

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: P302828

Luminaire Tested: **GLNA-AF-02-LED-E1-T4W-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302828
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-02-LED-E1-T4W-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 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: 8459.7 lumens
Efficiency: N/A
Efficacy: 99.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

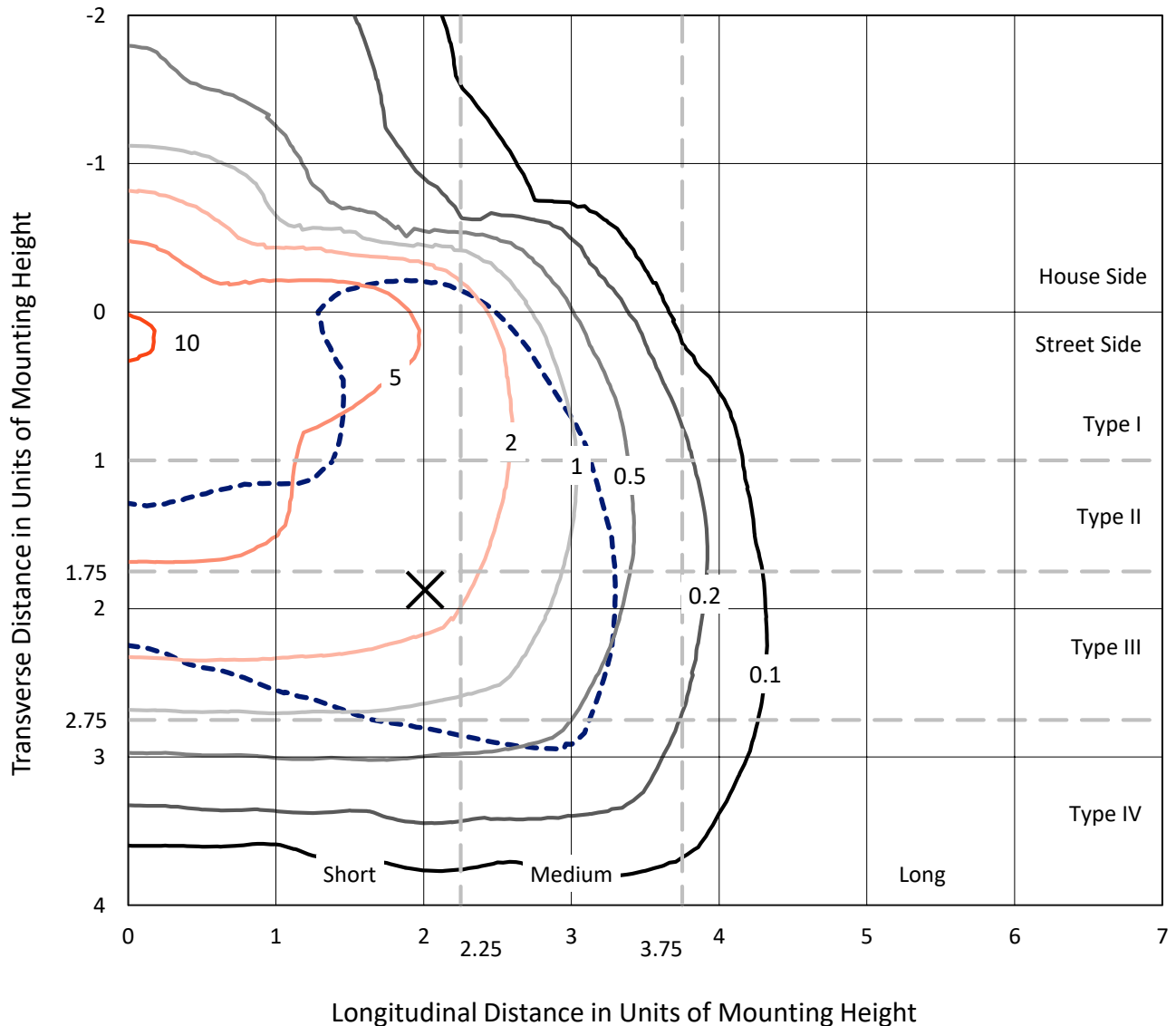
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

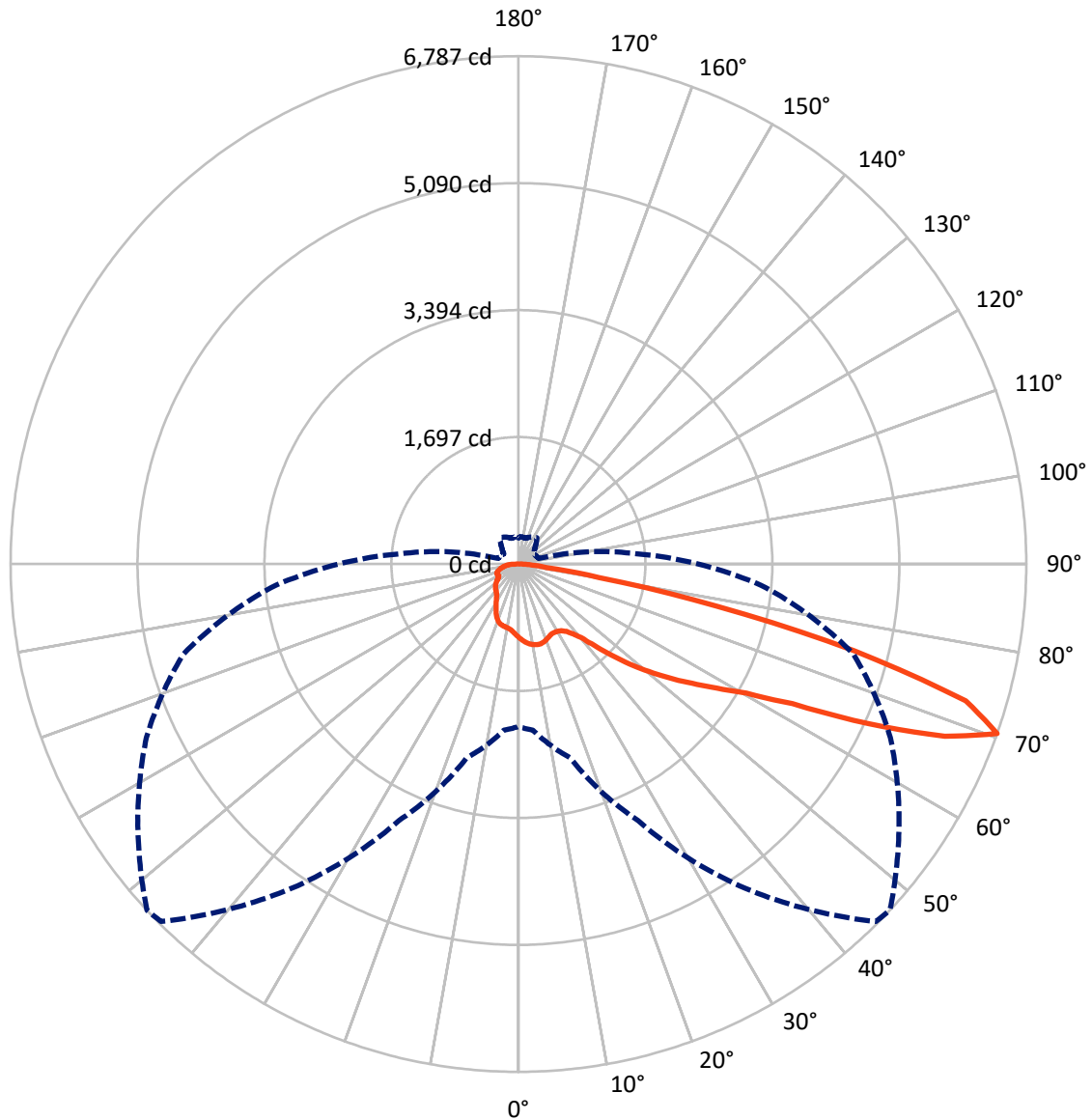
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.3 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	1764.9	0.0	1764.9
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	6694.8	0.0	6694.8
	% Fixture	79.1	0.0	79.1
Total	Lumens	8459.7	0.0	8459.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.1	1.1
10°-20°	275.9	3.3
20°-30°	407.5	4.8
30°-40°	592.3	7.0
40°-50°	1065.8	12.6
50°-60°	1846.4	21.8
60°-70°	2635.4	31.2
70°-80°	1352.9	16.0
80°-90°	189.4	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°	8459.7	100.0
0°-180°	8459.7	100.0

Coefficient of Utilization



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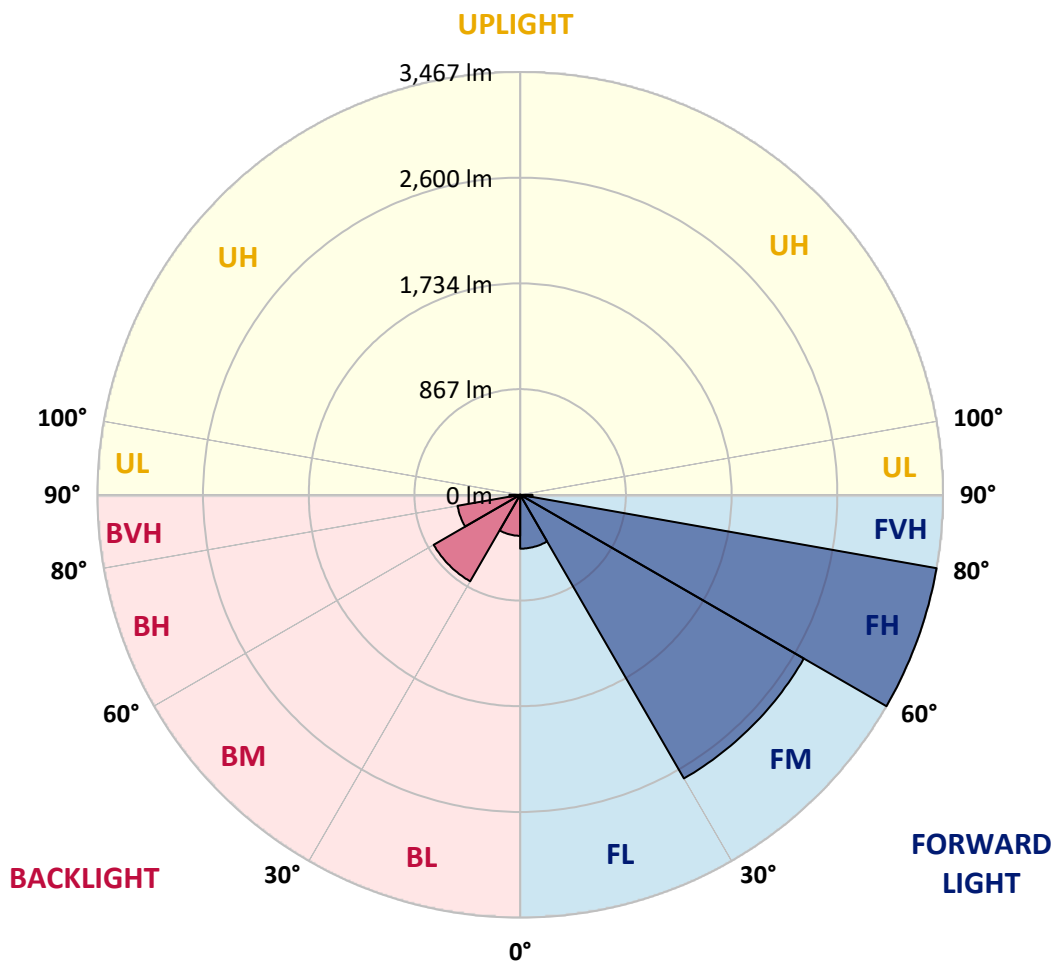
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	441.4	5.2			
FM	(30°-60°)	2685.3	31.7			
FH	(60°-80°)	3467.0	41.0			G2/5000
FVH	(80°-90°)	101.1	1.2			G2/225
BL	(0°-30°)	336.0	4.0	B1/500		
BM	(30°-60°)	819.2	9.7	B1/1000		
BH	(60°-80°)	521.3	6.2	B2/1000		G2/1000
BVH	(80°-90°)	88.3	1.0			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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	981.6	981.6	981.6	981.6	981.6	981.6	981.6	981.6	981.6	981.6	981.6
2.5°	1039.2	1037.2	1036.4	1034.7	1032.7	1022.3	1020.2	1012.9	1002.6	991.8	980.7
5°	1107.6	1107.2	1102.5	1094.3	1081.2	1058.5	1053.2	1035.1	1010.8	987.3	963.9
7.5°	1167.6	1163.9	1155.3	1138.8	1115.8	1084.9	1077.5	1052.4	1019.0	986.9	955.2
10°	1211.6	1209.6	1190.7	1168.0	1137.9	1103.8	1095.2	1067.1	1030.5	989.8	950.3
12.5°	1236.8	1232.7	1210.8	1183.7	1147.9	1114.6	1105.8	1077.5	1036.4	989.8	943.3
15°	1235.1	1232.3	1210.4	1180.7	1144.6	1115.4	1107.6	1079.2	1035.1	985.7	934.3
17.5°	1202.2	1203.4	1185.0	1155.7	1126.0	1103.8	1096.8	1070.5	1026.8	977.5	923.6
20°	1144.6	1150.4	1137.9	1112.1	1095.6	1080.4	1075.9	1053.6	1014.1	965.6	912.0
22.5°	1087.0	1092.3	1087.4	1065.5	1063.0	1054.0	1051.5	1035.6	1003.0	958.2	905.0
25°	1044.6	1049.5	1048.7	1029.7	1037.2	1036.8	1034.7	1026.8	1000.6	958.2	906.2
27.5°	1033.1	1034.7	1033.1	1015.7	1026.0	1034.3	1032.7	1031.3	1007.9	970.1	922.0
30°	1072.6	1070.1	1057.3	1022.3	1031.9	1043.3	1041.7	1042.5	1030.1	1001.4	957.0
32.5°	1230.2	1219.0	1178.7	1080.4	1055.2	1061.4	1062.2	1075.9	1077.9	1049.5	1011.2
35°	1466.0	1453.7	1401.3	1235.9	1128.1	1106.8	1106.8	1127.3	1139.6	1118.7	1095.6
37.5°	1715.9	1702.2	1674.3	1451.6	1281.2	1185.4	1183.3	1197.7	1215.3	1220.4	1226.1
40°	1999.8	1985.4	1993.2	1693.6	1494.8	1321.5	1292.3	1282.0	1329.7	1361.4	1407.6
42.5°	2310.6	2303.9	2306.8	1963.1	1738.0	1525.3	1483.8	1430.6	1488.3	1544.6	1641.4
45°	2598.2	2603.9	2601.1	2251.7	2008.9	1773.8	1729.8	1626.9	1683.3	1780.0	1937.7
47.5°	2850.1	2826.2	2863.2	2566.9	2312.2	2052.1	1997.7	1859.9	1917.1	2036.4	2303.1
50°	3155.9	3152.6	3098.3	2987.6	2678.8	2331.5	2260.3	2100.6	2189.5	2355.4	2763.7
52.5°	3477.4	3417.6	3367.9	3314.7	3067.8	2618.0	2530.7	2340.5	2509.7	2718.3	3325.1
55°	3543.1	3516.5	3578.1	3667.5	3442.8	2915.6	2813.9	2641.4	2870.3	3133.3	3972.5
57.5°	3683.9	3683.5	3811.2	3970.4	3828.8	3231.2	3128.7	3004.8	3275.6	3608.6	4659.7
60°	3779.0	3805.7	4042.8	4351.9	4207.8	3595.9	3501.6	3424.2	3736.7	4139.9	5300.1
62.5°	3828.8	3865.0	4188.6	4506.6	4743.7	4202.9	4108.7	3997.2	4346.6	4722.7	5674.6
65°	3621.8	3692.9	4165.9	4640.5	5212.9	5186.9	5144.6	4948.7	5109.2	5183.2	5539.3
67.5°	3048.8	3121.7	3672.4	4515.7	5547.9	6136.1	6145.1	5810.5	5578.4	5222.7	4657.3
70°	2172.3	2229.4	2685.1	3786.0	5292.7	6756.3	6787.2	6207.6	5484.9	4631.7	3253.9
72.5°	1031.3	1066.3	1497.7	2464.1	4200.0	6190.4	6250.1	5700.6	4663.8	3429.1	1775.0
75°	379.0	389.7	506.2	1048.3	2436.1	4565.1	4635.5	4086.5	3091.6	1707.2	676.2
77.5°	227.2	234.1	284.0	442.5	958.2	2609.4	2713.4	2222.4	1351.2	635.5	332.6
80°	158.8	163.8	203.7	275.3	452.7	994.4	1087.0	907.1	538.3	402.1	241.9
82.5°	107.4	109.9	143.2	186.0	300.9	355.1	383.1	403.4	363.0	299.2	153.5
85°	70.4	72.9	97.2	122.6	191.4	183.6	187.7	237.4	265.0	203.3	85.2
87.5°	40.3	42.0	58.5	65.5	93.9	77.8	78.6	125.1	169.6	137.1	51.8
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°	981.6	981.6	981.6	981.6	981.6	981.6	981.6	981.6	981.6	981.6	981.6
2.5°	977.9	972.5	960.6	953.1	946.2	944.5	941.6	941.2	940.8	940.8	939.6
5°	956.0	947.0	928.5	918.1	909.5	908.7	908.3	910.3	911.2	912.0	910.8
7.5°	942.1	929.8	906.7	891.9	881.6	879.0	883.3	892.7	898.9	901.3	900.1
10°	933.4	918.1	891.5	875.4	866.7	865.5	870.8	882.1	894.8	899.7	899.3
12.5°	923.6	906.2	877.8	861.0	856.1	858.5	865.5	875.8	889.0	896.8	897.2
15°	913.6	893.5	864.3	849.5	847.5	850.8	857.3	865.1	875.4	883.3	884.1
17.5°	901.7	880.7	851.6	836.3	834.6	836.3	836.7	840.8	847.5	854.9	856.9
20°	889.0	867.6	837.1	821.9	814.5	808.0	800.5	801.3	803.3	810.8	812.5
22.5°	879.9	858.5	826.0	805.0	785.3	765.5	750.7	748.6	749.5	755.6	757.7
25°	880.7	858.1	823.1	786.9	743.7	712.0	692.2	688.9	688.5	693.0	696.0
27.5°	896.8	874.1	833.8	768.3	698.5	651.5	630.5	628.1	624.8	626.0	629.3
30°	932.6	911.6	859.8	749.5	649.4	592.3	570.4	567.9	563.4	561.4	563.8
32.5°	991.0	973.8	897.6	731.3	600.5	541.6	519.4	514.1	511.2	508.8	510.8
35°	1088.2	1080.8	948.2	711.6	557.3	502.5	482.4	474.2	470.1	474.6	477.9
37.5°	1240.5	1244.6	1014.5	680.7	523.9	476.6	459.7	450.3	444.1	447.8	451.5
40°	1456.1	1459.0	1087.8	637.1	495.1	461.3	443.3	434.7	425.9	419.4	419.0
42.5°	1739.2	1710.1	1159.8	589.8	461.7	451.9	431.8	421.0	407.9	389.7	386.0
45°	2075.1	1972.7	1214.5	535.4	424.3	440.4	419.0	404.2	383.5	363.9	361.8
47.5°	2462.0	2254.5	1241.3	479.1	389.3	423.5	403.4	379.9	353.9	344.0	342.8
50°	2934.4	2589.2	1254.0	424.3	358.9	401.3	380.7	353.1	331.3	329.3	328.1
52.5°	3472.4	2991.7	1258.2	379.4	333.8	372.5	362.2	335.4	318.1	319.9	319.9
55°	4035.5	3407.4	1202.2	346.9	310.7	342.8	349.8	328.5	314.0	320.7	323.1
57.5°	4552.3	3775.8	1026.0	321.9	289.0	320.3	345.3	335.0	325.2	351.8	353.5
60°	4949.1	3993.4	766.3	299.2	272.8	312.3	357.3	360.2	362.6	426.3	435.1
62.5°	5032.2	3921.1	526.8	281.6	265.4	319.0	379.0	379.4	376.6	421.0	426.3
65°	4650.7	3462.9	383.1	271.6	259.3	330.9	397.6	388.9	370.0	403.8	393.8
67.5°	3693.3	2609.0	319.0	264.2	250.3	330.1	417.3	397.6	366.3	395.6	379.4
70°	2397.4	1577.5	284.0	258.1	239.5	314.4	428.8	396.8	355.5	368.0	349.0
72.5°	1169.6	705.5	260.5	249.0	228.4	292.7	428.4	389.3	344.5	343.6	333.4
75°	457.6	323.1	239.1	235.4	209.5	267.9	416.9	378.6	331.3	318.1	314.4
77.5°	267.9	230.5	212.0	215.3	186.9	243.2	400.1	360.2	313.2	297.6	293.5
80°	195.1	172.5	180.7	186.0	159.7	218.6	377.4	337.5	293.1	300.9	295.1
82.5°	125.1	111.1	146.5	151.9	133.0	193.4	352.7	313.6	264.6	240.3	234.6
85°	63.8	70.4	109.1	115.6	102.5	158.8	322.7	282.0	232.5	200.0	203.3
87.5°	35.8	48.1	69.6	77.8	72.4	122.2	261.8	232.5	189.7	154.3	135.9
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)