

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: P299953

Luminaire Tested: **GLNA-AF-04-LED-E1-5WQ-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299953
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24143)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-04-LED-E1-5WQ-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14425.2 lumens
Efficiency: N/A
Efficacy: 111.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G2

Input Watts (W): 129
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

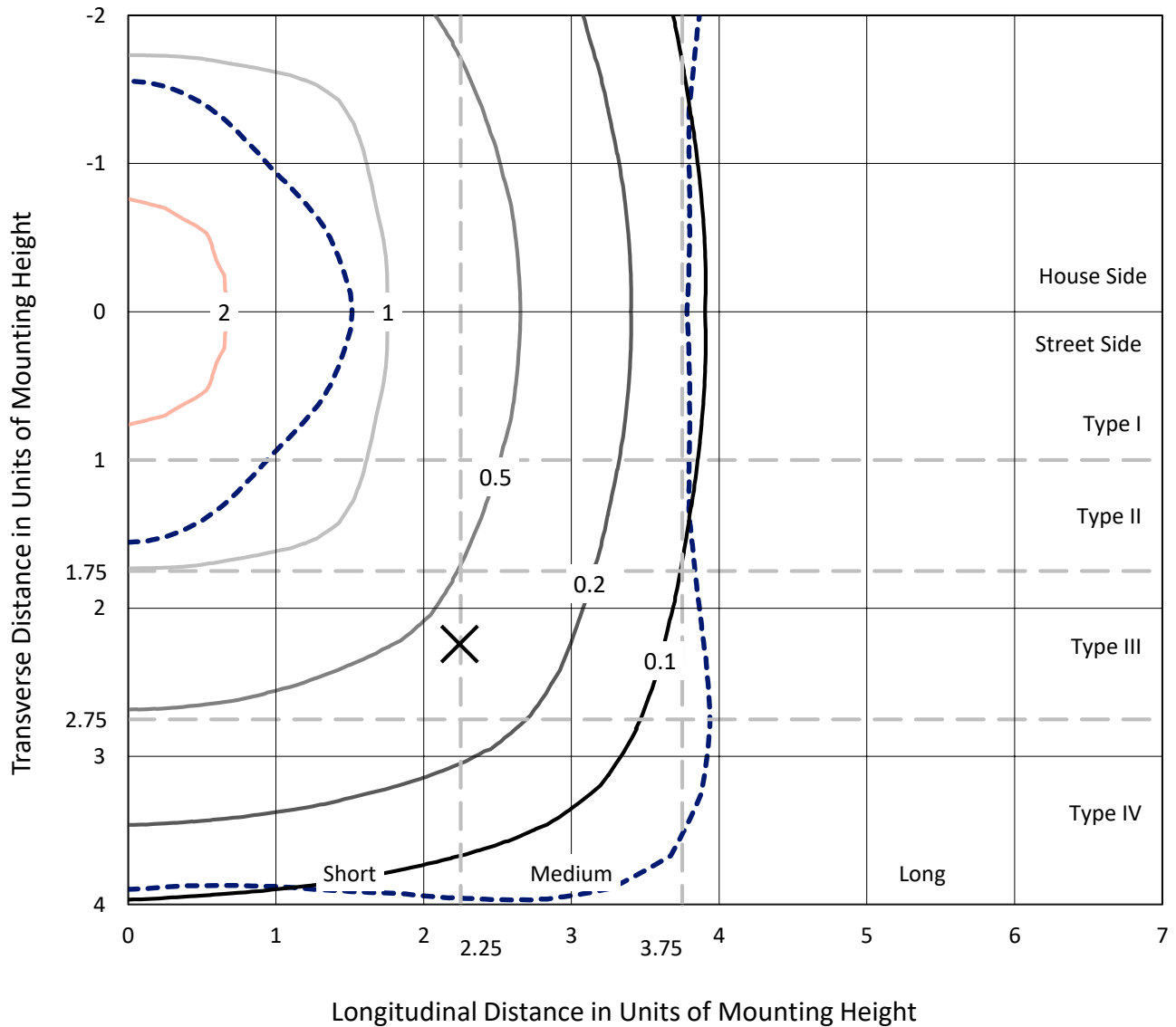


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

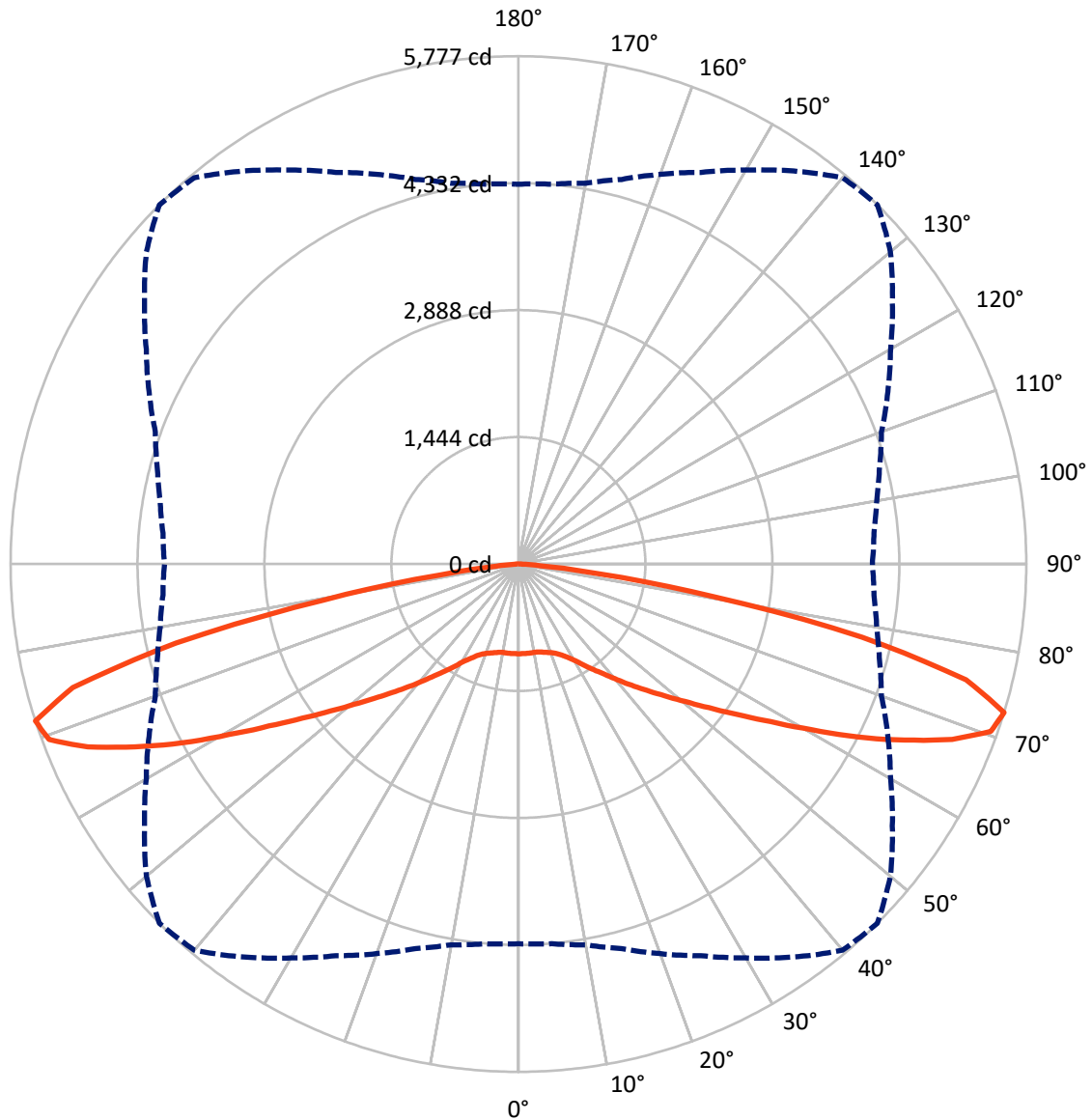


Based on 20 foot mounting height. Maximum calculated value = 2.6 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7212.6	0.0	7212.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	7212.6	0.0	7212.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	14425.2	0.0	14425.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.5	0.7
10°-20°	296.3	2.1
20°-30°	541.4	3.8
30°-40°	933.4	6.5
40°-50°	1595.7	11.1
50°-60°	2586.4	17.9
60°-70°	4290.7	29.7
70°-80°	3779.1	26.2
80°-90°	304.7	2.1
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°	14425.2	100.0
0°-180°	14425.2	100.0

Coefficient of Utilization



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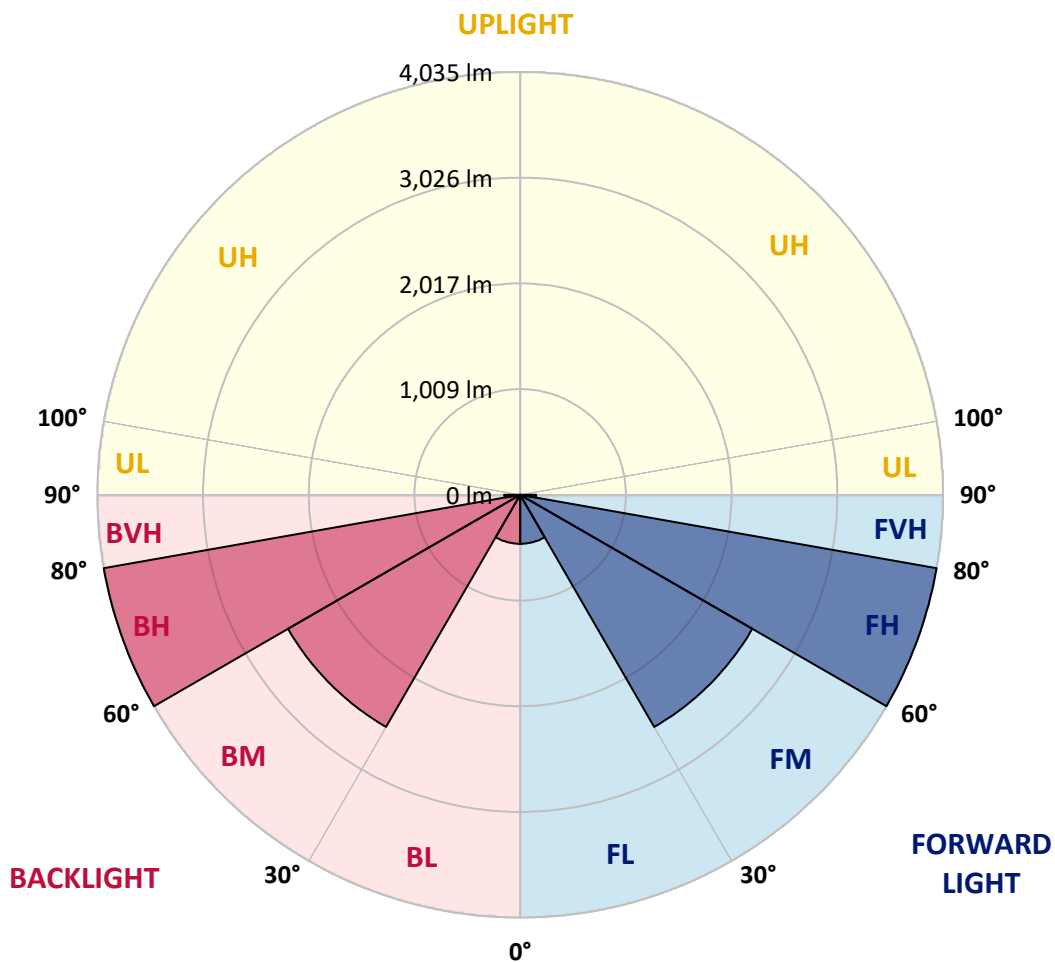
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	467.6	3.2			
FM	(30°-60°)	2557.7	17.7			
FH	(60°-80°)	4034.9	28.0			G2/5000
FVH	(80°-90°)	152.3	1.1			G2/225
BL	(0°-30°)	467.6	3.2	B1/500		
BM	(30°-60°)	2557.7	17.7	B3/5000		
BH	(60°-80°)	4034.9	28.0	B4/5000		G2/5000
BVH	(80°-90°)	152.3	1.1			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1021.5	1021.5	1021.5	1021.5	1021.5	1021.5	1021.5	1021.5	1021.5	1021.5	1021.5
2.5°	1021.5	1022.2	1022.9	1022.2	1022.2	1021.5	1020.9	1021.5	1020.9	1019.5	1020.2
5°	1024.8	1026.2	1026.2	1024.8	1025.5	1024.8	1023.5	1024.2	1022.9	1020.9	1020.9
7.5°	1028.8	1029.5	1029.5	1028.1	1028.8	1027.5	1026.2	1025.5	1024.2	1021.5	1019.5
10°	1034.8	1035.4	1034.8	1033.4	1033.4	1031.5	1028.1	1026.8	1024.2	1020.2	1018.2
12.5°	1041.4	1042.0	1041.4	1040.1	1039.4	1036.1	1033.4	1031.5	1029.5	1026.2	1022.9
15°	1050.6	1052.0	1050.6	1048.0	1046.0	1043.4	1042.0	1042.7	1043.4	1040.7	1037.4
17.5°	1067.8	1068.5	1066.5	1060.6	1057.9	1055.3	1055.3	1056.6	1058.6	1057.3	1053.9
20°	1099.6	1097.6	1093.0	1085.7	1082.4	1077.8	1077.1	1077.8	1077.8	1077.1	1074.5
22.5°	1139.3	1138.0	1132.0	1122.8	1118.1	1115.5	1111.5	1108.2	1107.5	1105.6	1102.9
25°	1186.9	1186.3	1179.0	1171.1	1167.7	1164.4	1161.1	1156.5	1152.5	1147.9	1145.2
27.5°	1247.8	1245.2	1234.6	1230.6	1226.0	1224.0	1219.3	1214.1	1210.7	1204.8	1201.5
30°	1314.6	1314.6	1306.0	1304.7	1304.7	1300.1	1294.8	1285.5	1279.6	1273.6	1271.6
32.5°	1381.4	1382.1	1373.5	1376.2	1378.1	1381.4	1382.8	1379.5	1375.5	1374.8	1370.9
35°	1478.0	1475.4	1466.8	1468.8	1468.1	1467.5	1467.5	1474.7	1476.1	1477.4	1469.4
37.5°	1597.8	1597.8	1589.2	1589.2	1585.2	1581.3	1576.0	1580.6	1587.9	1589.9	1584.6
40°	1734.7	1739.4	1728.8	1728.1	1729.5	1716.9	1710.9	1718.2	1722.8	1730.8	1724.8
42.5°	1896.2	1892.9	1882.3	1881.0	1873.7	1869.7	1864.4	1870.4	1877.7	1882.9	1884.9
45°	2051.0	2048.3	2036.4	2036.4	2029.2	2025.9	2028.5	2038.4	2041.7	2049.0	2056.3
47.5°	2203.8	2200.5	2192.6	2195.9	2196.5	2202.5	2211.1	2220.4	2229.6	2239.6	2242.9
50°	2360.0	2360.6	2352.0	2360.0	2369.9	2386.4	2409.6	2424.8	2444.0	2456.6	2460.5
52.5°	2502.2	2504.9	2514.1	2532.6	2552.5	2584.9	2624.6	2661.7	2693.4	2714.6	2713.3
55°	2672.9	2676.9	2699.4	2731.1	2763.6	2812.5	2871.4	2936.9	2989.8	3020.3	3001.1
57.5°	2891.2	2899.8	2925.0	2968.0	3016.3	3079.8	3160.5	3259.1	3341.1	3382.2	3351.1
60°	3191.0	3196.2	3226.7	3274.3	3332.5	3411.3	3519.1	3651.4	3767.2	3821.5	3785.7
62.5°	3585.9	3595.9	3620.3	3668.6	3728.2	3817.5	3949.2	4114.6	4258.8	4334.2	4253.5
65°	4057.7	4089.4	4109.9	4158.9	4214.5	4309.1	4446.7	4624.0	4778.8	4828.4	4735.2
67.5°	4524.8	4552.5	4588.3	4644.5	4700.7	4807.3	4935.0	5107.0	5277.0	5322.0	5177.1
70°	4729.2	4745.1	4800.7	4877.4	4985.2	5110.9	5258.5	5451.7	5662.1	5699.1	5515.2
72.5°	4319.7	4335.5	4397.7	4528.1	4716.0	4915.8	5173.1	5457.0	5734.8	5776.5	5523.1
75°	3267.0	3241.2	3333.2	3505.9	3759.3	4037.8	4397.7	4804.6	5206.2	5258.5	4956.1
77.5°	1688.4	1685.1	1754.6	1969.0	2271.3	2588.2	2984.5	3444.3	3837.3	3996.1	3750.0
80°	475.7	481.0	514.1	620.6	797.2	1026.2	1335.8	1766.5	2088.0	2252.1	2114.5
82.5°	186.6	201.1	213.7	233.5	256.7	290.4	387.7	576.9	774.1	924.9	757.5
85°	66.8	71.5	101.2	119.8	121.7	128.4	146.2	170.7	205.8	245.5	201.8
87.5°	25.1	27.8	32.4	53.6	52.9	48.3	58.9	61.5	46.3	42.3	52.3
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1021.5	1021.5	1021.5	1021.5	1021.5	1021.5	1021.5	1021.5
2.5°	1018.9	1019.5	1019.5	1020.2	1020.9	1020.9	1022.2	1022.2
5°	1019.5	1019.5	1018.2	1018.9	1018.2	1018.2	1018.9	1018.9
7.5°	1018.2	1017.6	1016.2	1015.6	1014.2	1014.2	1014.2	1014.2
10°	1016.2	1015.6	1014.2	1013.6	1012.9	1012.9	1012.9	1012.9
12.5°	1021.5	1019.5	1018.2	1017.6	1017.6	1017.6	1017.6	1017.6
15°	1035.4	1030.8	1027.5	1027.5	1028.1	1029.5	1029.5	1030.8
17.5°	1052.6	1047.3	1044.0	1041.4	1042.7	1044.7	1046.0	1047.3
20°	1073.1	1070.5	1065.9	1063.2	1063.2	1065.9	1067.2	1067.8
22.5°	1101.6	1099.6	1097.6	1094.3	1094.3	1095.6	1098.3	1098.3
25°	1143.9	1142.6	1141.3	1138.6	1138.0	1138.0	1139.3	1140.6
27.5°	1196.9	1197.5	1196.2	1195.5	1193.5	1192.9	1194.9	1194.2
30°	1267.6	1271.0	1274.3	1271.6	1268.3	1266.3	1264.3	1261.7
32.5°	1363.6	1359.6	1357.0	1352.3	1346.4	1341.1	1337.1	1332.5
35°	1454.2	1447.6	1445.0	1448.9	1448.3	1445.0	1440.3	1436.4
37.5°	1565.4	1564.0	1565.4	1572.6	1571.3	1574.6	1565.4	1564.7
40°	1705.6	1707.0	1716.2	1724.8	1729.5	1734.1	1728.8	1723.5
42.5°	1868.4	1867.7	1871.0	1882.9	1890.9	1896.2	1884.9	1883.6
45°	2040.4	2035.8	2038.4	2048.3	2056.3	2062.2	2049.7	2049.7
47.5°	2229.6	2221.7	2213.1	2224.3	2229.0	2232.9	2223.0	2219.7
50°	2440.7	2424.1	2405.6	2410.2	2410.2	2408.9	2396.4	2395.7
52.5°	2682.8	2652.4	2618.7	2606.1	2598.8	2590.9	2569.0	2558.5
55°	2961.4	2915.7	2862.8	2830.4	2813.2	2791.3	2754.9	2745.0
57.5°	3286.9	3215.4	3124.1	3084.4	3046.1	3010.3	2970.0	2958.7
60°	3672.6	3567.4	3446.3	3372.9	3331.2	3296.8	3255.1	3253.1
62.5°	4102.7	3936.6	3799.6	3733.5	3703.0	3672.6	3632.9	3638.2
65°	4540.0	4366.6	4238.3	4184.7	4156.2	4131.1	4091.4	4097.4
67.5°	4971.3	4811.9	4671.0	4616.1	4584.3	4552.5	4516.8	4522.8
70°	5281.0	5083.2	4924.4	4802.6	4726.6	4640.5	4585.0	4571.1
72.5°	5192.3	4887.3	4635.2	4393.8	4252.2	4137.1	4059.0	4025.2
75°	4493.7	4076.8	3752.7	3456.3	3289.5	3153.9	3055.3	2993.8
77.5°	3337.2	2868.7	2485.7	2144.3	1874.3	1693.1	1565.4	1482.7
80°	1826.7	1389.4	1015.6	713.9	524.7	436.0	385.1	360.6
82.5°	569.0	367.2	270.6	233.5	217.0	207.7	192.5	168.0
85°	181.3	158.8	147.5	140.9	134.3	117.1	80.7	73.4
87.5°	70.1	72.1	71.5	67.5	68.8	49.6	39.7	35.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)