

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: P299164

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299164
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-T3-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9806.8 lumens
Efficiency: N/A
Efficacy: 115.4 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

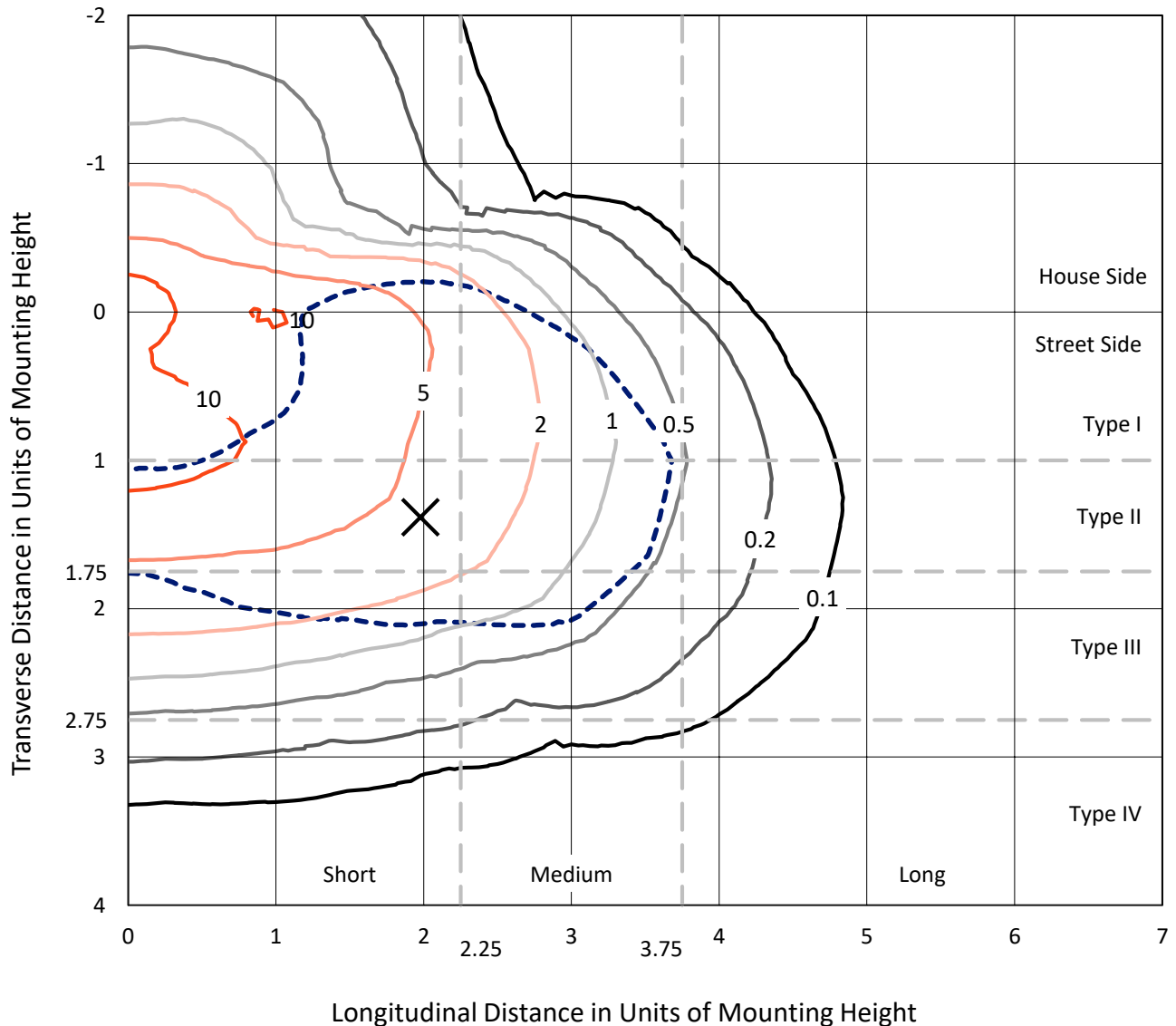
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

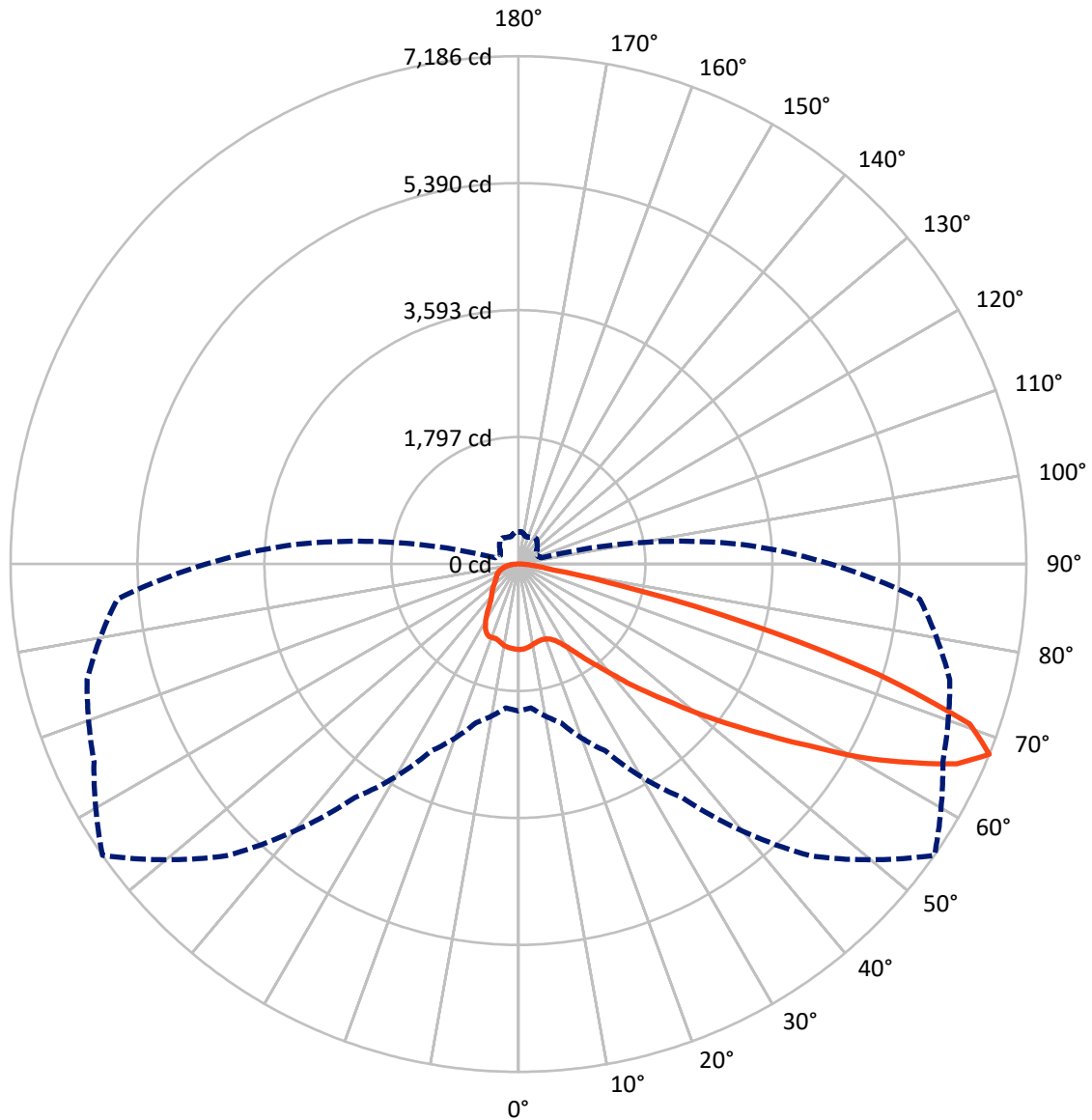
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.5 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	2118.5	0.0	2118.5
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	7688.4	0.0	7688.4
	% Fixture	78.4	0.0	78.4
Total	Lumens	9806.8	0.0	9806.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.9	1.2
10°-20°	319.7	3.3
20°-30°	535.5	5.5
30°-40°	880.6	9.0
40°-50°	1482.3	15.1
50°-60°	2333.0	23.8
60°-70°	2784.2	28.4
70°-80°	1195.6	12.2
80°-90°	163.0	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°	9806.8	100.0
0°-180°	9806.8	100.0



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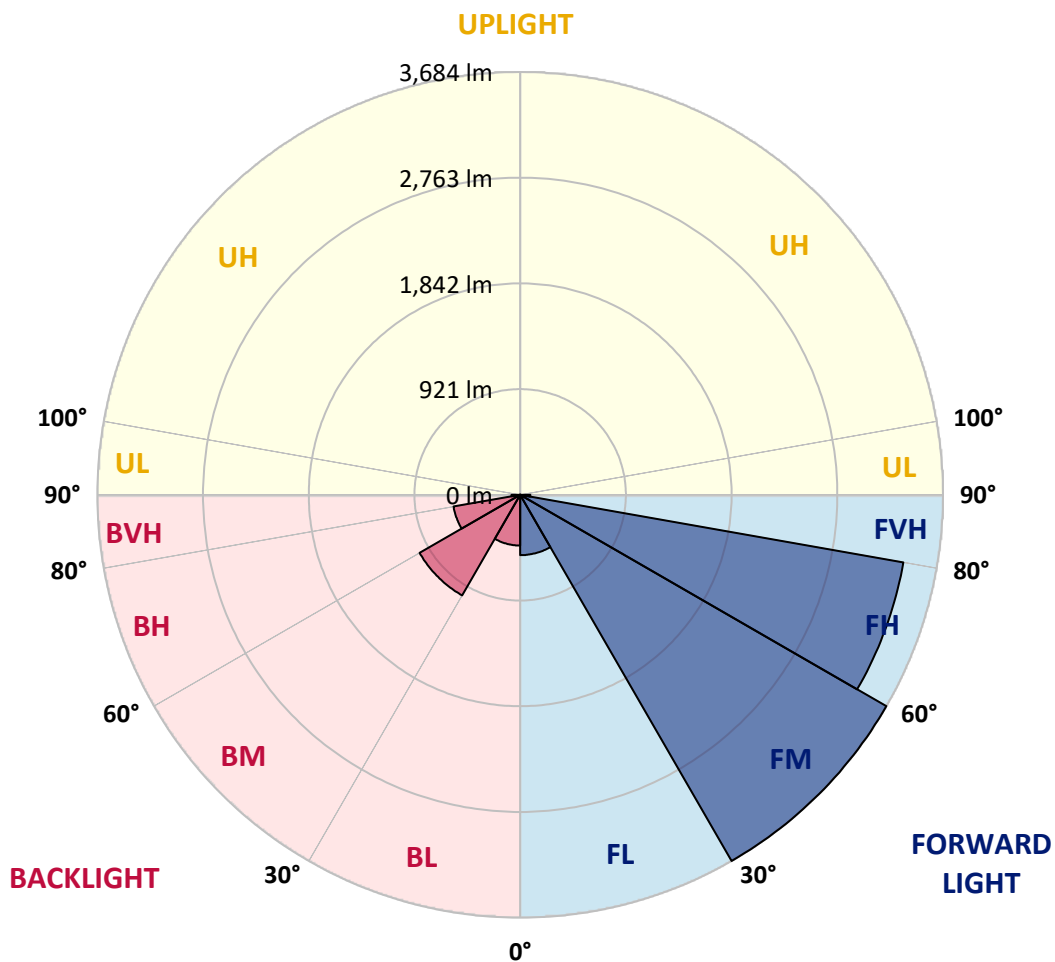
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	525.7	5.4			
FM	(30°-60°)	3684.2	37.6			
FH	(60°-80°)	3390.3	34.6			G2/5000
FVH	(80°-90°)	88.2	0.9			G1/100
BL	(0°-30°)	442.4	4.5	B1/500		
BM	(30°-60°)	1011.8	10.3	B2/2500		
BH	(60°-80°)	589.6	6.0	B2/1000		G2/1000
BVH	(80°-90°)	74.8	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°	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3
2.5°	1198.9	1199.3	1200.3	1204.1	1207.4	1206.5	1206.9	1205.0	1204.6	1201.7	1204.6
5°	1183.7	1185.1	1185.6	1191.8	1195.6	1196.5	1195.1	1192.7	1189.9	1187.0	1188.5
7.5°	1149.1	1152.9	1153.4	1161.9	1168.1	1176.1	1176.6	1177.1	1175.7	1173.8	1176.6
10°	1127.3	1128.3	1127.8	1134.0	1138.7	1147.7	1152.9	1161.9	1165.7	1166.7	1168.6
12.5°	1125.9	1125.0	1123.6	1123.6	1122.1	1125.9	1135.4	1148.2	1157.2	1160.0	1162.4
15°	1141.1	1140.6	1135.9	1128.8	1119.8	1116.9	1125.0	1139.2	1151.0	1157.2	1159.6
17.5°	1175.2	1172.3	1164.8	1148.7	1129.2	1121.7	1122.6	1134.5	1148.2	1156.2	1158.6
20°	1237.7	1237.7	1221.6	1191.3	1156.7	1138.7	1130.2	1137.3	1150.6	1161.5	1164.8
22.5°	1345.7	1346.7	1319.7	1269.9	1211.7	1173.3	1152.0	1150.6	1166.2	1178.5	1182.3
25°	1498.7	1494.9	1457.0	1386.0	1297.4	1233.9	1197.0	1188.5	1201.7	1215.4	1220.2
27.5°	1676.8	1663.1	1618.1	1532.3	1417.7	1324.9	1268.0	1254.3	1267.1	1282.7	1287.4
30°	1853.0	1838.8	1785.3	1691.5	1564.1	1446.6	1365.1	1342.9	1360.9	1383.1	1386.0
32.5°	2029.2	2029.2	1969.5	1860.1	1721.3	1592.0	1494.4	1467.9	1497.8	1524.8	1530.9
35°	2240.0	2241.0	2183.2	2051.5	1902.3	1765.4	1657.9	1638.4	1683.4	1702.4	1717.1
37.5°	2499.1	2504.3	2430.0	2270.8	2107.4	1963.4	1835.5	1809.0	1854.0	1905.6	1953.0
40°	2779.1	2785.7	2703.7	2507.6	2344.2	2193.6	2055.3	2007.4	2082.3	2180.8	2241.9
42.5°	3046.2	3080.3	3001.2	2799.4	2623.7	2467.8	2327.6	2258.0	2351.8	2500.5	2553.6
45°	3432.2	3456.9	3319.0	3136.2	2970.9	2796.6	2610.9	2537.5	2668.7	2856.3	2867.2
47.5°	3689.5	3671.0	3600.9	3487.2	3382.5	3219.6	2940.1	2859.6	3033.9	3254.6	3193.5
50°	3826.3	3832.0	3822.6	3829.2	3833.0	3730.7	3343.7	3233.3	3441.2	3707.9	3567.2
52.5°	3954.2	3916.3	3947.6	4103.0	4290.5	4252.7	3782.8	3667.7	3878.0	4211.0	3962.3
55°	3951.4	3893.6	3995.4	4269.7	4676.6	4720.2	4275.9	4143.2	4339.8	4750.5	4381.0
57.5°	3811.7	3814.5	3971.3	4330.3	4945.6	5159.7	4848.1	4649.1	4829.6	5297.1	4763.3
60°	3619.4	3645.4	3871.3	4320.4	5161.2	5520.2	5550.0	5194.3	5309.4	5794.0	5079.7
62.5°	3309.1	3336.6	3648.2	4217.1	5128.5	5867.4	6184.8	5812.9	5811.0	6095.2	5172.5
65°	2819.8	2811.7	3139.0	3831.1	4854.2	6124.1	6815.2	6347.7	6189.0	6100.0	4985.9
67.5°	2079.4	2043.4	2324.3	2917.8	4034.8	5836.6	7186.1	6626.2	6317.9	5698.8	4415.6
70°	1079.0	1043.0	1270.4	1703.8	2653.5	4555.3	6775.4	6482.2	6033.2	4777.0	3459.2
72.5°	461.4	455.2	547.6	747.5	1283.7	2627.5	5312.7	5610.7	5176.8	3559.2	2378.3
75°	310.3	308.4	342.9	407.4	577.4	1066.2	3324.7	3982.7	3787.5	2206.9	1337.7
77.5°	243.5	241.1	261.5	292.7	374.2	420.6	1475.5	2138.2	1979.0	960.6	585.5
80°	190.4	188.5	201.3	218.4	269.0	265.3	485.5	850.7	658.4	368.0	284.7
82.5°	150.2	150.2	160.6	161.0	190.9	180.9	253.4	374.7	328.7	214.6	174.3
85°	137.4	137.4	148.3	120.3	124.6	114.2	157.3	222.2	208.4	88.1	75.8
87.5°	69.2	67.3	124.6	106.6	67.7	60.6	76.7	107.5	115.6	48.8	37.9
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°	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3
2.5°	1203.6	1203.1	1204.1	1204.6	1208.3	1213.6	1215.9	1219.2	1221.1	1220.2
5°	1189.4	1190.3	1194.1	1197.0	1203.6	1212.1	1216.9	1220.7	1224.0	1222.6
7.5°	1177.6	1179.9	1185.6	1188.0	1191.8	1194.1	1193.7	1195.1	1197.9	1194.6
10°	1170.9	1173.8	1178.0	1174.7	1165.7	1152.9	1141.1	1134.9	1136.8	1134.5
12.5°	1164.3	1168.1	1164.8	1149.1	1124.0	1107.5	1098.5	1099.4	1103.7	1104.6
15°	1160.5	1161.9	1147.7	1118.3	1092.8	1090.4	1095.1	1094.2	1094.7	1094.7
17.5°	1160.5	1156.7	1130.2	1100.8	1089.9	1085.7	1071.0	1052.5	1044.5	1041.6
20°	1166.7	1156.7	1124.5	1105.1	1081.4	1044.9	1006.1	972.0	956.8	952.6
22.5°	1185.1	1168.1	1140.6	1107.0	1039.7	978.6	917.0	876.3	848.8	844.1
25°	1222.6	1203.6	1172.3	1081.9	973.4	886.2	816.1	770.7	743.2	739.4
27.5°	1287.9	1275.6	1189.4	1026.5	885.3	792.0	727.1	692.0	671.7	670.3
30°	1386.4	1380.3	1180.9	944.5	776.8	700.6	669.3	648.9	633.8	633.3
32.5°	1543.7	1494.0	1152.9	844.6	677.8	635.7	622.9	610.6	598.7	598.7
35°	1746.0	1585.9	1099.9	737.5	617.7	599.7	583.6	564.1	548.5	547.6
37.5°	1983.8	1642.7	1004.7	651.3	589.3	575.5	551.8	522.9	495.5	490.7
40°	2223.9	1659.8	870.6	598.3	571.3	551.4	522.5	488.4	461.8	460.4
42.5°	2444.2	1627.1	728.5	561.8	553.3	526.7	496.4	466.1	445.3	444.8
45°	2628.9	1542.3	609.1	527.2	534.3	504.5	477.5	452.8	436.7	433.4
47.5°	2802.7	1422.4	525.3	490.7	515.4	492.1	469.4	446.2	430.6	428.2
50°	3004.5	1293.1	466.6	455.2	498.8	487.9	476.0	451.9	425.8	423.0
52.5°	3248.9	1181.3	420.6	423.9	486.0	493.6	493.1	468.0	422.5	418.7
55°	3521.8	1057.2	386.0	398.4	480.8	504.0	497.4	483.1	425.4	419.7
57.5°	3790.3	912.3	361.9	378.9	473.2	503.0	477.0	456.6	432.0	423.9
60°	3991.7	717.6	343.4	361.9	456.6	487.4	454.7	427.7	430.6	424.4
62.5°	4004.9	554.7	321.2	347.2	431.5	471.8	440.0	414.9	436.7	431.0
65°	3769.5	419.2	299.8	329.7	404.5	461.8	425.8	407.8	449.5	443.4
67.5°	3173.6	337.3	281.8	311.7	377.5	441.0	413.0	401.2	460.9	450.0
70°	2291.2	287.5	264.3	289.9	353.4	417.3	401.7	389.4	430.1	413.0
72.5°	1410.6	249.2	244.4	261.0	334.9	392.7	384.6	367.1	387.5	373.7
75°	704.4	216.0	222.2	232.6	308.8	364.7	356.2	338.7	341.5	338.7
77.5°	337.3	184.7	196.1	204.2	275.2	333.0	324.0	306.0	302.7	303.2
80°	213.6	154.4	165.3	171.0	245.8	296.0	287.0	269.0	306.9	284.7
82.5°	133.6	125.5	128.4	138.8	214.1	257.7	245.8	229.7	276.6	218.8
85°	73.9	87.6	91.4	100.4	164.8	215.5	203.7	183.3	164.4	161.5
87.5°	44.1	52.1	53.5	60.2	110.8	155.8	137.8	130.7	108.5	108.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)