

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: io LED

Report Number: P273376

Luminaire Tested: **0.03-5W-830-25-ID-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P273376
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (ITL89170-GONIOPHOTOMETRY)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: 0.03-5W-830-25-ID-STD-UNV-AN-3F0
Description: iO LIGHTING SERIES .75 LINEAR LED LUMINAIRE, 25 DEGREE OPTIC.
VERY HIGH OUTPUT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1016.7 lumens
Efficiency: N/A
Efficacy: 55.6 lumens/watt
Spacing Criteria (0/90/45): 0.49 / 1.12 / 0.73
Luminous Opening: Rectangular (W 2.92' x L: 0.05' x H: 0')
CIE Type: Direct

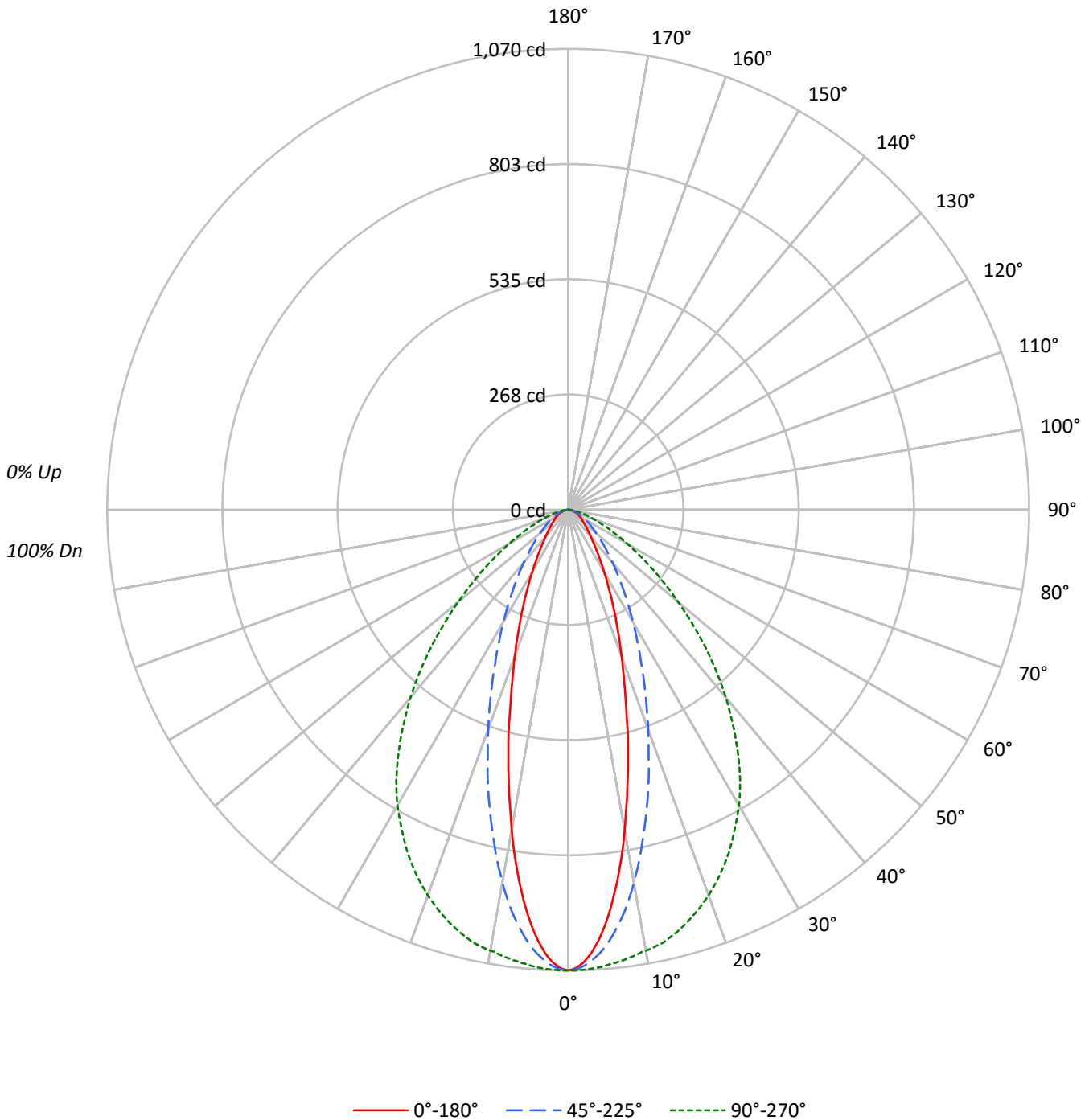
Input Watts (W): 18.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P273376

CATALOG NUMBER: 0.03-5W-830-25-ID-STD-UNV-AN-3F0

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90					90			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80					80			
3	98	89	83	78	95	88	82	78	85	80	76	83	79	75	80	77	74	72					72			
4	91	82	75	70	89	81	74	69	78	73	69	76	72	68	74	70	67	65					65			
5	86	75	68	63	84	74	68	63	72	67	62	71	66	61	69	64	61	59					59			
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	60	56	54					54			
7	76	65	58	53	74	64	57	52	63	57	52	61	56	52	60	55	51	50					50			
8	72	60	53	48	70	60	53	48	59	52	48	57	52	48	56	51	48	46					46			
9	68	56	50	45	66	56	49	45	55	49	45	54	48	45	53	48	44	43					43			
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40					40			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	84234	84234	84234
5°	76731	80209	83844
10°	60350	70264	83135
15°	43517	57699	82070
20°	30329	45402	79837
25°	21457	35182	76523
30°	15182	27273	72083
35°	10957	21145	65923
40°	8325	16444	58469
45°	6792	13027	49992
50°	5757	10411	40787
55°	5216	8648	32394
60°	4881	7243	24879
65°	4657	6334	18815
70°	4143	5525	14042
75°	3954	4867	10647
80°	3174	4081	8161
85°	2710	2710	5420



TEST NUMBER: P273376

CATALOG NUMBER: 0.03-5W-830-25-ID-STD-UNV-AN-3F0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.7	9.1
10°-20°	205.3	20.2
20°-30°	221.7	21.8
30°-40°	190.2	18.7
40°-50°	140.6	13.8
50°-60°	89.9	8.8
60°-70°	49.6	4.9
70°-80°	21.9	2.1
80°-90°	4.7	0.5
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°-30°	519.8	51.1
0°-40°	710.0	69.8
0°-60°	940.5	92.5
0°-90°	1016.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1016.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1070	1070	1070	1070	1070	
5°	971	983	1015	1046	1061	86
15°	534	580	708	897	1007	147
25°	247	286	405	673	881	115
35°	114	138	220	457	686	73
45°	61	71	117	284	449	48
55°	38	42	63	156	236	34
65°	25	26	34	74	101	25
75°	13	13	16	28	35	13
85°	3	3	3	5	6	3
90°	0	0	0	0	0	



TEST NUMBER: P273376

CATALOG NUMBER: 0.03-5W-830-25-ID-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1069.9	1069.9	1069.9	1069.9	1069.9	1069.9	1069.9	1069.9	1069.9	1069.9	1069.9
0.5°	1067.9	1068.1	1068.3	1068.6	1068.8	1068.9	1068.9	1068.9	1068.9	1068.9	1069.1
1°	1063.9	1064.1	1064.3	1064.6	1064.8	1065.1	1065.6	1066.0	1066.5	1066.9	1067.3
1.5°	1057.9	1058.3	1058.8	1059.2	1059.7	1060.3	1061.2	1062.1	1063.0	1063.9	1064.6
2°	1050.9	1051.3	1051.8	1052.2	1052.7	1053.7	1055.2	1056.8	1058.3	1059.9	1061.0
2.5°	1040.9	1041.8	1042.7	1043.6	1044.5	1046.0	1048.2	1050.5	1052.7	1054.9	1056.9
3°	1029.9	1031.0	1032.1	1033.2	1034.3	1036.3	1039.2	1042.1	1045.0	1047.9	1050.8
3.5°	1016.9	1018.5	1020.0	1021.6	1023.1	1025.8	1029.6	1033.3	1037.1	1040.9	1044.7
4°	1002.9	1004.7	1006.5	1008.2	1010.0	1013.5	1018.6	1023.7	1028.8	1033.9	1038.6
4.5°	987.9	989.9	991.9	993.9	995.9	1000.0	1006.2	1012.5	1018.7	1024.9	1030.7
5°	970.9	973.3	975.8	978.2	980.7	985.6	992.9	1000.2	1007.6	1014.9	1022.0
5.5°	952.9	955.8	958.7	961.6	964.5	970.1	978.6	987.0	995.5	1003.9	1012.6
6°	932.9	936.5	940.0	943.6	947.1	953.8	963.6	973.3	983.1	992.9	1002.9
6.5°	912.9	916.7	920.5	924.2	928.0	935.6	946.9	958.2	969.6	980.9	992.5
7°	891.9	896.1	900.3	904.6	908.8	917.2	929.9	942.6	955.2	967.9	981.0
7.5°	870.9	875.6	880.2	884.9	889.6	898.9	912.9	926.9	940.9	954.9	969.6
8°	847.9	853.0	858.1	863.2	868.3	878.7	894.2	909.8	925.3	940.9	957.3
8.5°	825.9	831.2	836.6	841.9	847.2	858.3	875.2	892.1	909.0	925.9	944.1
9°	802.9	808.7	814.5	820.2	826.0	838.0	856.2	874.5	892.7	910.9	931.1
9.5°	778.9	785.3	791.8	798.2	804.7	817.7	837.2	856.8	876.3	895.9	917.9
10°	754.9	761.8	768.7	775.6	782.5	796.2	816.9	837.6	858.2	878.9	903.1
10.5°	730.9	738.0	745.1	752.2	759.3	773.9	795.9	817.9	839.9	861.9	888.3
11°	706.9	715.1	723.3	731.6	739.8	755.2	777.9	800.6	823.2	845.9	874.1
11.5°	683.9	692.3	700.8	709.2	717.7	733.8	757.6	781.3	805.1	828.9	859.1
12°	660.9	669.6	678.2	686.9	695.6	712.3	737.2	762.1	787.0	811.9	844.1
12.5°	638.9	647.6	656.2	664.9	673.6	690.7	716.2	741.8	767.3	792.9	827.6
13°	616.9	625.8	634.7	643.6	652.5	670.1	696.6	723.0	749.5	775.9	812.3
13.5°	594.9	604.0	613.1	622.2	631.3	649.6	676.9	704.2	731.6	758.9	797.1
14°	573.9	583.0	592.1	601.2	610.3	629.0	657.2	685.5	713.7	741.9	781.7
14.5°	553.9	562.8	571.7	580.6	589.5	608.5	637.6	666.7	695.8	724.9	766.5
15°	533.9	543.0	552.1	561.2	570.3	589.7	619.2	648.8	678.3	707.9	751.0
16°	490.0	500.1	510.3	520.6	530.8	551.2	581.9	612.6	643.2	673.9	719.9
17°	455.0	465.0	475.0	485.0	495.0	515.5	546.6	577.7	608.8	639.9	688.8
18°	421.0	430.8	440.6	450.3	460.1	480.6	511.6	542.7	573.8	604.9	656.7
19°	390.0	399.6	409.1	418.7	428.2	448.6	479.7	510.7	541.8	572.9	626.9
20°	362.0	371.1	380.2	389.3	398.4	418.4	449.3	480.2	511.0	541.9	597.7
22.5°	299.0	307.2	315.4	323.7	331.9	350.9	380.7	410.4	440.2	470.0	528.8
25°	247.0	254.6	262.1	269.7	277.2	294.8	322.3	349.9	377.4	405.0	465.4
27.5°	203.0	209.9	216.8	223.7	230.6	246.8	272.3	297.9	323.4	349.0	409.0
30°	167.0	173.0	179.0	185.0	191.0	205.8	229.3	252.9	276.4	300.0	358.4
32.5°	137.0	142.3	147.7	153.0	158.3	171.7	193.0	214.3	235.7	257.0	313.0
35°	114.0	118.4	122.9	127.3	131.8	143.6	162.7	181.8	200.9	220.0	272.9
37.5°	96.0	99.6	103.1	106.7	110.2	120.4	137.3	154.2	171.1	188.0	237.1
40°	81.0	84.1	87.2	90.3	93.4	102.2	116.7	131.1	145.6	160.0	205.3
42.5°	70.0	72.2	74.4	76.7	78.9	86.3	99.0	111.7	124.3	137.0	178.3



TEST NUMBER: P273376

CATALOG NUMBER: 0.03-5W-830-25-ID-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
45°	61.0	62.8	64.6	66.3	68.1	74.3	85.0	95.7	106.3	117.0	154.1
47.5°	53.0	54.6	56.1	57.7	59.2	64.4	73.3	82.2	91.1	100.0	132.9
50°	47.0	48.1	49.2	50.3	51.4	55.7	63.0	70.3	77.7	85.0	113.9
52.5°	42.0	42.9	43.8	44.7	45.6	49.0	55.0	61.0	67.0	73.0	97.7
55°	38.0	38.7	39.3	40.0	40.7	43.4	48.3	53.2	58.1	63.0	83.9
57.5°	35.0	35.2	35.4	35.7	35.9	38.0	42.0	46.0	50.0	54.0	71.3
60°	31.0	31.2	31.4	31.7	31.9	33.6	36.7	39.8	42.9	46.0	60.4
62.5°	28.0	28.2	28.4	28.7	28.9	30.2	32.7	35.1	37.6	40.0	51.6
65°	25.0	25.0	25.0	25.0	25.0	26.0	28.0	30.0	32.0	34.0	43.1
67.5°	22.0	22.0	22.0	22.0	22.0	22.8	24.3	25.9	27.4	29.0	35.9
70°	18.0	18.2	18.4	18.7	18.9	19.6	20.7	21.8	22.9	24.0	29.3
72.5°	15.0	15.2	15.4	15.7	15.9	16.4	17.3	18.2	19.1	20.0	23.8
75°	13.0	13.0	13.0	13.0	13.0	13.3	14.0	14.7	15.3	16.0	18.7
77.5°	10.0	10.0	10.0	10.0	10.0	10.2	10.7	11.1	11.6	12.0	14.0
80°	7.0	7.0	7.0	7.0	7.0	7.2	7.7	8.1	8.6	9.0	10.1
82.5°	5.0	5.0	5.0	5.0	5.0	5.1	5.3	5.6	5.8	6.0	6.7
85°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.4
87.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P273376

CATALOG NUMBER: 0.03-5W-830-25-ID-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1069.9	1069.9	1069.9	1069.9	1069.9	1069.9	1069.9	1069.9
0.5°	1069.3	1069.6	1069.8	1069.9	1069.9	1069.9	1069.9	1069.9
1°	1067.8	1068.2	1068.7	1069.0	1069.2	1069.5	1069.7	1069.9
1.5°	1065.2	1065.9	1066.6	1067.1	1067.6	1068.0	1068.5	1068.9
2°	1062.1	1063.2	1064.3	1065.3	1066.2	1067.1	1068.0	1068.9
2.5°	1058.9	1060.9	1062.9	1064.3	1065.2	1066.1	1067.0	1067.9
3°	1053.7	1056.6	1059.5	1061.6	1062.9	1064.2	1065.6	1066.9
3.5°	1048.5	1052.2	1056.0	1058.8	1060.6	1062.3	1064.1	1065.9
4°	1043.2	1047.9	1052.6	1056.0	1058.2	1060.5	1062.7	1064.9
4.5°	1036.5	1042.2	1048.0	1052.2	1054.9	1057.6	1060.2	1062.9
5°	1029.1	1036.2	1043.3	1048.5	1051.6	1054.7	1057.8	1060.9
5.5°	1021.2	1029.9	1038.6	1044.7	1048.2	1051.8	1055.3	1058.9
6°	1012.9	1022.9	1032.9	1040.1	1044.6	1049.0	1053.5	1057.9
6.5°	1004.0	1015.6	1027.1	1035.3	1040.2	1045.1	1050.0	1054.9
7°	994.1	1007.2	1020.3	1029.9	1035.9	1041.9	1047.9	1053.9
7.5°	984.2	998.9	1013.6	1024.2	1030.9	1037.6	1044.2	1050.9
8°	973.8	990.2	1006.7	1018.7	1026.2	1033.8	1041.3	1048.9
8.5°	962.3	980.6	998.8	1012.2	1020.9	1029.6	1038.2	1046.9
9°	951.3	971.6	991.8	1006.6	1015.9	1025.2	1034.6	1043.9
9.5°	939.9	961.9	983.9	1000.0	1010.2	1020.5	1030.7	1040.9
10°	927.3	951.6	975.8	993.7	1005.2	1016.8	1028.3	1039.9
10.5°	914.8	941.2	967.7	987.2	999.9	1012.6	1025.2	1037.9
11°	902.3	930.6	958.8	979.9	993.9	1007.9	1021.9	1035.9
11.5°	889.3	919.6	949.8	972.5	987.6	1002.7	1017.8	1032.9
12°	876.3	908.6	940.8	965.1	981.6	998.0	1014.5	1030.9
12.5°	862.2	896.9	931.6	957.7	975.2	992.8	1010.3	1027.9
13°	848.8	885.2	921.7	949.2	967.9	986.6	1005.2	1023.9
13.5°	835.3	873.6	911.8	940.8	960.6	980.3	1000.1	1019.9
14°	821.5	861.2	901.0	931.5	952.6	973.7	994.8	1015.9
14.5°	808.0	849.6	891.1	923.0	945.2	967.5	989.7	1011.9
15°	794.1	837.2	880.3	913.6	936.9	960.2	983.6	1006.9
16°	765.9	811.9	857.9	893.9	919.9	945.9	971.9	997.9
17°	737.7	786.6	835.5	874.0	902.2	930.5	958.7	986.9
18°	708.5	760.2	812.0	853.3	884.2	915.1	946.0	976.9
19°	680.9	734.9	788.9	832.5	865.6	898.7	931.8	964.9
20°	653.5	709.2	765.0	810.7	846.2	881.8	917.3	952.9
22.5°	587.7	646.6	705.5	755.3	796.2	837.1	878.0	918.9
25°	525.8	586.2	646.7	699.6	744.9	790.2	835.6	880.9
27.5°	469.0	528.9	588.9	643.1	691.6	740.0	788.5	836.9
30°	416.9	475.3	533.7	588.5	639.6	690.7	741.8	792.9
32.5°	369.0	425.0	481.0	534.9	586.9	638.9	690.9	742.9
35°	325.8	378.7	431.6	483.3	533.9	584.6	635.2	685.9
37.5°	286.2	335.3	384.4	433.3	482.0	530.6	579.2	627.9
40°	250.7	296.0	341.3	386.8	432.3	477.9	523.3	568.9
42.5°	219.7	261.0	302.3	343.7	385.0	426.3	467.7	508.9



TEST NUMBER: P273376

CATALOG NUMBER: 0.03-5W-830-25-ID-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
45°	191.2	228.3	265.4	302.3	339.0	375.7	412.3	449.0
47.5°	165.8	198.7	231.6	263.7	295.0	326.3	357.7	389.0
50°	142.8	171.7	200.6	228.1	254.3	280.6	306.8	333.0
52.5°	122.3	147.0	171.7	194.9	216.7	238.4	260.2	282.0
55°	104.8	125.7	146.6	165.8	183.3	200.9	218.4	236.0
57.5°	88.7	106.0	123.3	138.9	152.7	166.4	180.2	194.0
60°	74.9	89.3	103.8	116.2	126.7	137.1	147.6	158.0
62.5°	63.1	74.7	86.2	95.9	103.7	111.4	119.2	127.0
65°	52.2	61.3	70.4	77.9	83.7	89.4	95.2	101.0
67.5°	42.8	49.7	56.6	62.1	66.3	70.6	74.8	79.0
70°	34.7	40.0	45.3	49.4	52.3	55.2	58.1	61.0
72.5°	27.6	31.3	35.1	38.1	40.3	42.6	44.8	47.0
75°	21.3	24.0	26.7	28.8	30.3	31.9	33.4	35.0
77.5°	16.0	18.0	20.0	21.4	22.3	23.2	24.1	25.0
80°	11.2	12.3	13.4	14.4	15.3	16.2	17.1	18.0
82.5°	7.3	8.0	8.7	9.2	9.7	10.1	10.6	11.0
85°	3.9	4.3	4.8	5.1	5.3	5.6	5.8	6.0
87.5°	1.0	1.0	1.0	1.1	1.3	1.6	1.8	2.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)