

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: P301206

Luminaire Tested: **GLNA-AF-02-LED-E1-T3R-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301206
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194839)
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-T3R-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7101.8 lumens
Efficiency: N/A
Efficacy: 107.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B1 - U0 - G2

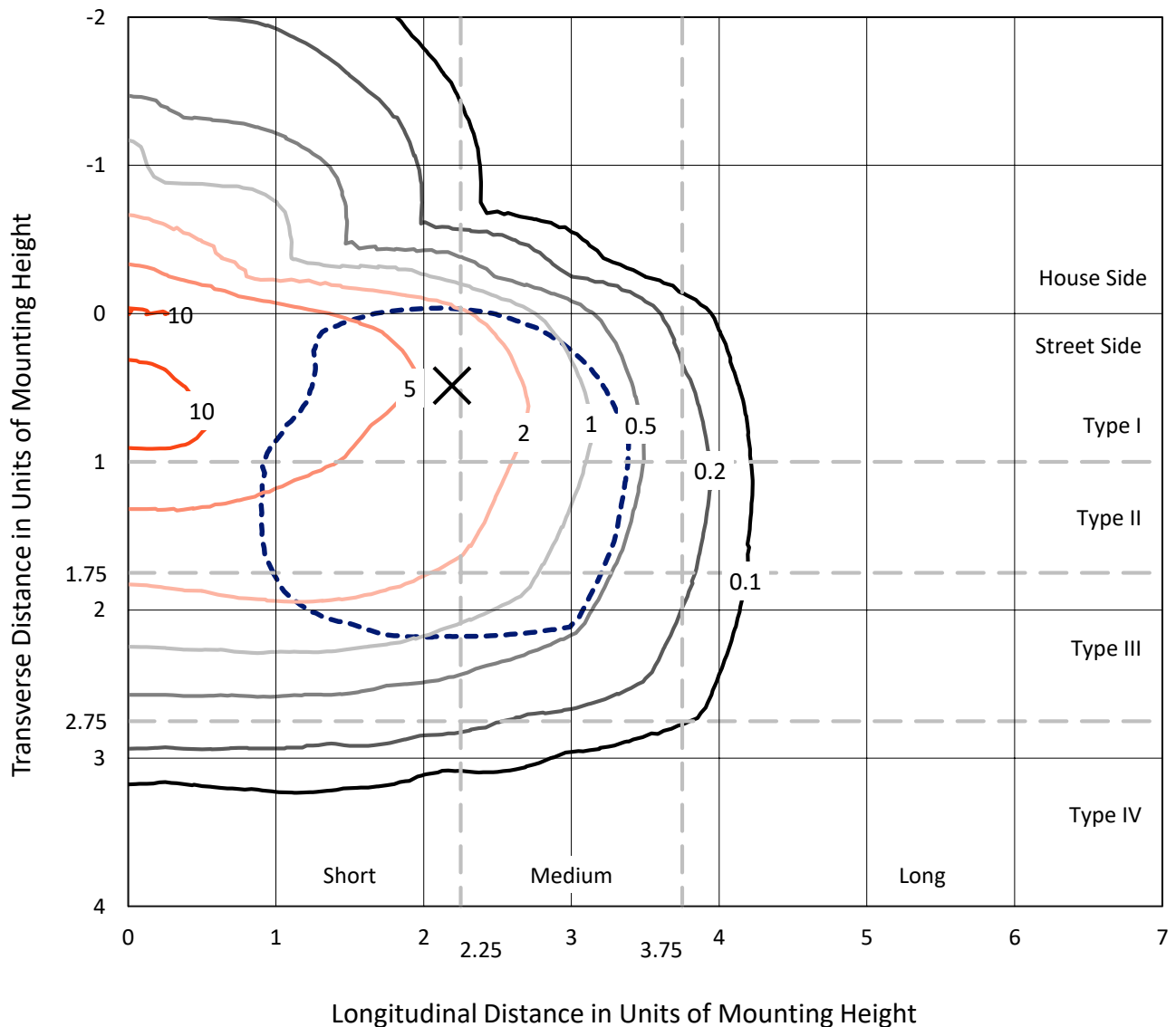
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

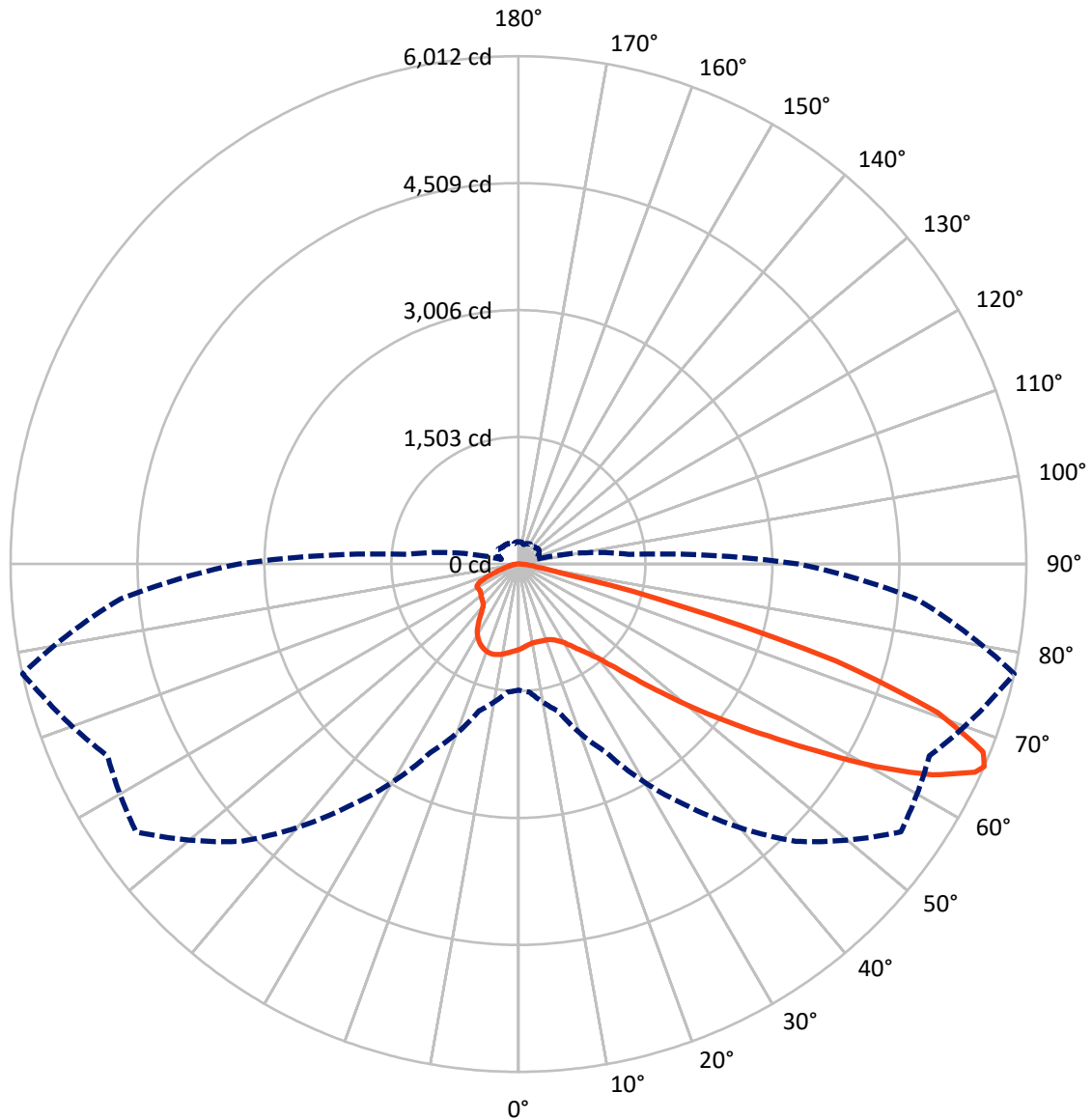
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.5 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1213.3	0.0	1213.3
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	5888.5	0.0	5888.5
	% Fixture	82.9	0.0	82.9
Total	Lumens	7101.8	0.0	7101.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.4	1.3
10°-20°	255.1	3.6
20°-30°	435.3	6.1
30°-40°	696.9	9.8
40°-50°	1076.6	15.2
50°-60°	1527.1	21.5
60°-70°	2042.8	28.8
70°-80°	887.1	12.5
80°-90°	90.5	1.3
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°	7101.8	100.0
0°-180°	7101.8	100.0



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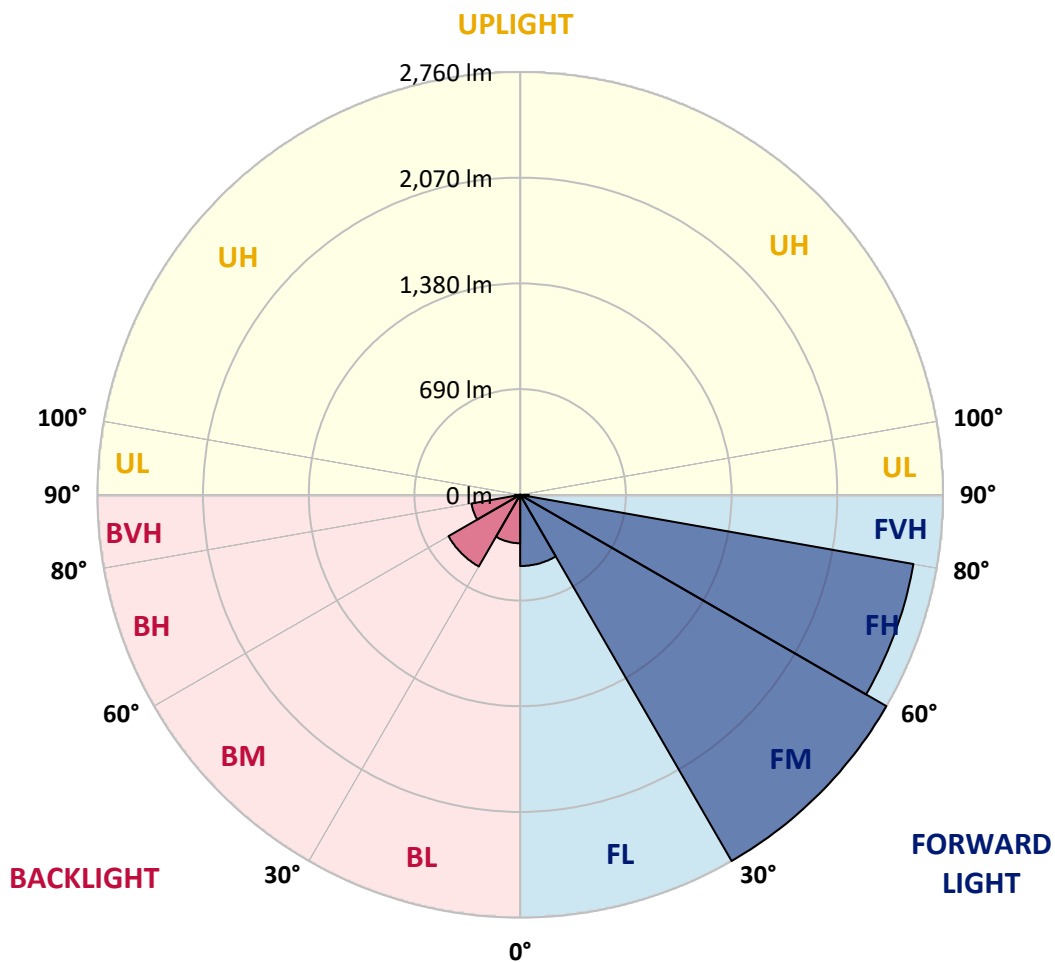
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	464.8	6.5			
FM	(30°-60°)	2760.1	38.9			
FH	(60°-80°)	2606.8	36.7			G2/5000
FVH	(80°-90°)	56.7	0.8			G1/100
BL	(0°-30°)	316.0	4.4	B1/500		
BM	(30°-60°)	540.5	7.6	B1/1000		
BH	(60°-80°)	323.1	4.5	B1/500		G1/500
BVH	(80°-90°)	33.7	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	1012.0	1012.0	1012.0	1012.0	1012.0	1012.0	1012.0	1012.0	1012.0	1012.0	1012.0
2.5°	895.3	901.3	906.4	911.0	920.4	935.8	953.6	968.0	988.9	992.9	1004.0
5°	813.1	813.1	817.1	824.2	836.9	860.0	884.2	916.4	961.7	972.4	1002.0
7.5°	773.2	773.5	775.8	781.8	792.9	814.0	840.5	878.5	939.9	957.7	1008.0
10°	787.9	784.6	779.5	776.5	778.2	790.5	815.7	858.0	926.5	949.2	1021.5
12.5°	870.4	864.1	846.6	823.5	801.3	792.3	807.0	848.3	920.8	947.3	1039.3
15°	1005.3	1002.7	970.1	922.1	868.5	823.5	813.4	844.6	921.4	949.7	1060.4
17.5°	1174.5	1170.7	1127.9	1058.1	970.5	882.9	835.9	847.6	923.7	953.6	1080.8
20°	1345.3	1333.8	1287.6	1204.4	1091.9	963.7	873.1	855.4	926.8	958.0	1102.4
22.5°	1472.8	1463.3	1421.8	1340.9	1211.4	1057.3	923.1	868.8	936.5	970.8	1128.8
25°	1584.9	1585.5	1544.2	1466.1	1332.2	1156.7	987.5	904.6	961.3	996.9	1165.0
27.5°	1723.4	1715.4	1676.8	1599.3	1451.7	1257.0	1065.4	954.0	998.3	1034.2	1212.7
30°	1889.1	1883.5	1838.8	1751.0	1584.1	1364.7	1154.3	1011.3	1046.0	1083.2	1275.1
32.5°	2084.1	2081.5	2035.1	1922.1	1737.1	1491.6	1258.7	1087.2	1117.1	1155.7	1364.7
35°	2313.0	2313.3	2258.7	2122.7	1904.6	1639.2	1377.1	1184.9	1203.6	1243.9	1471.5
37.5°	2453.9	2471.0	2450.6	2312.0	2094.2	1804.3	1530.8	1314.4	1302.3	1342.9	1585.9
40°	2484.1	2504.9	2569.7	2499.2	2306.3	1986.2	1667.0	1438.9	1423.8	1473.4	1733.2
42.5°	2441.8	2470.7	2607.7	2657.2	2531.5	2210.3	1850.2	1623.8	1604.7	1671.4	1916.4
45°	2416.6	2438.2	2596.6	2739.5	2726.7	2463.7	2083.5	1855.9	1848.9	1936.5	2127.8
47.5°	2373.1	2392.6	2544.9	2758.6	2841.5	2695.8	2363.7	2139.9	2153.6	2268.4	2366.4
50°	2396.5	2404.6	2487.2	2710.0	2874.8	2866.0	2676.7	2468.7	2515.7	2659.0	2636.5
52.5°	2393.2	2414.0	2480.5	2630.1	2879.1	2971.1	2985.1	2835.4	2934.5	3098.9	2936.1
55°	1934.9	1973.1	2401.6	2610.0	2894.5	3074.0	3259.6	3222.0	3406.5	3598.1	3274.3
57.5°	1847.6	1871.8	2109.3	2652.3	2976.4	3270.7	3564.9	3647.5	3956.2	4178.7	3686.4
60°	1830.4	1860.3	2106.3	2704.0	3142.5	3591.1	4017.7	4162.6	4625.0	4868.6	4164.3
62.5°	1777.1	1809.3	2086.4	2697.2	3378.4	4034.4	4597.2	4710.3	5259.2	5496.1	4564.0
65°	1608.0	1638.2	1925.1	2588.9	3537.5	4507.6	5283.0	5212.3	5759.9	5938.0	4763.2
66°	1492.2	1521.8	1797.9	2461.3	3500.5	4641.8	5526.0	5367.6	5871.9	6011.5	4724.3
67.5°	1280.5	1303.6	1550.9	2175.8	3304.2	4679.4	5730.3	5484.3	5883.6	5933.0	4501.9
70°	809.0	815.7	1008.0	1501.9	2501.3	4058.2	5419.2	5194.5	5398.5	5264.9	3774.0
72.5°	351.0	348.7	483.9	764.0	1416.1	2723.1	4383.7	4286.1	4234.8	3930.1	2641.9
75°	195.3	198.0	251.4	354.7	575.5	1337.6	2867.6	2744.2	2317.0	1977.1	1198.0
77.5°	156.7	160.4	208.4	251.7	258.4	466.4	1341.9	1091.9	657.3	527.5	332.8
80°	123.8	130.6	181.9	196.0	174.1	192.2	433.5	346.7	260.1	238.6	172.5
82.5°	97.9	102.7	156.1	148.3	121.8	129.5	207.7	202.4	169.2	154.0	99.7
85°	70.5	79.1	128.2	111.8	79.9	87.3	137.9	132.2	96.9	79.1	44.0
87.5°	28.9	37.6	90.6	74.2	44.6	40.6	68.8	64.7	45.9	33.5	21.8
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°	1012.0	1012.0	1012.0	1012.0	1012.0	1012.0	1012.0	1012.0	1012.0	1012.0	1012.0
2.5°	1011.0	1019.0	1029.5	1035.9	1039.3	1041.6	1045.3	1045.0	1046.0	1046.3	1047.6
5°	1017.7	1031.1	1046.3	1050.3	1050.3	1046.6	1042.9	1036.8	1034.5	1033.9	1034.5
7.5°	1035.2	1049.9	1063.0	1058.4	1048.3	1033.5	1014.4	997.6	988.6	985.5	984.9
10°	1057.3	1075.1	1080.5	1062.7	1033.2	997.6	959.7	932.2	916.4	912.1	910.7
12.5°	1084.2	1100.9	1093.6	1056.0	1001.3	944.0	891.5	847.6	814.7	804.4	803.7
15°	1113.7	1126.8	1100.9	1035.2	953.6	869.1	775.8	700.0	659.1	646.0	645.0
17.5°	1141.3	1148.0	1096.6	998.9	883.5	746.7	622.8	564.4	550.4	553.7	554.3
20°	1164.7	1164.7	1081.8	946.9	773.2	585.2	507.0	506.1	516.1	526.2	528.2
22.5°	1190.5	1175.1	1056.0	873.5	616.7	478.8	467.5	476.8	488.2	499.3	501.0
25°	1222.4	1183.5	1020.1	762.1	484.8	434.8	439.2	446.9	452.6	459.7	460.8
27.5°	1258.0	1194.2	972.8	608.7	420.8	407.4	410.8	413.4	412.7	415.4	416.0
30°	1300.6	1206.7	908.0	475.8	394.3	383.8	377.8	375.5	375.5	379.9	381.5
32.5°	1357.7	1225.1	815.0	407.7	381.5	367.1	347.7	338.9	342.3	357.0	360.4
35°	1420.5	1244.9	689.3	384.6	378.9	359.4	329.2	313.0	313.4	327.2	331.5
37.5°	1488.8	1270.1	551.3	380.2	384.9	359.8	319.4	297.3	288.2	288.2	290.0
40°	1576.4	1295.9	446.3	383.2	397.7	363.7	314.5	284.9	259.4	260.1	261.4
42.5°	1690.5	1318.1	389.9	389.5	413.1	369.1	314.0	268.4	246.3	261.4	275.1
45°	1817.4	1329.1	365.0	395.3	425.5	372.5	308.8	265.8	248.0	292.9	319.1
47.5°	1963.3	1322.7	351.3	397.3	428.5	372.5	302.7	272.2	259.7	339.2	369.8
50°	2123.4	1304.3	337.9	393.3	427.5	371.8	308.4	278.5	264.1	347.3	368.4
52.5°	2311.7	1288.9	323.8	384.6	420.4	368.1	315.1	275.8	250.3	315.8	330.5
55°	2526.4	1293.3	308.0	372.2	409.3	361.1	312.7	265.1	235.9	278.2	287.2
57.5°	2800.9	1345.3	289.3	356.4	394.3	349.3	304.4	260.1	231.5	252.4	257.8
60°	3107.2	1435.8	265.8	340.6	375.5	330.5	298.0	262.4	233.6	250.3	253.0
62.5°	3332.1	1488.5	245.7	317.4	350.0	309.7	290.0	265.4	239.0	257.4	256.7
65°	3393.1	1402.0	220.5	283.6	315.5	287.9	279.8	268.7	241.3	263.0	260.1
66°	3307.6	1308.7	209.4	267.8	298.0	277.2	274.8	268.4	240.3	263.8	258.7
67.5°	3099.9	1117.4	190.3	244.7	270.2	261.1	266.8	265.4	237.5	263.0	256.0
70°	2528.1	762.4	162.8	203.7	224.8	229.8	251.4	254.7	228.8	251.4	235.9
72.5°	1766.4	464.4	144.0	158.1	181.9	196.0	230.2	239.9	217.1	219.5	204.7
75°	853.6	246.7	130.6	122.5	141.2	163.8	204.7	219.8	198.6	183.6	178.2
77.5°	266.1	150.7	110.7	98.7	110.7	132.2	171.1	192.6	176.9	153.7	151.7
80°	143.0	110.7	85.2	79.1	87.6	103.7	134.5	160.7	152.0	137.9	123.1
82.5°	94.3	71.8	63.1	61.4	66.8	79.1	100.0	133.2	133.2	118.2	86.0
85°	48.7	44.0	43.3	43.3	46.6	52.7	68.1	102.7	109.4	62.4	51.7
87.5°	24.2	25.2	23.5	24.5	26.2	25.8	32.5	51.7	61.8	37.9	31.5
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)