

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: P458364

Luminaire Tested: **GALN-SA9D-730-U-T4FT-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P458364  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-29)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GALN-SA9D-730-U-T4FT-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 45991 lumens  
Efficiency: N/A  
Efficacy: 83.3 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

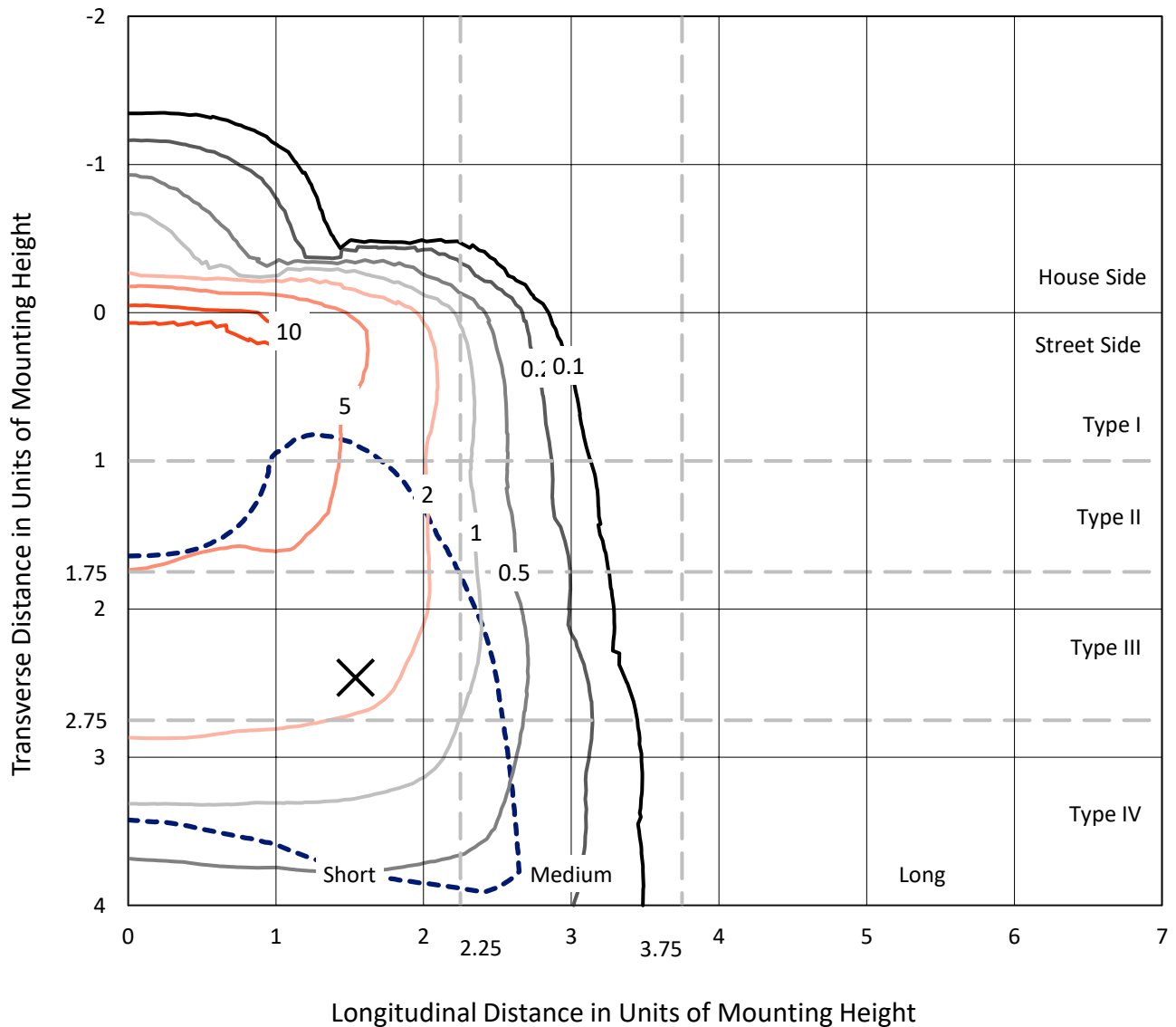
Input Watts (W): 552  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

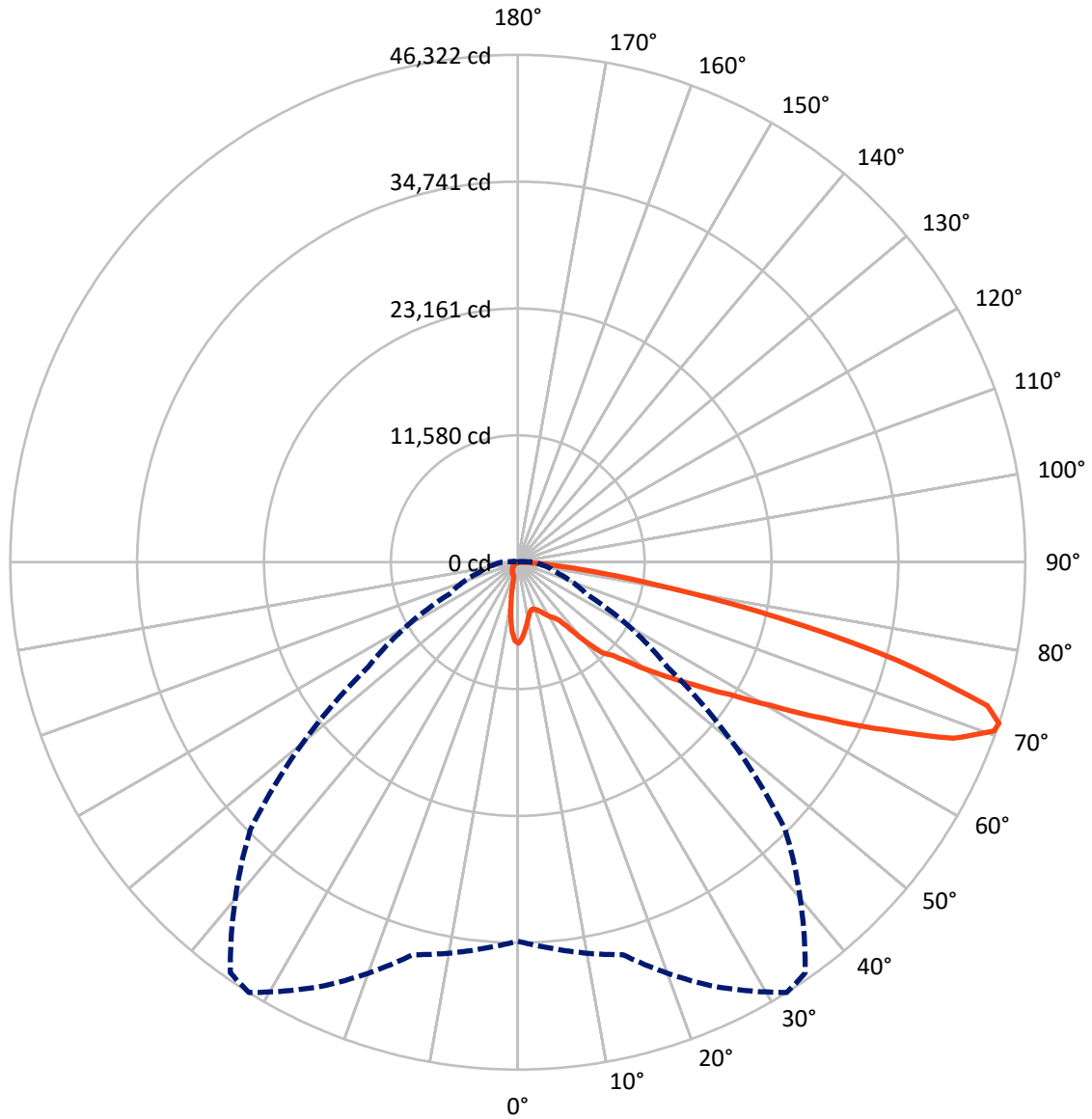
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.8 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 32-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3852.2	0.0	3852.2
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	42138.8	0.0	42138.8
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	45991.0	0.0	45991.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	601.4	1.3
10°-20°	1305.2	2.8
20°-30°	2030.5	4.4
30°-40°	3382.9	7.4
40°-50°	6292.7	13.7
50°-60°	10103.2	22.0
60°-70°	13589.2	29.5
70°-80°	8062.7	17.5
80°-90°	623.2	1.4
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°	45991.0	100.0
0°-180°	45991.0	100.0



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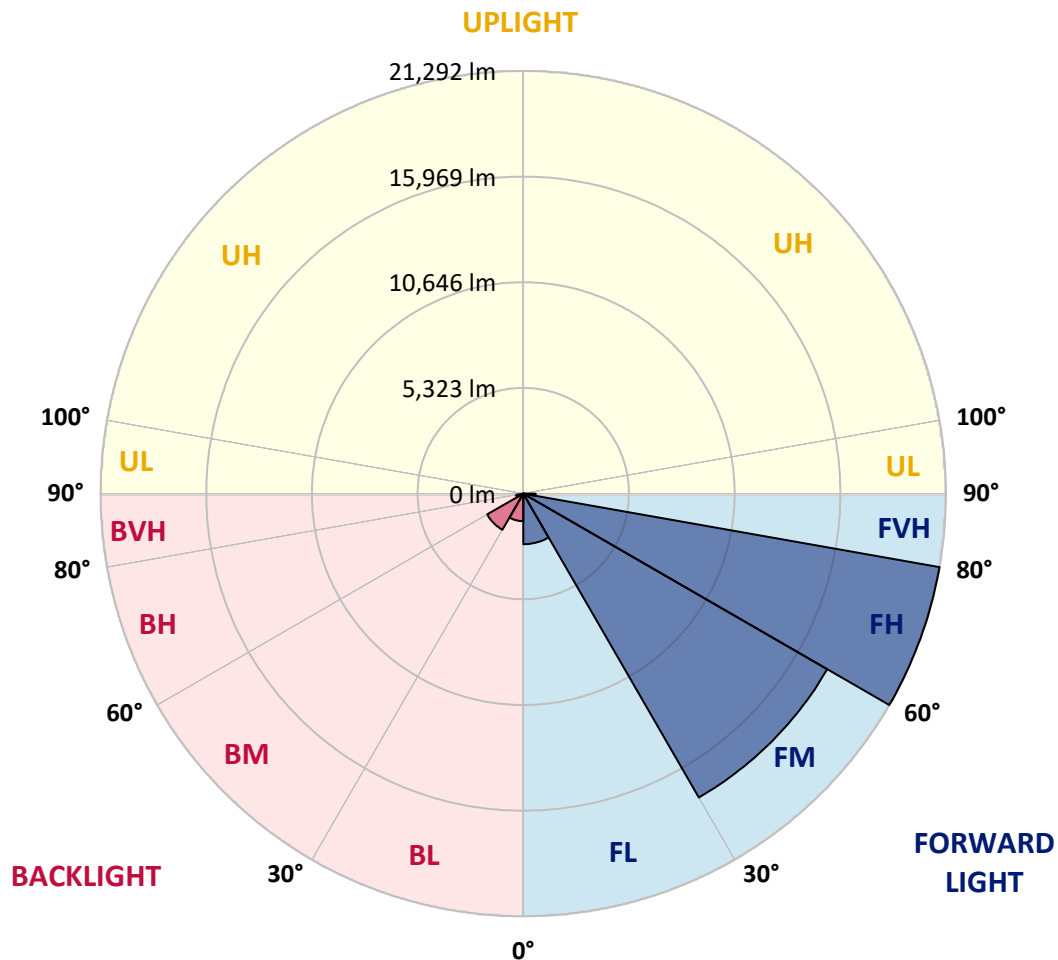
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2549.1	5.5			
FM	(30°-60°)	17677.2	38.4			
FH	(60°-80°)	21291.6	46.3			G5
FVH	(80°-90°)	620.8	1.3			G4/750
BL	(0°-30°)	1388.0	3.0	B3/2500		
BM	(30°-60°)	2101.5	4.6	B2/2500		
BH	(60°-80°)	360.3	0.8	B1/500		G1/500
BVH	(80°-90°)	2.4	0.0			G0/10
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°	32°	35°	45°	55°	65°	75°	85°
0°	7396.1	7396.1	7396.1	7396.1	7396.1	7396.1	7396.1	7396.1	7396.1	7396.1	7396.1
2.5°	6859.5	6930.1	6919.5	6944.2	7004.2	7028.9	7096.0	7170.1	7272.5	7343.1	7389.0
5°	6142.8	6195.8	6202.8	6326.4	6386.4	6453.5	6651.2	6866.5	7106.6	7297.2	7424.3
7.5°	5376.7	5405.0	5461.4	5623.8	5775.6	5842.7	6142.8	6517.0	6894.8	7251.3	7480.8
10°	4744.8	4776.6	4878.9	5051.9	5193.1	5281.4	5698.0	6167.5	6697.1	7226.6	7562.0
12.5°	4384.7	4402.3	4441.2	4596.5	4776.6	4871.9	5320.2	5856.8	6538.2	7237.2	7699.7
15°	4360.0	4352.9	4307.0	4370.6	4533.0	4631.8	5069.6	5645.0	6397.0	7272.5	7862.1
17.5°	4490.6	4472.9	4363.5	4363.5	4497.7	4578.9	4963.7	5532.0	6326.4	7353.7	8091.5
20°	4691.8	4663.6	4483.5	4469.4	4600.0	4684.8	5027.2	5539.1	6340.5	7505.5	8398.7
22.5°	4946.0	4914.2	4642.4	4649.5	4790.7	4875.4	5210.8	5666.2	6428.8	7692.6	8727.0
25°	5277.9	5242.6	4921.3	4907.2	5055.5	5129.6	5482.6	5892.1	6552.3	7925.6	9157.7
27.5°	5719.2	5645.0	5260.2	5239.0	5397.9	5493.2	5810.9	6195.8	6771.2	8246.9	9736.7
30°	6082.8	6001.6	5634.4	5577.9	5747.4	5821.5	6149.9	6605.3	7201.9	8808.2	10538.1
32.5°	6559.4	6439.3	6008.6	5860.4	6040.4	6135.7	6640.6	7367.8	7840.9	9401.3	11491.3
35°	7632.6	7558.5	7032.4	6513.5	6502.9	6622.9	7364.3	8137.4	8497.5	10326.3	12790.4
37.5°	9168.3	9115.3	8557.6	7862.1	7660.8	7604.4	8243.4	8984.7	9546.1	11597.2	14301.4
40°	10951.1	10827.6	10315.7	9726.1	9464.9	9298.9	9281.3	10245.1	10915.8	13323.5	15876.0
42.5°	12229.1	12003.2	11381.8	11339.5	11283.0	11110.0	10608.7	12087.9	12684.5	15180.5	17559.9
45°	13570.6	13228.2	12303.2	12144.4	12123.2	12112.6	12613.9	14269.7	14612.1	17192.8	19289.8
47.5°	14612.1	14340.3	13581.2	13510.6	13598.9	13838.9	15265.2	16585.6	16515.0	18986.2	20740.8
50°	15999.5	15794.8	14951.0	15085.2	15540.6	15932.4	18255.4	19109.8	18078.9	20398.3	21796.3
52.5°	17637.6	17259.9	16476.1	16839.7	17538.8	18191.9	21429.2	21319.7	19176.8	21461.0	22583.6
55°	19056.8	18788.5	18520.2	18897.9	19942.9	20758.4	24295.8	22975.5	19974.7	22315.3	22929.6
57.5°	21457.4	21393.9	21118.5	21503.3	22770.7	23618.0	26862.4	24260.5	20486.6	22760.1	22523.6
60°	25009.0	24906.6	24394.7	24885.4	26537.6	27868.5	29227.7	25414.9	20603.1	22587.1	21355.1
62.5°	29280.7	28931.2	28493.4	29217.1	31483.6	32069.6	31455.4	26099.8	20168.9	21210.3	18537.8
65°	33270.0	32909.9	32920.5	34445.6	36913.3	37312.2	34053.7	25997.5	18897.9	17761.2	13673.0
67.5°	36323.7	36263.7	36694.4	39670.5	42897.2	42621.8	36376.7	24465.3	15131.1	11512.5	7265.4
70°	36479.0	36595.5	37831.2	42854.8	46131.0	45693.2	36179.0	19886.4	9433.1	5295.5	2863.1
71°	34600.9	35384.6	37093.3	42756.0	46321.6	45753.3	34512.6	16656.2	6919.5	3692.7	2065.3
72.5°	29485.4	29898.5	33591.2	40238.9	44814.2	43599.8	30286.8	11674.8	4430.6	2259.4	1186.2
75°	16239.6	17256.3	22495.4	31568.3	35843.6	34777.4	19738.2	5546.2	2210.0	1235.6	490.7
77.5°	7731.5	7533.8	10975.8	18774.4	24302.9	24246.4	9945.0	2464.2	1288.6	836.7	247.1
80°	2210.0	2485.4	4201.1	8924.7	13493.0	13641.3	3819.8	1189.7	893.2	653.1	127.1
82.5°	667.2	681.4	1542.8	3946.9	6711.2	6326.4	1433.3	607.2	642.5	519.0	74.1
85°	116.5	144.7	455.4	1391.0	2559.5	1941.7	360.1	289.5	423.6	342.4	42.4
87.5°	7.1	10.6	151.8	158.9	225.9	130.6	63.5	42.4	91.8	91.8	24.7
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°	7396.1	7396.1	7396.1	7396.1	7396.1	7396.1	7396.1	7396.1	7396.1	7396.1	7396.1
2.5°	7420.8	7442.0	7427.8	7396.1	7343.1	7279.6	7194.8	7124.2	7064.2	7032.4	7071.3
5°	7466.7	7494.9	7424.3	7265.4	7025.4	6764.1	6467.6	6238.1	6058.1	6001.6	5980.4
7.5°	7537.3	7554.9	7364.3	7011.3	6502.9	5885.1	5344.9	4889.5	4536.5	4430.6	4275.2
10°	7629.1	7618.5	7258.4	6601.7	5708.6	4780.1	3943.4	3322.1	2852.5	2683.1	2668.9
12.5°	7770.3	7713.8	7124.2	6043.9	4762.4	3548.0	2513.6	1966.4	1669.9	1571.0	1549.8
15°	7946.8	7812.7	6912.4	5390.8	3646.8	2291.2	1549.8	1383.9	1345.1	1338.0	1330.9
17.5°	8155.1	7943.3	6633.5	4589.4	2563.0	1486.3	1295.6	1292.1	1295.6	1288.6	1285.0
20°	8437.5	8081.0	6301.7	3639.8	1694.6	1253.3	1235.6	1235.6	1239.2	1235.6	1235.6
22.5°	8737.6	8243.4	5892.1	2778.4	1278.0	1189.7	1186.2	1193.3	1200.3	1196.8	1196.8
25°	9108.3	8455.2	5352.0	1902.9	1143.8	1136.8	1140.3	1154.4	1168.5	1172.1	1168.5
27.5°	9644.9	8716.4	4773.0	1309.8	1048.5	1055.6	1090.9	1126.2	1147.4	1150.9	1150.9
30°	10248.6	9005.9	4017.5	1062.6	970.8	970.8	1013.2	1080.3	1126.2	1133.2	1136.8
32.5°	11025.3	9341.3	3180.8	956.7	896.7	889.6	928.5	1009.7	1094.4	1119.1	1119.1
35°	11985.5	9736.7	2365.3	889.6	843.8	826.1	847.3	914.4	1023.8	1094.4	1101.5
37.5°	13111.7	10110.9	1729.9	829.6	794.3	769.6	783.7	836.7	925.0	1030.9	1059.1
40°	14153.2	10442.8	1292.1	780.2	744.9	727.3	737.8	762.6	836.7	935.5	953.2
42.5°	15289.9	10700.5	1027.3	727.3	695.5	688.4	688.4	699.0	748.4	804.9	808.4
45°	16423.2	10792.3	861.4	663.7	642.5	649.6	646.1	639.0	660.2	653.1	653.1
47.5°	17231.6	10682.8	713.1	603.7	603.7	614.3	596.6	571.9	561.3	519.0	522.5
50°	17785.9	10283.9	586.0	533.1	561.3	575.4	540.1	501.3	462.5	416.6	406.0
52.5°	18015.3	9574.3	480.1	441.3	497.8	515.4	473.1	427.2	367.2	328.3	317.7
55°	17867.1	8698.8	398.9	360.1	420.1	441.3	398.9	346.0	278.9	236.5	229.5
57.5°	17214.0	7653.8	338.9	286.0	335.4	349.5	321.3	264.8	197.7	155.3	155.3
60°	16084.2	6573.5	275.4	225.9	250.7	271.8	243.6	190.6	134.2	95.3	88.3
62.5°	13793.1	5337.9	222.4	176.5	176.5	194.2	169.5	137.7	84.7	49.4	45.9
65°	9959.1	3661.0	176.5	130.6	127.1	127.1	105.9	91.8	49.4	21.2	14.1
67.5°	5412.0	2065.3	141.2	98.8	88.3	84.7	67.1	53.0	21.2	3.5	0.0
70°	2128.8	794.3	109.4	67.1	56.5	53.0	35.3	24.7	14.1	0.0	0.0
71°	1443.9	547.2	95.3	56.5	45.9	38.8	28.2	21.2	10.6	0.0	0.0
72.5°	826.1	338.9	74.1	42.4	35.3	28.2	21.2	14.1	10.6	0.0	0.0
75°	360.1	173.0	45.9	31.8	24.7	17.7	14.1	10.6	3.5	0.0	0.0
77.5°	183.6	95.3	31.8	24.7	14.1	10.6	7.1	3.5	0.0	0.0	0.0
80°	102.4	49.4	21.2	14.1	10.6	7.1	3.5	3.5	0.0	0.0	0.0
82.5°	56.5	28.2	10.6	7.1	3.5	0.0	0.0	0.0	0.0	0.0	0.0
85°	35.3	17.7	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	17.7	7.1	0.0	0.0	0.0	0.0	3.5	3.5	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)