

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: P458321

Luminaire Tested: **GALN-SA9D-727-U-SL4**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P458321
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-SA9D-727-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 2700K, 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: 57410 lumens
Efficiency: N/A
Efficacy: 104.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

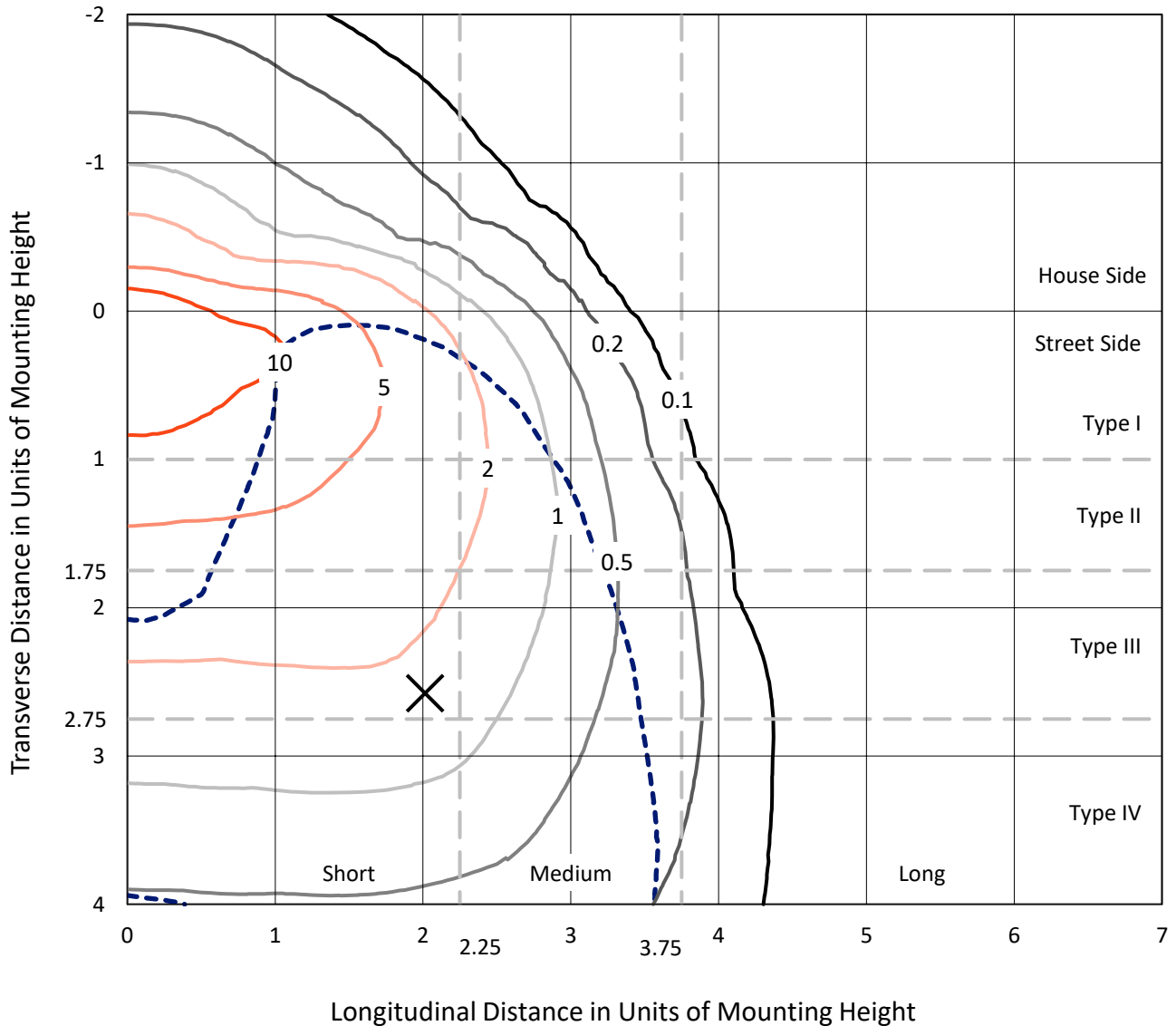
Input Watts (W): 552
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

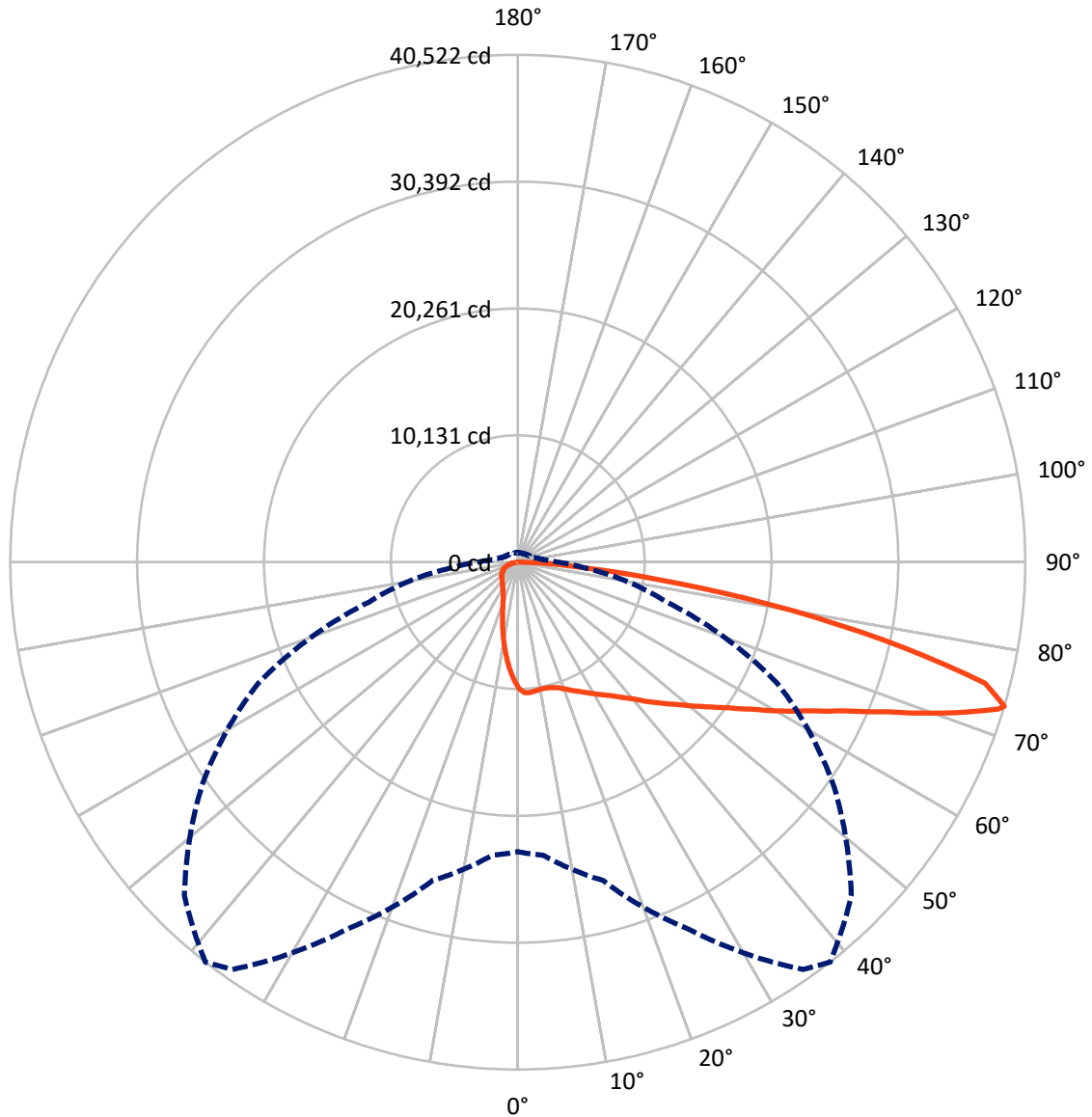
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 16.5 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	7717.6	0.0	7717.6
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	49692.4	0.0	49692.4
	% Fixture	86.6	0.0	86.6
Total	Lumens	57410.0	0.0	57410.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	880.4	1.5
10°-20°	2257.6	3.9
20°-30°	3515.6	6.1
30°-40°	5156.5	9.0
40°-50°	7649.1	13.3
50°-60°	10837.2	18.9
60°-70°	13747.3	23.9
70°-80°	11443.6	19.9
80°-90°	1922.7	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°	57410.0	100.0
0°-180°	57410.0	100.0

Coefficient of Utilization



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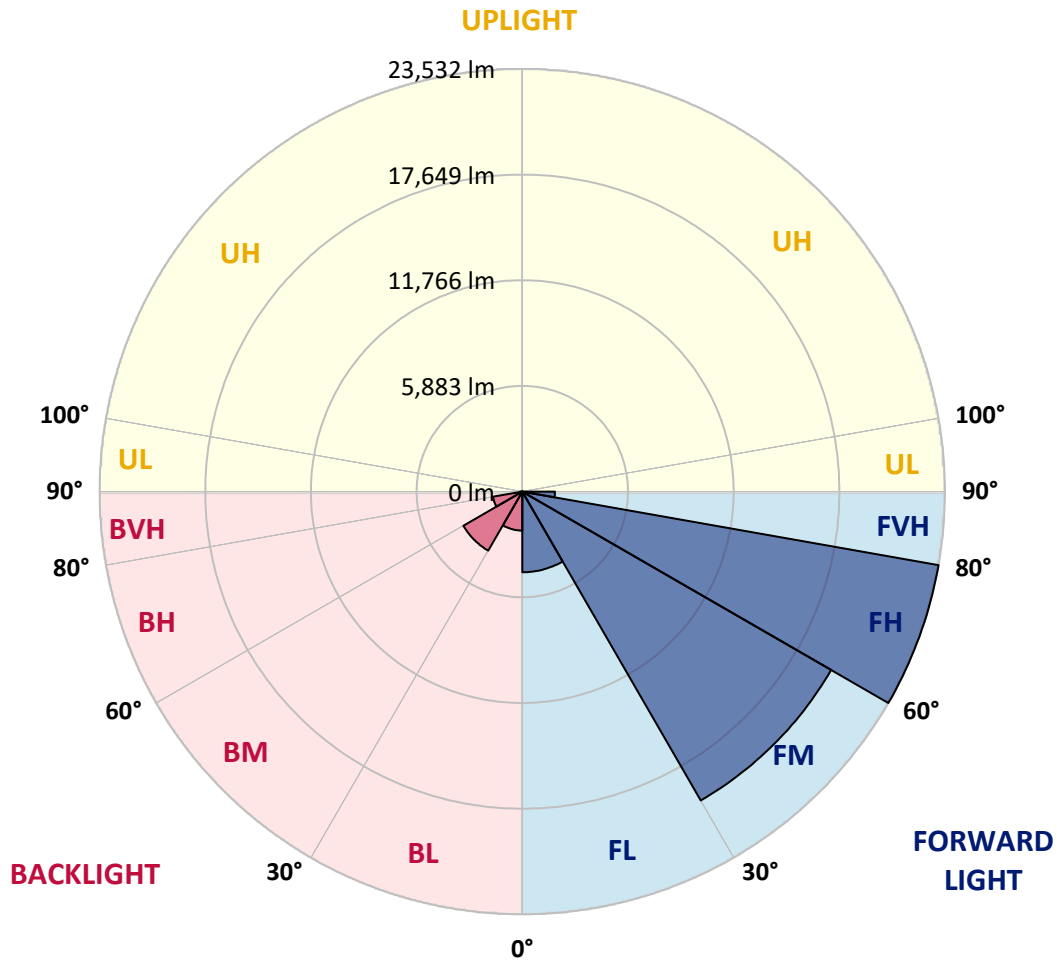
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4487.9	7.8			
FM	(30°-60°)	19853.9	34.6			
FH	(60°-80°)	23532.1	41.0			G5
FVH	(80°-90°)	1818.4	3.2			G5
BL	(0°-30°)	2165.6	3.8	B3/2500		
BM	(30°-60°)	3788.9	6.6	B3/5000		
BH	(60°-80°)	1658.8	2.9	B3/2500		G3/2500
BVH	(80°-90°)	104.3	0.2			G2/225
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°	10086.0	10086.0	10086.0	10086.0	10086.0	10086.0	10086.0	10086.0	10086.0	10086.0	10086.0
2.5°	10491.2	10543.1	10517.2	10481.5	10458.8	10436.1	10403.7	10309.7	10235.1	10154.0	10027.6
5°	10569.0	10601.4	10578.8	10533.4	10481.5	10458.8	10397.2	10274.0	10154.0	10017.9	9829.8
7.5°	10523.6	10536.6	10510.7	10455.6	10410.2	10368.0	10296.7	10160.5	10014.6	9849.3	9602.9
10°	10361.5	10410.2	10410.2	10364.8	10319.4	10296.7	10225.4	10095.7	9962.8	9774.7	9482.9
12.5°	10228.6	10280.5	10322.6	10309.7	10306.4	10306.4	10251.3	10154.0	9998.4	9820.1	9473.2
15°	10137.8	10199.4	10290.2	10342.1	10374.5	10384.2	10361.5	10277.2	10118.4	9910.9	9512.1
17.5°	10118.4	10193.0	10358.3	10471.8	10556.1	10552.8	10546.3	10429.6	10254.5	10040.6	9560.8
20°	10205.9	10303.2	10533.4	10711.7	10834.9	10812.2	10776.5	10624.1	10419.9	10180.0	9606.1
22.5°	10468.5	10569.0	10821.9	11016.4	11136.4	11136.4	11029.4	10828.4	10611.2	10342.1	9667.7
25°	10844.6	10954.8	11223.9	11421.7	11476.8	11434.6	11327.7	11084.5	10834.9	10575.5	9797.4
27.5°	11305.0	11437.9	11687.5	11852.9	11836.7	11804.2	11694.0	11382.8	11133.1	10896.5	10017.9
30°	11878.8	11976.1	12235.4	12274.3	12216.0	12209.5	12053.9	11742.6	11509.2	11327.7	10332.4
32.5°	12420.2	12507.8	12715.3	12731.5	12627.7	12640.7	12494.8	12209.5	12076.6	12011.7	10860.8
35°	12994.1	13039.5	13217.8	13198.3	13130.2	13120.5	13062.2	12789.8	12832.0	12948.7	11609.7
37.5°	13473.9	13564.7	13665.2	13681.4	13678.1	13710.6	13749.5	13619.8	13862.9	14229.3	12592.1
40°	13914.8	13992.6	14141.7	14193.6	14320.1	14384.9	14517.8	14521.1	15081.9	15685.0	13801.3
42.5°	14213.1	14346.0	14624.8	14718.8	15026.8	15221.3	15419.1	15629.8	16443.6	17218.4	15227.8
45°	14472.4	14647.5	15111.1	15402.9	15821.1	16057.8	16476.0	16916.9	18087.3	19102.1	16677.0
47.5°	14864.7	15020.3	15552.0	16067.5	16699.7	16972.0	17597.8	18255.9	19786.1	20898.1	18064.6
50°	15409.4	15503.4	16044.8	16884.5	17691.8	18041.9	18868.6	19818.5	21601.7	22671.5	19283.6
52.5°	16106.4	16145.3	16576.5	17695.0	18758.4	19192.8	20288.6	21397.4	23190.3	24211.5	20249.7
55°	16929.9	16865.1	17202.2	18554.2	19977.4	20544.8	21721.6	22995.7	24976.6	25456.4	20953.3
57.5°	17743.6	17643.1	17912.2	19598.1	21481.7	22165.8	23537.2	24642.7	26571.7	26620.3	21446.0
60°	18606.0	18531.5	18852.4	20823.6	23326.4	24136.9	25404.6	26351.2	28114.9	27430.8	21523.9
62.5°	19491.1	19371.1	19828.3	22201.4	25404.6	26140.5	27369.2	28166.8	29628.9	27732.3	20774.9
65°	20350.2	20295.1	21001.9	23838.7	27771.3	28607.7	29800.8	30342.2	30841.5	27278.5	18917.3
67.5°	21264.5	21374.7	22502.9	26023.8	30857.7	31908.1	33195.2	32686.2	31188.4	25129.0	15931.3
70°	22658.6	22729.9	24474.1	28886.5	34835.6	36103.3	36725.7	33519.4	29515.5	21047.3	11976.1
72.5°	23258.3	23572.8	26234.5	31891.9	39355.0	40129.9	37912.3	31661.7	24587.6	14297.4	6292.8
73°	23125.4	23501.5	26315.6	32349.0	39708.4	40522.2	37659.5	30705.3	22856.3	12313.2	5394.7
75°	21468.7	21932.4	25261.9	31966.4	39021.1	38534.8	33593.9	26169.7	15445.0	5599.0	2457.5
77.5°	16939.6	17072.5	20016.3	25813.1	30728.0	29826.7	25142.0	16356.1	6309.0	2081.4	1394.1
80°	8497.4	8986.9	11282.3	14786.9	20548.0	20253.0	15869.8	7735.5	2629.3	1222.2	924.0
82.5°	4088.2	4435.1	5495.2	7210.3	11353.6	11084.5	7858.7	4227.6	1669.6	713.2	544.7
85°	2632.5	2891.9	3498.2	3439.8	4668.5	4457.8	3530.6	3199.9	988.8	372.8	379.3
87.5°	1737.7	1903.1	2282.4	1825.3	1698.8	1536.7	1559.4	1802.6	194.5	142.6	51.9
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°	10086.0	10086.0	10086.0	10086.0	10086.0	10086.0	10086.0	10086.0	10086.0	10086.0	10086.0
2.5°	9975.7	9933.6	9794.2	9658.0	9528.3	9405.1	9324.1	9217.1	9145.8	9165.2	9194.4
5°	9726.1	9632.1	9385.7	9145.8	8918.8	8649.7	8432.5	8257.5	8124.5	8075.9	8066.2
7.5°	9463.5	9304.6	8951.3	8539.5	8153.7	7819.8	7434.0	7242.7	7019.0	6941.2	6915.3
10°	9304.6	9090.7	8594.6	8020.8	7440.5	6886.1	6467.9	6127.4	5819.4	5761.1	5731.9
12.5°	9259.2	8977.2	8309.3	7570.1	6798.5	6117.7	5498.5	5051.1	4752.8	4684.7	4584.2
15°	9233.3	8883.2	8043.5	7116.3	6137.2	5307.2	4655.6	4133.6	3861.3	3679.7	3682.9
17.5°	9210.6	8776.2	7745.2	6620.2	5566.6	4610.2	3890.4	3420.3	3170.7	3073.4	3063.7
20°	9178.2	8649.7	7401.6	6098.3	4914.9	3974.7	3323.1	2972.9	2804.4	2723.3	2720.1
22.5°	9165.2	8526.5	7064.4	5566.6	4337.8	3485.2	2947.0	2700.6	2593.6	2538.5	2538.5
25°	9197.6	8439.0	6711.0	5060.8	3825.6	3067.0	2687.6	2519.1	2457.5	2428.3	2418.6
27.5°	9298.2	8400.1	6360.9	4555.1	3355.5	2781.7	2512.6	2395.9	2350.5	2327.8	2331.0
30°	9489.4	8396.9	6017.2	4055.8	3005.4	2564.4	2373.2	2292.1	2256.5	2243.5	2240.2
32.5°	9797.4	8468.2	5680.0	3644.0	2710.3	2382.9	2243.5	2185.1	2168.9	2159.2	2156.0
35°	10319.4	8669.2	5346.1	3268.0	2483.4	2220.8	2120.3	2091.1	2068.4	2078.1	2081.4
37.5°	11022.9	9016.1	5028.4	2972.9	2311.6	2100.8	2016.5	1990.6	1977.6	1987.4	1997.1
40°	11966.3	9515.4	4762.5	2736.3	2188.4	2000.3	1925.8	1903.1	1890.1	1906.3	1909.6
42.5°	13007.0	10092.4	4542.1	2551.5	2087.9	1916.0	1844.7	1818.8	1809.1	1818.8	1822.0
45°	14076.9	10763.5	4428.6	2418.6	2003.6	1854.4	1779.9	1750.7	1728.0	1721.5	1731.2
47.5°	15130.6	11347.1	4425.4	2337.5	1935.5	1799.3	1718.3	1685.9	1656.7	1640.5	1637.2
50°	15989.7	11810.7	4503.2	2301.8	1877.1	1737.7	1656.7	1624.3	1585.4	1552.9	1559.4
52.5°	16638.1	12112.2	4538.8	2285.6	1844.7	1672.9	1591.8	1562.7	1517.3	1475.1	1475.1
55°	17056.3	12183.6	4451.3	2269.4	1818.8	1604.8	1517.3	1491.3	1445.9	1403.8	1403.8
57.5°	17199.0	11963.1	4136.8	2230.5	1792.8	1546.4	1442.7	1420.0	1384.3	1342.2	1335.7
60°	16868.3	11217.4	3585.7	2113.8	1741.0	1484.9	1361.7	1351.9	1339.0	1303.3	1300.1
62.5°	15594.2	9635.3	2985.9	1961.4	1653.4	1420.0	1287.1	1303.3	1313.0	1293.6	1290.3
65°	13473.9	7823.0	2551.5	1750.7	1536.7	1329.2	1206.0	1248.2	1274.1	1274.1	1267.6
67.5°	10928.9	6007.5	2149.5	1569.1	1390.8	1206.0	1115.3	1147.7	1167.1	1160.6	1176.9
70°	7767.9	4068.8	1750.7	1361.7	1206.0	1066.6	998.5	998.5	985.6	979.1	979.1
72.5°	3767.2	2324.5	1420.0	1138.0	1027.7	911.0	855.9	833.2	807.3	804.0	787.8
73°	3148.0	2084.6	1355.2	1095.8	985.6	888.3	826.7	791.1	774.8	761.9	758.6
75°	1916.0	1582.1	1131.5	924.0	839.7	765.1	710.0	677.6	661.4	651.6	648.4
77.5°	1261.2	1180.1	878.6	706.8	641.9	596.5	573.8	541.4	531.7	518.7	518.7
80°	940.2	901.3	629.0	499.3	460.4	421.5	415.0	408.5	382.6	366.3	359.9
82.5°	606.3	641.9	427.9	333.9	291.8	259.4	262.6	272.3	246.4	223.7	217.2
85°	431.2	463.6	259.4	152.4	123.2	107.0	120.0	107.0	110.2	87.5	71.3
87.5°	71.3	123.2	45.4	19.5	9.7	6.5	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)