	0.0	28521.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	453.5	1.6
10°-20°	1197.4	4.2
20°-30°	1993.7	7.0
30°-40°	2948.0	10.3
40°-50°	4152.4	14.6
50°-60°	5560.2	19.5
60°-70°	7008.2	24.6
70°-80°	4786.6	16.8
80°-90°	420.9	1.5
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°	28521.0	100.0
0°-180°	28521.0	100.0

Coefficient of Utilization



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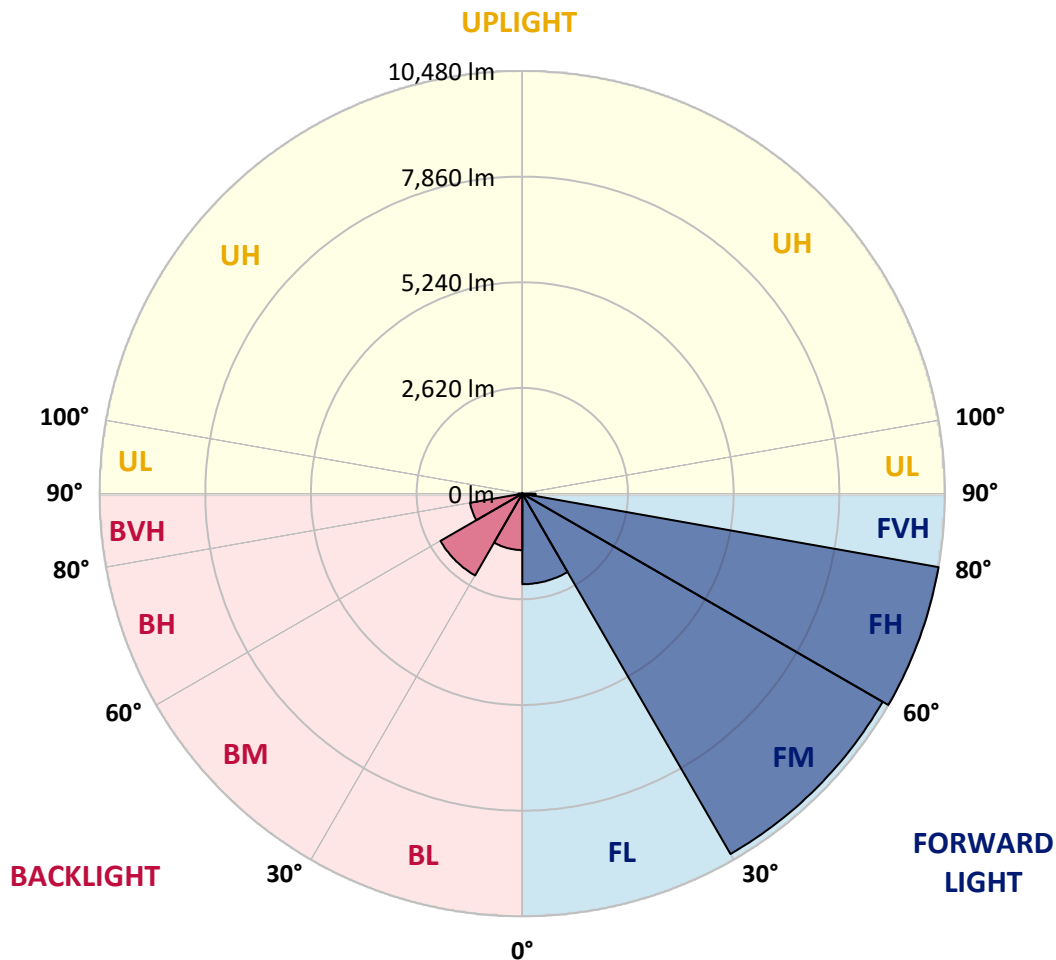
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2245.1	7.9			
FM	(30°-60°)	10317.9	36.2			
FH	(60°-80°)	10479.7	36.7			G4/12000
FVH	(80°-90°)	329.0	1.2			G3/500
BL	(0°-30°)	1399.5	4.9	B3/2500		
BM	(30°-60°)	2342.8	8.2	B2/2500		
BH	(60°-80°)	1315.1	4.6	B3/2500		G3/2500
BVH	(80°-90°)	91.9	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	5088.6	5088.6	5088.6	5088.6	5088.6	5088.6	5088.6	5088.6	5088.6	5088.6	5088.6
2.5°	4916.0	4939.1	4945.3	4960.7	4993.1	5019.2	5045.4	5042.4	5079.3	5094.7	5108.6
5°	4697.3	4703.4	4726.5	4757.3	4814.3	4886.8	4957.6	4959.2	5050.1	5122.5	5157.9
7.5°	4537.0	4557.1	4572.5	4604.8	4664.9	4743.5	4855.9	4865.2	5026.9	5170.2	5245.7
10°	4432.3	4455.4	4472.3	4512.4	4572.5	4660.3	4782.0	4798.9	5010.0	5245.7	5378.2
12.5°	4336.8	4359.9	4375.3	4427.7	4506.2	4614.1	4751.2	4771.2	5016.2	5333.5	5523.0
15°	4395.3	4413.8	4407.6	4423.0	4475.4	4598.7	4763.5	4783.5	5039.3	5418.3	5666.3
17.5°	4655.7	4671.1	4620.2	4561.7	4537.0	4627.9	4802.0	4823.6	5085.5	5506.1	5812.6
20°	5039.3	5080.9	4969.9	4839.0	4720.4	4732.7	4882.1	4905.2	5150.2	5593.9	5962.1
22.5°	5538.4	5569.2	5433.7	5218.0	4999.2	4886.8	5002.3	5016.2	5247.2	5707.9	6125.4
25°	6125.4	6143.9	5955.9	5678.6	5362.8	5150.2	5167.1	5191.8	5407.5	5837.3	6270.2
27.5°	6695.4	6753.9	6536.7	6197.8	5781.8	5427.5	5393.6	5409.0	5581.6	5909.7	6370.3
30°	7371.7	7367.1	7137.6	6744.7	6211.7	5729.5	5607.7	5604.7	5675.5	5945.1	6442.7
32.5°	7910.9	7974.1	7749.2	7320.9	6703.1	6042.2	5755.6	5749.5	5747.9	6006.8	6550.6
35°	8524.1	8533.3	8326.9	7895.5	7234.6	6435.0	5962.1	5931.3	5895.8	6139.3	6696.9
37.5°	9072.5	9115.7	8926.2	8442.4	7756.9	6843.3	6245.6	6225.5	6117.7	6368.8	6931.1
40°	9500.8	9533.2	9419.2	8958.5	8271.4	7283.9	6606.0	6569.1	6438.1	6744.7	7243.9
42.5°	9641.0	9707.3	9751.9	9525.5	8863.0	7806.2	7049.7	7003.5	6903.4	7314.7	7604.4
45°	9651.8	9756.6	9992.3	10003.1	9457.7	8431.6	7567.4	7535.0	7527.3	8045.0	8111.2
47.5°	9570.1	9676.4	10072.4	10286.5	9987.6	9063.3	8314.6	8263.7	8268.3	8947.7	8679.7
50°	9372.9	9499.3	9979.9	10468.3	10402.1	9719.6	9103.3	9086.4	9181.9	9978.4	9269.7
52.5°	9001.7	9154.2	9884.4	10582.3	10710.2	10285.0	10000.0	9952.2	10194.1	11096.9	9915.2
55°	7974.1	8203.6	9534.7	10645.5	11002.9	10825.7	10807.2	10893.5	11214.0	12317.0	10625.4
57.5°	7438.0	7610.5	8775.2	10656.3	11372.6	11454.3	11750.1	11771.6	12332.4	13612.7	11428.1
60°	7145.3	7297.8	8359.2	10585.4	11888.7	12232.3	12714.5	12791.5	13424.7	15016.1	12260.0
62.5°	6889.5	7020.5	8109.7	10340.4	12471.1	13386.2	13963.9	14000.9	14664.9	16566.0	13081.1
65°	6287.1	6436.6	7607.4	10095.5	12973.3	14828.2	15621.6	15578.4	15985.2	17903.2	13595.7
67.5°	5475.3	5664.7	6669.2	9249.7	13221.3	16404.2	17488.8	17434.9	17288.5	18779.8	13743.6
70°	4438.4	4540.1	5469.1	7787.7	12230.7	17231.5	18963.1	18906.1	18095.8	18895.3	13044.2
71°	3819.1	3977.8	4762.0	6917.2	11406.5	16978.8	19152.6	19137.2	18097.3	18576.4	12517.3
72.5°	2981.0	3078.1	3771.4	5359.7	9694.9	15543.0	18684.3	18742.8	17704.5	17690.6	11431.2
75°	1885.7	1928.8	2366.3	3155.1	5319.7	11007.5	15949.7	16108.4	15720.2	14480.0	8501.0
77.5°	1095.4	1150.8	1417.3	1859.5	2298.6	5974.4	11412.7	11585.2	10922.8	7972.6	3480.2
80°	637.8	699.4	933.6	1080.0	1055.3	2216.9	5811.1	6105.4	4729.6	2013.6	976.7
82.5°	354.3	395.9	656.3	657.8	562.3	724.1	1828.7	1913.4	1349.6	811.9	399.0
85°	257.3	291.2	423.7	383.6	269.6	311.2	636.3	667.1	545.4	342.0	129.4
87.5°	90.9	129.4	232.6	184.9	73.9	64.7	183.3	149.4	138.7	95.5	29.3
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°	5088.6	5088.6	5088.6	5088.6	5088.6	5088.6	5088.6	5088.6	5088.6	5088.6	5088.6
2.5°	5116.3	5119.4	5104.0	5076.2	5048.5	5013.1	4973.0	4942.2	4928.3	4926.8	4925.3
5°	5171.8	5179.5	5120.9	5034.6	4939.1	4822.0	4721.9	4607.9	4578.6	4532.4	4546.3
7.5°	5261.1	5256.5	5140.9	4957.6	4734.2	4486.2	4276.7	4155.0	4028.6	3993.2	3994.7
10°	5389.0	5359.7	5140.9	4800.5	4427.7	4059.5	3766.7	3581.9	3481.7	3398.5	3367.7
12.5°	5524.6	5450.6	5091.6	4580.2	4033.3	3581.9	3267.6	3018.0	2953.3	2885.5	2887.1
15°	5654.0	5530.7	4994.6	4270.5	3608.1	3071.9	2766.9	2617.5	2597.4	2605.1	2603.6
17.5°	5771.1	5587.7	4846.7	3925.4	3112.0	2634.4	2472.6	2483.4	2537.4	2575.9	2580.5
20°	5889.7	5621.6	4626.4	3463.2	2643.7	2369.4	2375.6	2460.3	2542.0	2594.4	2602.1
22.5°	6002.1	5637.0	4367.6	3016.5	2304.7	2257.0	2347.9	2438.8	2518.9	2569.7	2577.4
25°	6076.1	5601.6	4000.9	2549.7	2138.3	2216.9	2312.4	2389.5	2457.2	2509.6	2521.9
27.5°	6096.1	5487.6	3546.4	2172.2	2061.3	2178.4	2266.2	2323.2	2375.6	2424.9	2434.1
30°	6085.3	5319.7	3047.3	1950.4	2016.6	2133.7	2201.5	2243.1	2306.3	2344.8	2352.5
32.5°	6068.4	5124.0	2526.6	1831.8	1979.7	2092.1	2132.2	2169.2	2167.6	2152.2	2163.0
35°	6074.5	4889.8	2104.4	1760.9	1947.3	2061.3	2095.2	2049.0	1916.5	1910.3	1904.2
37.5°	6106.9	4658.7	1797.9	1711.6	1930.4	2056.7	2075.2	1862.6	1745.5	1691.6	1677.7
40°	6190.1	4389.1	1596.1	1674.6	1928.8	2092.1	1984.3	1768.6	1543.7	1438.9	1431.2
42.5°	6301.0	4124.2	1472.8	1651.5	1947.3	2146.0	1947.3	1636.1	1391.2	1329.5	1320.3
45°	6465.9	3820.7	1405.0	1640.7	1975.0	2166.1	1935.0	1539.0	1329.5	1280.2	1280.2
47.5°	6652.3	3531.0	1368.0	1633.0	2010.5	2152.2	1825.6	1508.2	1300.3	1306.4	1335.7
50°	6837.1	3279.9	1340.3	1616.1	2041.3	2144.5	1780.9	1506.7	1308.0	1386.5	1438.9
52.5°	7051.3	3102.7	1306.4	1588.3	2041.3	2095.2	1767.1	1537.5	1329.5	1352.6	1375.7
55°	7310.1	3047.3	1263.3	1528.3	2004.3	1972.0	1759.4	1582.2	1344.9	1291.0	1300.3
57.5°	7652.1	3136.6	1221.7	1452.8	1919.6	1844.1	1756.3	1594.5	1309.5	1264.8	1255.6
60°	8049.6	3313.8	1209.4	1375.7	1804.0	1734.7	1737.8	1559.1	1260.2	1214.0	1221.7
62.5°	8328.4	3420.1	1201.7	1317.2	1677.7	1614.5	1693.1	1515.9	1238.6	1198.6	1206.3
65°	8328.4	3290.7	1130.8	1227.9	1514.4	1469.7	1639.2	1462.0	1210.9	1164.7	1157.0
67.5°	8012.6	2913.3	1023.0	1093.8	1334.2	1304.9	1563.7	1397.3	1169.3	1133.9	1115.4
70°	7189.9	2209.2	887.4	936.7	1106.1	1132.3	1466.6	1309.5	1100.0	1056.8	1029.1
71°	6827.9	1924.2	830.4	856.6	1018.3	1056.8	1420.4	1272.5	1069.2	1007.5	958.2
72.5°	6130.0	1620.7	744.1	754.9	870.4	939.8	1323.4	1201.7	1010.6	922.8	867.4
75°	4657.2	1183.2	599.3	593.1	644.0	745.6	1120.0	1070.7	885.8	767.2	734.9
77.5°	2012.0	644.0	448.3	452.9	437.5	565.4	881.2	919.7	759.5	623.9	594.7
80°	610.1	371.3	306.6	312.7	292.7	379.0	620.9	721.0	610.1	485.3	445.2
82.5°	312.7	221.8	209.5	206.4	186.4	214.1	375.9	493.0	436.0	303.5	268.1
85°	135.6	118.6	103.2	100.1	87.8	77.0	134.0	246.5	231.1	169.5	161.8
87.5°	33.9	30.8	20.0	18.5	10.8	1.5	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)