

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: P299161

Luminaire Tested: **GLNA-AF-02-LED-E1-T3-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299161
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-02-LED-E1-T3-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8520.6 lumens
Efficiency: N/A
Efficacy: 100.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

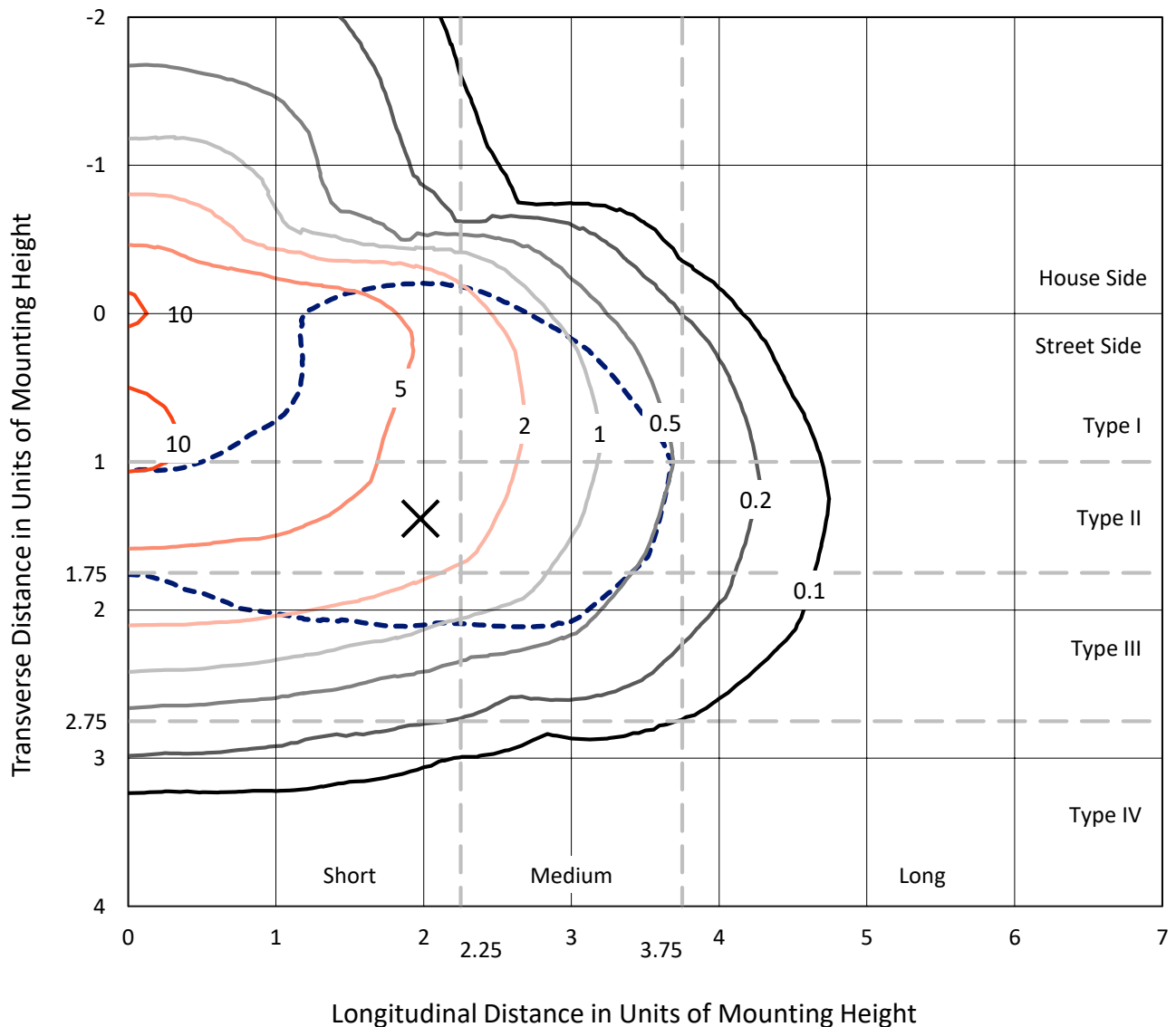
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

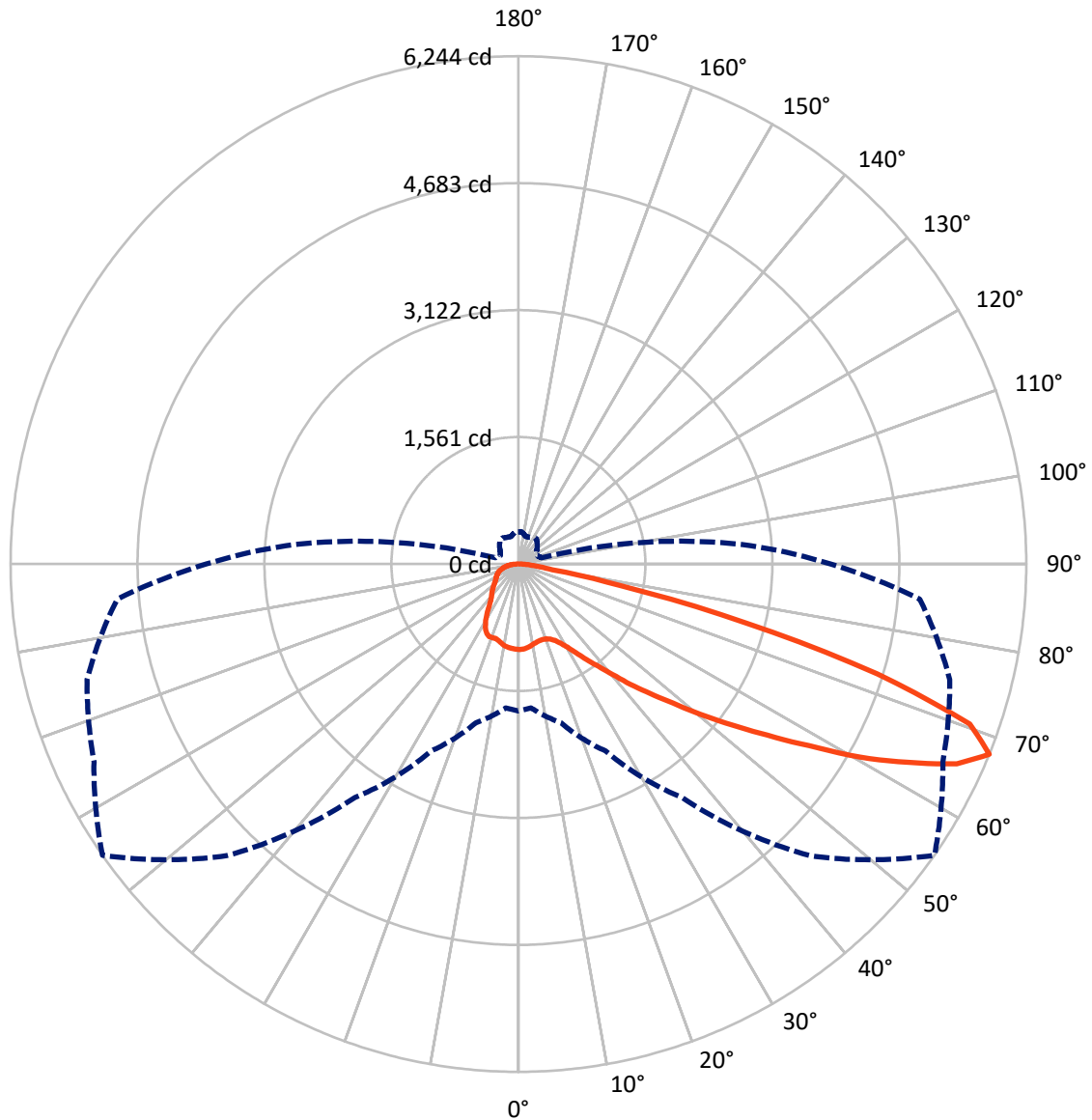
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.8 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1840.6	0.0	1840.6
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	6679.9	0.0	6679.9
	% Fixture	78.4	0.0	78.4
Total	Lumens	8520.6	0.0	8520.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.1	1.2
10°-20°	277.7	3.3
20°-30°	465.3	5.5
30°-40°	765.1	9.0
40°-50°	1287.9	15.1
50°-60°	2027.0	23.8
60°-70°	2419.1	28.4
70°-80°	1038.8	12.2
80°-90°	141.6	1.7
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°	8520.6	100.0
0°-180°	8520.6	100.0



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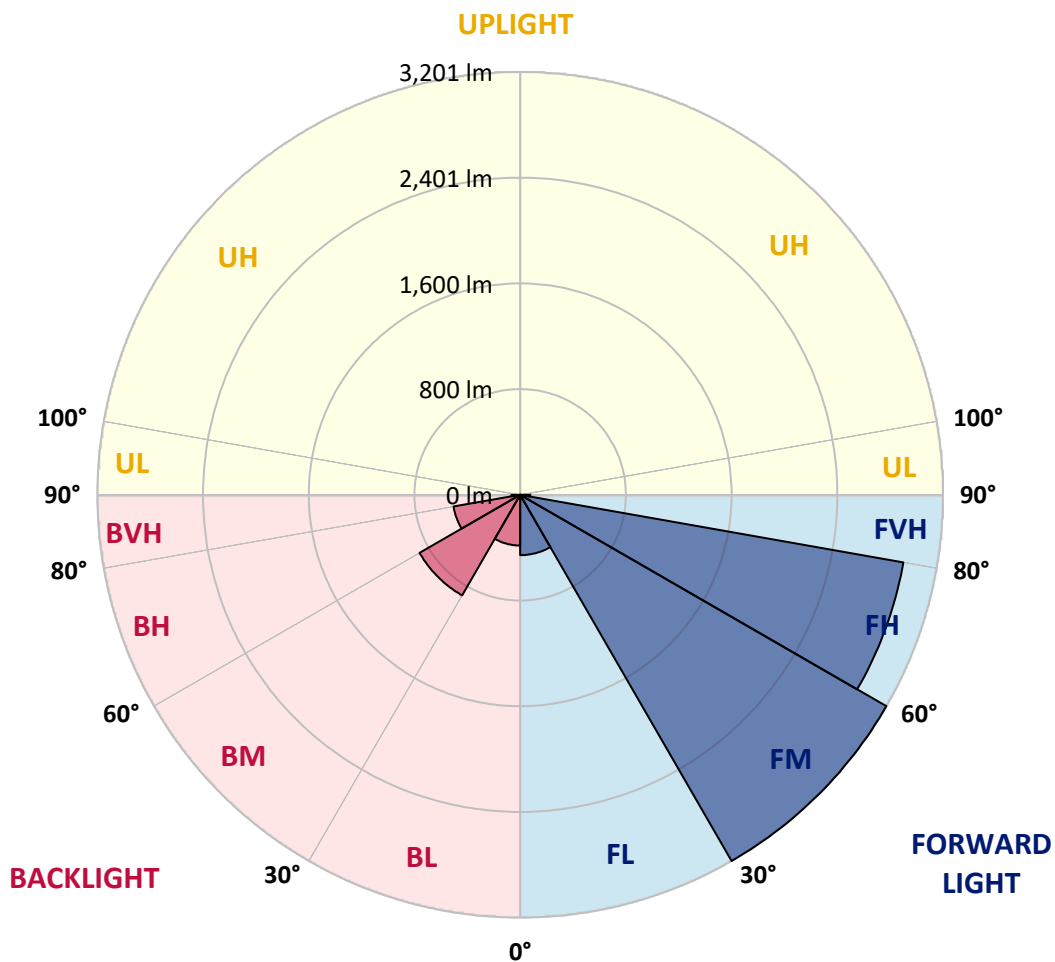
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	456.7	5.4			
FM	(30°-60°)	3201.0	37.6			
FH	(60°-80°)	2945.6	34.6			G2/5000
FVH	(80°-90°)	76.7	0.9			G1/100
BL	(0°-30°)	384.4	4.5	B1/500		
BM	(30°-60°)	879.1	10.3	B1/1000		
BH	(60°-80°)	512.2	6.0	B2/1000		G2/1000
BVH	(80°-90°)	65.0	0.8			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7
2.5°	1041.6	1042.0	1042.9	1046.2	1049.0	1048.2	1048.6	1047.0	1046.6	1044.1	1046.6
5°	1028.5	1029.7	1030.1	1035.5	1038.7	1039.6	1038.3	1036.3	1033.8	1031.3	1032.6
7.5°	998.4	1001.7	1002.1	1009.5	1014.9	1021.9	1022.3	1022.7	1021.5	1019.8	1022.3
10°	979.5	980.3	979.9	985.2	989.4	997.2	1001.7	1009.5	1012.8	1013.6	1015.3
12.5°	978.2	977.4	976.2	976.2	975.0	978.2	986.5	997.6	1005.4	1007.9	1009.9
15°	991.4	991.0	986.9	980.7	972.9	970.4	977.4	989.8	1000.1	1005.4	1007.5
17.5°	1021.0	1018.6	1012.0	998.0	981.1	974.5	975.4	985.7	997.6	1004.6	1006.6
20°	1075.4	1075.4	1061.4	1035.0	1005.0	989.4	982.0	988.1	999.6	1009.1	1012.0
22.5°	1169.2	1170.0	1146.6	1103.4	1052.7	1019.4	1000.9	999.6	1013.2	1023.9	1027.2
25°	1302.1	1298.8	1265.9	1204.2	1127.2	1072.1	1040.0	1032.6	1044.1	1056.0	1060.1
27.5°	1456.9	1444.9	1405.8	1331.4	1231.8	1151.1	1101.7	1089.8	1100.9	1114.5	1118.6
30°	1610.0	1597.6	1551.1	1469.6	1358.9	1256.9	1186.1	1166.7	1182.4	1201.7	1204.2
32.5°	1763.1	1763.1	1711.2	1616.1	1495.6	1383.2	1298.4	1275.4	1301.3	1324.8	1330.1
35°	1946.2	1947.0	1896.8	1782.4	1652.8	1533.8	1440.4	1423.5	1462.6	1479.1	1491.9
37.5°	2171.3	2175.8	2111.2	1973.0	1831.0	1705.9	1594.7	1571.7	1610.8	1655.7	1696.8
40°	2414.5	2420.3	2349.1	2178.7	2036.7	1905.9	1785.7	1744.1	1809.2	1894.8	1947.9
42.5°	2646.7	2676.3	2607.6	2432.2	2279.6	2144.2	2022.3	1961.8	2043.3	2172.6	2218.7
45°	2982.1	3003.5	2883.7	2724.9	2581.2	2429.8	2268.4	2204.7	2318.7	2481.6	2491.1
47.5°	3205.5	3189.5	3128.6	3029.8	2938.9	2797.3	2554.5	2484.5	2636.0	2827.7	2774.7
50°	3324.5	3329.4	3321.2	3326.9	3330.2	3241.3	2905.1	2809.2	2989.9	3221.6	3099.4
52.5°	3435.6	3402.7	3429.8	3564.8	3727.8	3694.9	3286.6	3186.6	3369.3	3658.7	3442.6
55°	3433.1	3382.9	3471.4	3709.7	4063.2	4101.1	3715.0	3599.8	3770.6	4127.4	3806.4
57.5°	3311.7	3314.2	3450.4	3762.4	4297.0	4483.0	4212.2	4039.3	4196.1	4602.3	4138.5
60°	3144.6	3167.3	3363.6	3753.7	4484.2	4796.2	4822.1	4513.0	4613.0	5034.0	4413.4
62.5°	2875.1	2898.9	3169.7	3664.0	4455.8	5097.8	5373.6	5050.5	5048.9	5295.8	4494.1
65°	2449.9	2442.9	2727.3	3328.6	4217.5	5320.9	5921.3	5515.1	5377.3	5299.9	4331.9
67.5°	1806.7	1775.4	2019.5	2535.1	3505.6	5071.1	6243.6	5757.1	5489.2	4951.3	3836.4
70°	937.5	906.2	1103.8	1480.3	2305.5	3957.8	5886.8	5632.0	5241.9	4150.5	3005.5
72.5°	400.8	395.5	475.7	649.4	1115.3	2282.9	4615.9	4874.8	4497.8	3092.4	2066.4
75°	269.6	267.9	298.0	353.9	501.7	926.4	2888.6	3460.3	3290.7	1917.4	1162.2
77.5°	211.5	209.5	227.2	254.3	325.1	365.5	1282.0	1857.7	1719.4	834.6	508.7
80°	165.4	163.8	174.9	189.7	233.8	230.5	421.8	739.1	572.1	319.8	247.3
82.5°	130.5	130.5	139.5	139.9	165.9	157.2	220.2	325.5	285.6	186.4	151.4
85°	119.3	119.3	128.8	104.5	108.2	99.2	136.6	193.0	181.1	76.5	65.8
87.5°	60.1	58.4	108.2	92.6	58.9	52.7	66.7	93.4	100.4	42.4	32.9
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7
2.5°	1045.7	1045.3	1046.2	1046.6	1049.9	1054.4	1056.4	1059.3	1061.0	1060.1
5°	1033.4	1034.2	1037.5	1040.0	1045.7	1053.1	1057.3	1060.6	1063.4	1062.2
7.5°	1023.1	1025.2	1030.1	1032.2	1035.5	1037.5	1037.1	1038.3	1040.8	1037.9
10°	1017.3	1019.8	1023.5	1020.6	1012.8	1001.7	991.4	986.1	987.7	985.7
12.5°	1011.6	1014.9	1012.0	998.4	976.6	962.2	954.4	955.2	958.9	959.7
15°	1008.3	1009.5	997.2	971.7	949.4	947.4	951.5	950.7	951.1	951.1
17.5°	1008.3	1005.0	982.0	956.4	947.0	943.3	930.5	914.5	907.5	905.0
20°	1013.6	1005.0	977.0	960.1	939.6	907.9	874.1	844.5	831.3	827.6
22.5°	1029.7	1014.9	991.0	961.8	903.3	850.3	796.8	761.4	737.5	733.4
25°	1062.2	1045.7	1018.6	940.0	845.7	770.0	709.1	669.6	645.7	642.4
27.5°	1119.0	1108.3	1033.4	891.8	769.2	688.1	631.7	601.3	583.6	582.3
30°	1204.6	1199.2	1026.0	820.6	674.9	608.7	581.5	563.8	550.7	550.2
32.5°	1341.2	1298.0	1001.7	733.8	588.9	552.3	541.2	530.5	520.2	520.2
35°	1517.0	1377.9	955.6	640.8	536.7	521.0	507.0	490.2	476.6	475.7
37.5°	1723.6	1427.2	872.9	565.9	512.0	500.0	479.5	454.3	430.5	426.4
40°	1932.2	1442.1	756.4	519.8	496.3	479.0	453.9	424.3	401.3	400.0
42.5°	2123.6	1413.7	633.0	488.1	480.7	457.6	431.3	405.0	386.9	386.4
45°	2284.1	1340.0	529.2	458.1	464.2	438.3	414.8	393.4	379.4	376.6
47.5°	2435.1	1235.9	456.4	426.4	447.8	427.6	407.8	387.7	374.1	372.0
50°	2610.4	1123.5	405.4	395.5	433.4	423.9	413.6	392.6	370.0	367.5
52.5°	2822.8	1026.4	365.5	368.3	422.2	428.8	428.4	406.6	367.1	363.8
55°	3059.9	918.6	335.4	346.1	417.7	437.9	432.1	419.8	369.6	364.6
57.5°	3293.2	792.6	314.4	329.2	411.1	437.1	414.4	396.7	375.3	368.3
60°	3468.1	623.5	298.4	314.4	396.7	423.5	395.1	371.6	374.1	368.7
62.5°	3479.6	481.9	279.0	301.7	374.9	409.9	382.3	360.5	379.4	374.5
65°	3275.1	364.2	260.5	286.4	351.5	401.3	370.0	354.3	390.6	385.2
67.5°	2757.4	293.0	244.9	270.8	328.0	383.2	358.9	348.6	400.4	391.0
70°	1990.7	249.8	229.6	251.9	307.0	362.6	349.0	338.3	373.7	358.9
72.5°	1225.6	216.5	212.4	226.8	291.0	341.2	334.2	318.9	336.6	324.7
75°	612.0	187.7	193.0	202.1	268.3	316.9	309.5	294.3	296.7	294.3
77.5°	293.0	160.5	170.4	177.4	239.1	289.3	281.5	265.9	263.0	263.4
80°	185.6	134.2	143.6	148.6	213.6	257.2	249.4	233.8	266.7	247.3
82.5°	116.1	109.1	111.5	120.6	186.0	223.9	213.6	199.6	240.3	190.1
85°	64.2	76.1	79.4	87.2	143.2	187.3	177.0	159.3	142.8	140.3
87.5°	38.3	45.3	46.5	52.3	96.3	135.4	119.8	113.6	94.2	93.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)