

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: P302822

Luminaire Tested: **GLNA-AF-01-LED-E1-T4W-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302822
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-01-LED-E1-T4W-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(1) 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: 4329.3 lumens
Efficiency: N/A
Efficacy: 98.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

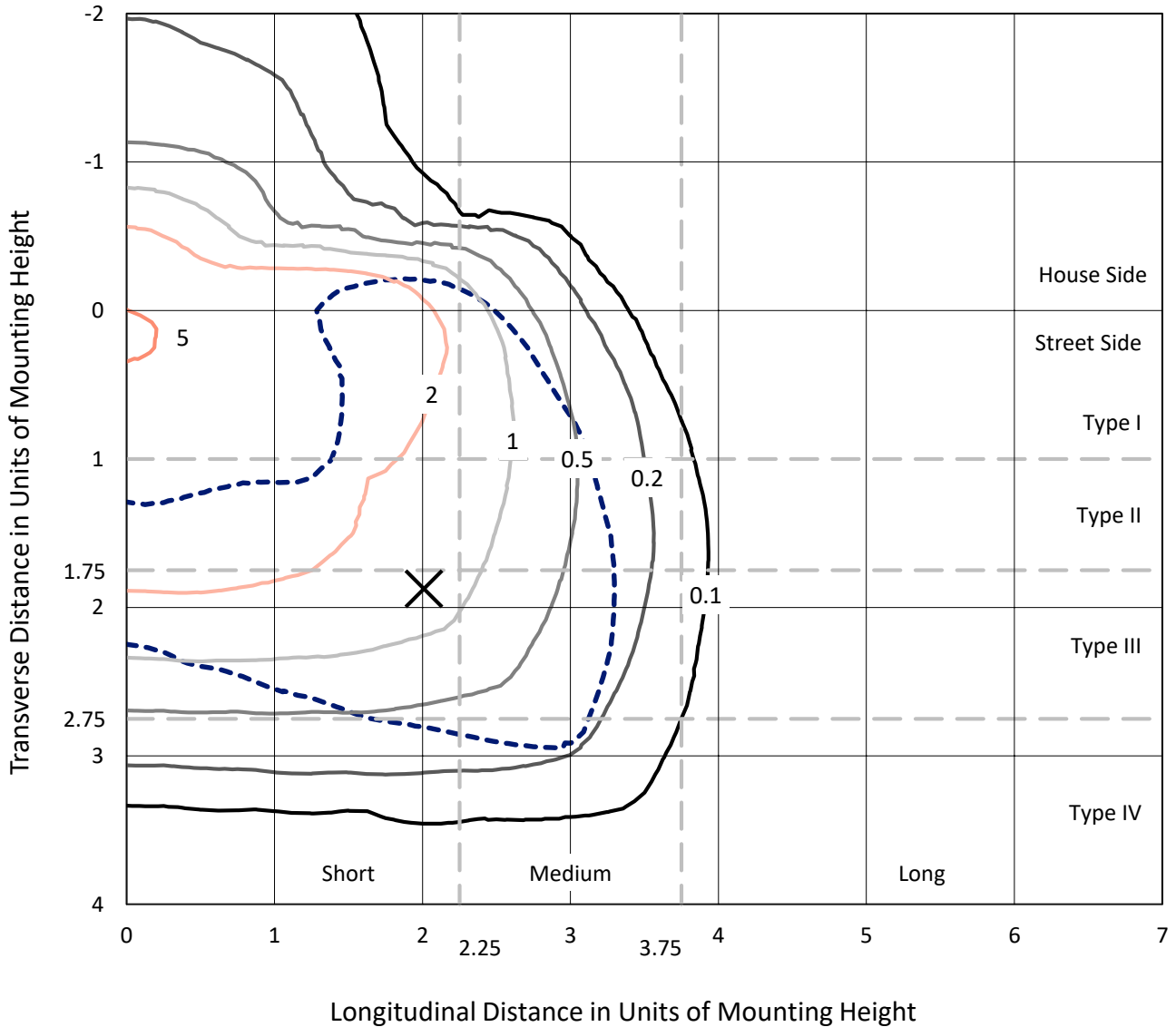
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

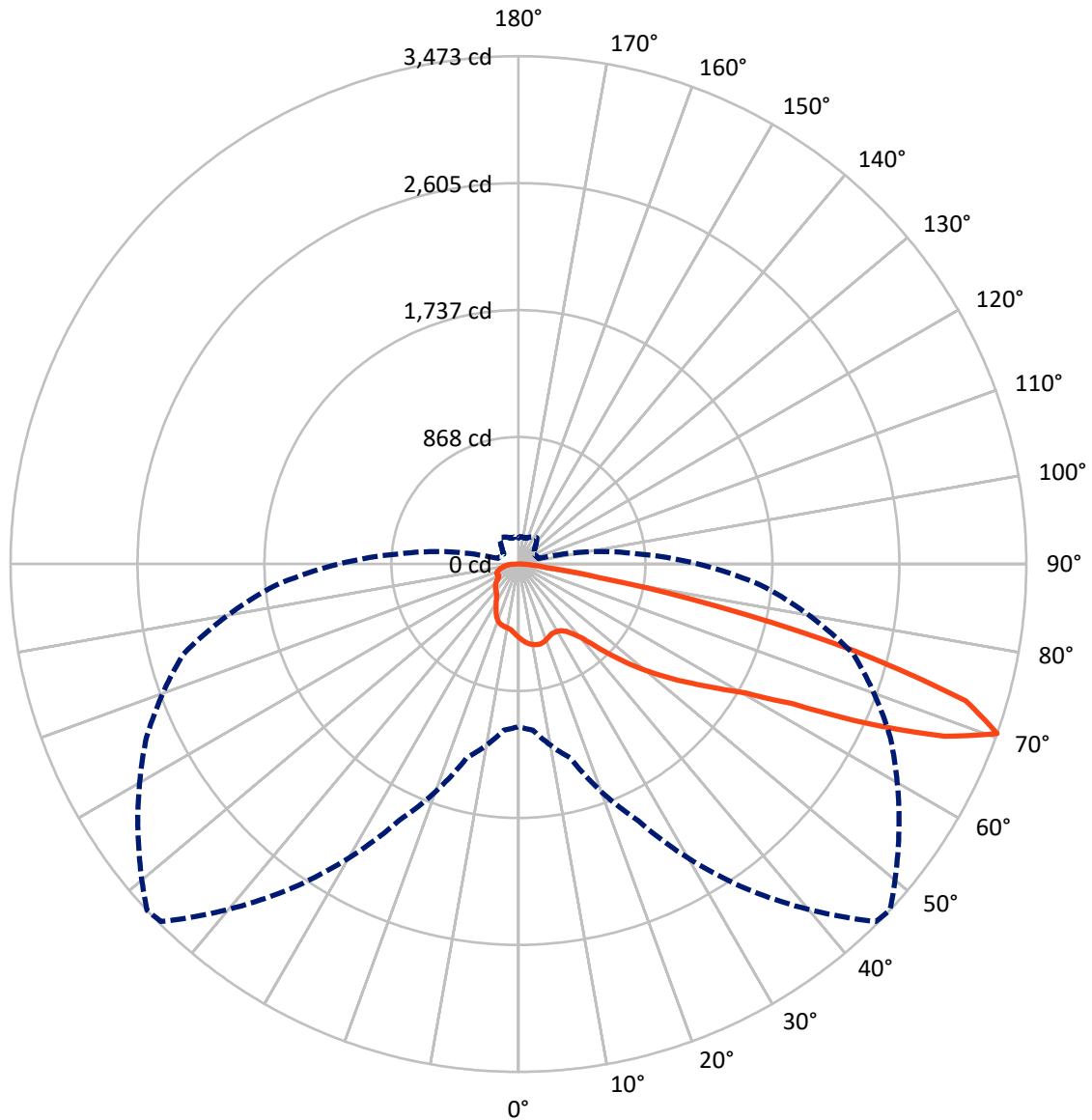
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.8 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	903.2	0.0	903.2
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	3426.1	0.0	3426.1
	% Fixture	79.1	0.0	79.1
Total	Lumens	4329.3	0.0	4329.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.1	1.1
10°-20°	141.2	3.3
20°-30°	208.5	4.8
30°-40°	303.1	7.0
40°-50°	545.4	12.6
50°-60°	944.9	21.8
60°-70°	1348.7	31.2
70°-80°	692.3	16.0
80°-90°	96.9	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°	4329.3	100.0
0°-180°	4329.3	100.0

Coefficient of Utilization



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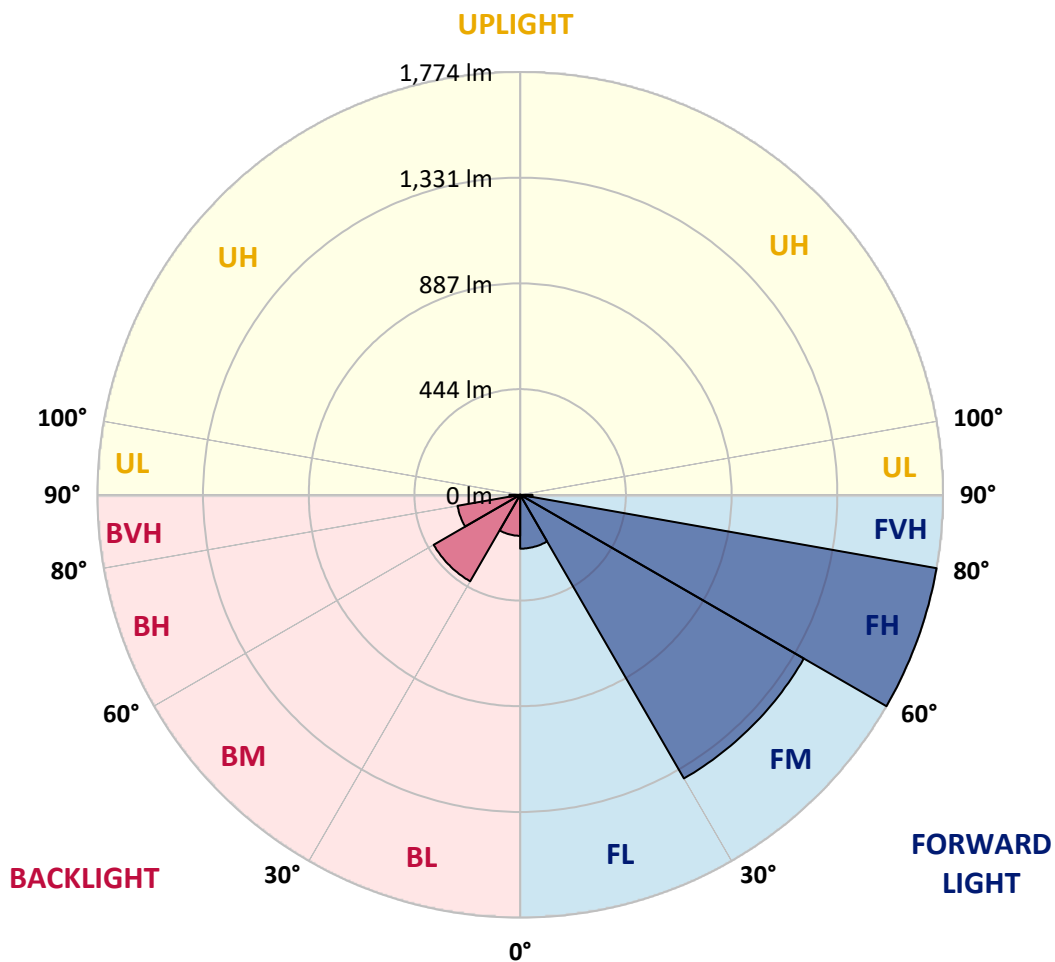
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	225.9	5.2			
FM	(30°-60°)	1374.2	31.7			
FH	(60°-80°)	1774.3	41.0			G1/1800
FVH	(80°-90°)	51.7	1.2			G1/100
BL	(0°-30°)	172.0	4.0	B1/500		
BM	(30°-60°)	419.2	9.7	B1/1000		
BH	(60°-80°)	266.8	6.2	B1/500		G1/500
BVH	(80°-90°)	45.2	1.0			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	502.3	502.3	502.3	502.3	502.3	502.3	502.3	502.3	502.3	502.3	502.3
2.5°	531.8	530.8	530.4	529.5	528.5	523.2	522.1	518.3	513.1	507.6	501.9
5°	566.8	566.6	564.2	560.0	553.3	541.7	539.0	529.7	517.3	505.3	493.3
7.5°	597.5	595.6	591.2	582.8	571.0	555.2	551.4	538.6	521.5	505.0	488.8
10°	620.0	619.0	609.3	597.7	582.3	564.9	560.5	546.1	527.4	506.5	486.3
12.5°	632.9	630.8	619.6	605.8	587.5	570.4	565.9	551.4	530.4	506.5	482.7
15°	632.1	630.6	619.4	604.2	585.8	570.8	566.8	552.3	529.7	504.4	478.1
17.5°	615.2	615.9	606.4	591.4	576.3	564.9	561.3	547.9	525.5	500.2	472.7
20°	585.8	588.7	582.3	569.1	560.7	552.9	550.6	539.2	519.0	494.1	466.7
22.5°	556.3	559.0	556.5	545.3	544.0	539.4	538.1	530.0	513.3	490.4	463.1
25°	534.6	537.1	536.7	526.9	530.8	530.6	529.5	525.5	512.0	490.4	463.8
27.5°	528.7	529.5	528.7	519.8	525.1	529.3	528.5	527.8	515.8	496.4	471.8
30°	548.9	547.6	541.1	523.2	528.1	533.9	533.1	533.5	527.2	512.5	489.7
32.5°	629.6	623.8	603.2	552.9	540.0	543.2	543.6	550.6	551.6	537.1	517.5
35°	750.2	743.9	717.1	632.5	577.3	566.4	566.4	576.9	583.2	572.5	560.7
37.5°	878.1	871.1	856.8	742.9	655.7	606.6	605.6	612.9	621.9	624.5	627.5
40°	1023.4	1016.0	1020.0	866.7	765.0	676.3	661.3	656.1	680.5	696.7	720.4
42.5°	1182.5	1179.0	1180.5	1004.6	889.4	780.6	759.3	732.1	761.6	790.5	840.0
45°	1329.6	1332.6	1331.1	1152.3	1028.1	907.8	885.2	832.6	861.5	910.9	991.6
47.5°	1458.6	1446.3	1465.3	1313.6	1183.3	1050.2	1022.3	951.8	981.1	1042.1	1178.6
50°	1615.0	1613.4	1585.6	1528.9	1370.9	1193.2	1156.7	1075.0	1120.5	1205.4	1414.3
52.5°	1779.6	1749.0	1723.5	1696.3	1570.0	1339.8	1295.1	1197.8	1284.4	1391.1	1701.6
55°	1813.2	1799.6	1831.1	1876.9	1761.9	1492.1	1440.0	1351.7	1468.9	1603.5	2032.9
57.5°	1885.3	1885.1	1950.4	2031.9	1959.4	1653.6	1601.1	1537.7	1676.3	1846.7	2384.6
60°	1933.9	1947.6	2069.0	2227.1	2153.4	1840.2	1791.9	1752.4	1912.3	2118.6	2712.4
62.5°	1959.4	1977.9	2143.5	2306.3	2427.6	2150.9	2102.7	2045.6	2224.4	2416.9	2904.0
65°	1853.5	1889.9	2131.9	2374.8	2667.7	2654.4	2632.8	2532.5	2614.6	2652.6	2834.8
67.5°	1560.3	1597.6	1879.4	2310.9	2839.2	3140.2	3144.8	2973.6	2854.8	2672.8	2383.4
70°	1111.7	1140.9	1374.1	1937.5	2708.6	3457.6	3473.4	3176.8	2806.9	2370.3	1665.2
72.5°	527.8	545.7	766.5	1261.0	2149.4	3168.0	3198.5	2917.3	2386.7	1754.9	908.4
75°	194.0	199.4	259.0	536.5	1246.7	2336.2	2372.3	2091.3	1582.2	873.7	346.0
77.5°	116.3	119.8	145.4	226.4	490.4	1335.4	1388.6	1137.3	691.5	325.2	170.2
80°	81.3	83.8	104.2	140.9	231.7	508.9	556.3	464.2	275.5	205.8	123.8
82.5°	55.0	56.2	73.3	95.2	154.0	181.7	196.1	206.4	185.8	153.1	78.6
85°	36.0	37.3	49.7	62.7	97.9	93.9	96.0	121.5	135.6	104.0	43.6
87.5°	20.6	21.5	29.9	33.5	48.1	39.8	40.2	64.0	86.8	70.2	26.5
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°	502.3	502.3	502.3	502.3	502.3	502.3	502.3	502.3	502.3	502.3	502.3
2.5°	500.4	497.7	491.6	487.8	484.2	483.4	481.9	481.7	481.5	481.5	480.8
5°	489.2	484.6	475.2	469.9	465.5	465.0	464.8	465.9	466.3	466.7	466.1
7.5°	482.1	475.8	464.0	456.4	451.2	449.9	452.0	456.9	460.0	461.3	460.6
10°	477.7	469.9	456.2	448.0	443.6	442.9	445.7	451.4	457.9	460.4	460.2
12.5°	472.7	463.8	449.2	440.6	438.1	439.4	442.9	448.2	455.0	459.0	459.2
15°	467.6	457.3	442.3	434.7	433.7	435.4	438.7	442.7	448.0	452.0	452.4
17.5°	461.5	450.7	435.8	428.0	427.1	428.0	428.2	430.3	433.7	437.5	438.5
20°	455.0	444.0	428.4	420.6	416.8	413.5	409.6	410.1	411.1	415.0	415.8
22.5°	450.3	439.4	422.7	411.9	401.9	391.7	384.2	383.1	383.5	386.7	387.7
25°	450.7	439.2	421.2	402.7	380.6	364.4	354.2	352.6	352.3	354.7	356.2
27.5°	459.0	447.3	426.7	393.2	357.5	333.4	322.7	321.4	319.7	320.4	322.1
30°	477.3	466.5	440.0	383.5	332.3	303.1	291.9	290.6	288.3	287.3	288.5
32.5°	507.1	498.3	459.4	374.2	307.3	277.1	265.8	263.1	261.6	260.4	261.4
35°	556.9	553.1	485.3	364.2	285.2	257.1	246.9	242.7	240.6	242.9	244.6
37.5°	634.8	636.9	519.2	348.4	268.1	243.9	235.2	230.4	227.3	229.2	231.0
40°	745.2	746.7	556.7	326.0	253.4	236.1	226.9	222.4	218.0	214.6	214.4
42.5°	890.1	875.2	593.5	301.8	236.3	231.3	221.0	215.5	208.7	199.4	197.5
45°	1061.9	1009.5	621.5	274.0	217.1	225.4	214.4	206.8	196.3	186.2	185.2
47.5°	1260.0	1153.8	635.2	245.2	199.2	216.7	206.4	194.4	181.1	176.1	175.4
50°	1501.7	1325.0	641.7	217.1	183.7	205.4	194.8	180.7	169.6	168.5	167.9
52.5°	1777.0	1531.0	643.9	194.2	170.8	190.6	185.4	171.7	162.8	163.7	163.7
55°	2065.2	1743.7	615.2	177.5	159.0	175.4	179.0	168.1	160.7	164.1	165.4
57.5°	2329.7	1932.3	525.1	164.7	147.9	163.9	176.7	171.5	166.4	180.1	180.9
60°	2532.7	2043.6	392.1	153.1	139.6	159.8	182.9	184.3	185.6	218.2	222.7
62.5°	2575.3	2006.6	269.6	144.1	135.8	163.3	194.0	194.2	192.7	215.5	218.2
65°	2380.0	1772.1	196.1	139.0	132.7	169.4	203.5	199.0	189.4	206.6	201.5
67.5°	1890.1	1335.2	163.3	135.2	128.1	168.9	213.6	203.5	187.5	202.4	194.2
70°	1226.9	807.3	145.4	132.1	122.6	160.9	219.4	203.1	181.9	188.3	178.6
72.5°	598.6	361.0	133.3	127.5	116.9	149.8	219.2	199.2	176.3	175.9	170.6
75°	234.2	165.4	122.3	120.5	107.2	137.1	213.4	193.8	169.6	162.8	160.9
77.5°	137.1	117.9	108.5	110.2	95.6	124.4	204.7	184.3	160.3	152.3	150.2
80°	99.8	88.3	92.5	95.2	81.7	111.9	193.1	172.7	150.0	154.0	151.0
82.5°	64.0	56.9	75.0	77.7	68.1	99.0	180.5	160.5	135.4	123.0	120.0
85°	32.7	36.0	55.8	59.2	52.5	81.3	165.2	144.3	119.0	102.3	104.0
87.5°	18.3	24.6	35.6	39.8	37.1	62.5	134.0	119.0	97.1	79.0	69.5
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)