

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: P273386

Luminaire Tested: **0.03-5W-840-25-ID-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P273386  
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-840-25-ID-STD-UNV-AN-3F0  
Description: iO LIGHTING SERIES .75 LINEAR LED LUMINAIRE, 25 DEGREE OPTIC.  
VERY HIGH OUTPUT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1077.7 lumens  
Efficiency: N/A  
Efficacy: 58.9 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

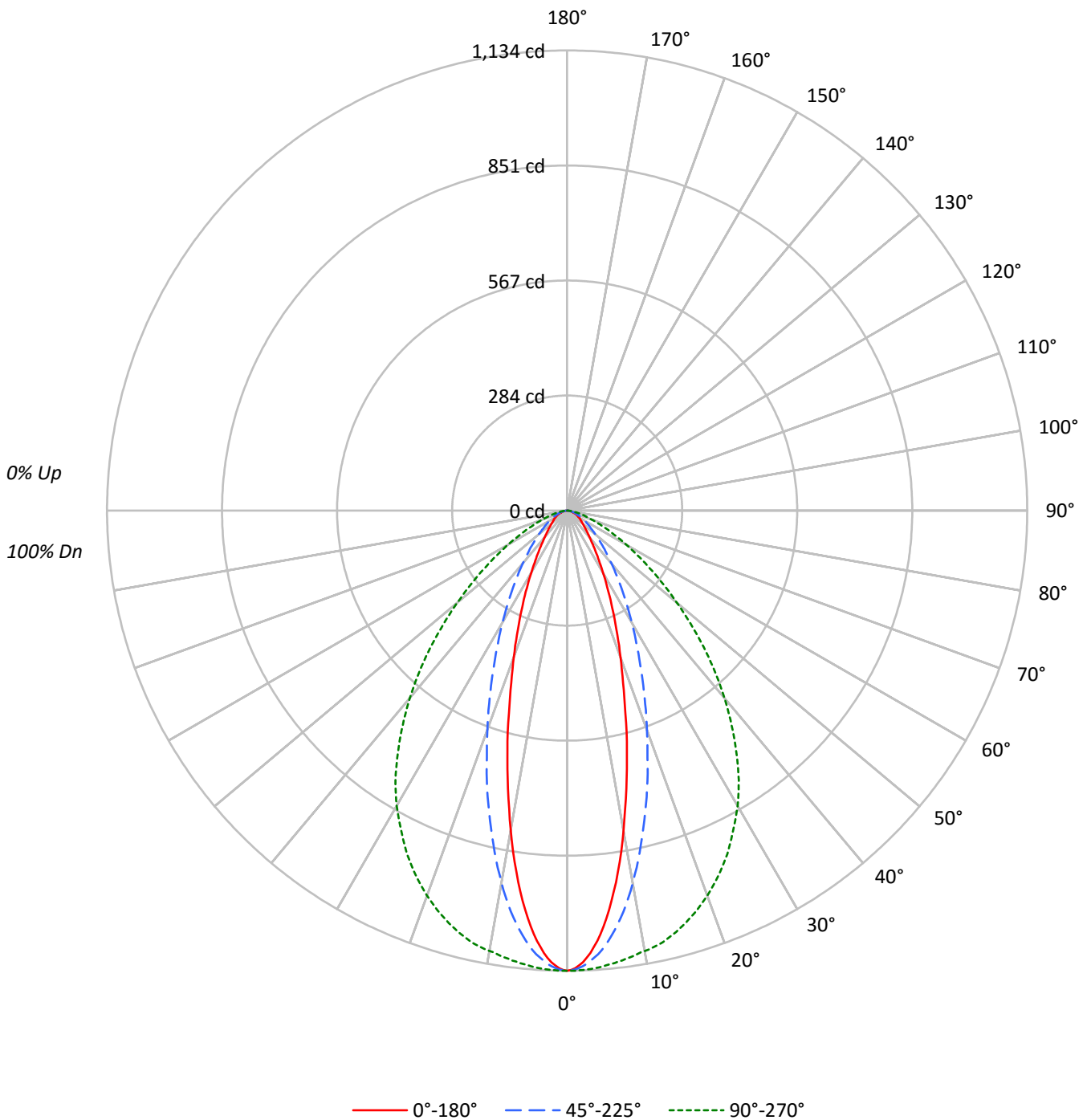
Input Watts (W): 18.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### 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°	89288	89288	89288
5°	81339	85022	88870
10°	63972	74477	88123
15°	46133	61163	86993
20°	32148	48133	84629
25°	22742	37293	81119
30°	16091	28909	76410
35°	11610	22413	69883
40°	8828	17431	61984
45°	7204	13806	52987
50°	6100	11036	43224
55°	5532	9169	34329
60°	5180	7684	26375
65°	4937	6707	19933
70°	4397	5847	14893
75°	4198	5171	11285
80°	3355	4307	8660
85°	2891	2891	5781



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	98.3	9.1
10°-20°	217.6	20.2
20°-30°	235.0	21.8
30°-40°	201.6	18.7
40°-50°	149.1	13.8
50°-60°	95.2	8.8
60°-70°	52.6	4.9
70°-80°	23.2	2.1
80°-90°	5.0	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°	551.0	51.1
0°-40°	752.6	69.8
0°-60°	996.9	92.5
0°-90°	1077.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1077.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1134	1134	1134	1134	1134	
5°	1029	1042	1076	1109	1124	91
15°	566	615	750	951	1067	156
25°	262	303	429	714	934	122
35°	121	146	233	485	727	77
45°	65	76	124	301	476	51
55°	40	45	67	166	250	36
65°	26	27	36	79	107	26
75°	14	14	17	29	37	14
85°	3	3	3	5	6	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1134.1	1134.1	1134.1	1134.1	1134.1	1134.1	1134.1	1134.1	1134.1	1134.1	1134.1
0.5°	1132.0	1132.2	1132.4	1132.7	1132.9	1133.0	1133.0	1133.0	1133.0	1133.0	1133.2
1°	1127.7	1127.9	1128.2	1128.5	1128.7	1129.0	1129.5	1130.0	1130.5	1130.9	1131.3
1.5°	1121.4	1121.8	1122.3	1122.7	1123.3	1123.9	1124.9	1125.8	1126.8	1127.7	1128.5
2°	1113.9	1114.4	1114.9	1115.3	1115.9	1116.9	1118.5	1120.2	1121.8	1123.5	1124.7
2.5°	1103.3	1104.3	1105.3	1106.2	1107.2	1108.8	1111.1	1113.5	1115.9	1118.2	1120.3
3°	1091.7	1092.9	1094.0	1095.2	1096.4	1098.5	1101.5	1104.6	1107.7	1110.8	1113.8
3.5°	1077.9	1079.6	1081.2	1082.9	1084.5	1087.3	1091.4	1095.3	1099.3	1103.3	1107.4
4°	1063.1	1065.0	1066.9	1068.7	1070.6	1074.3	1079.7	1085.1	1090.5	1095.9	1100.9
4.5°	1047.2	1049.3	1051.4	1053.5	1055.7	1060.0	1066.6	1073.2	1079.8	1086.4	1092.5
5°	1029.2	1031.7	1034.4	1036.9	1039.5	1044.7	1052.5	1060.2	1068.1	1075.8	1083.3
5.5°	1010.1	1013.2	1016.2	1019.3	1022.4	1028.3	1037.3	1046.2	1055.2	1064.1	1073.4
6°	988.9	992.7	996.4	1000.2	1003.9	1011.0	1021.4	1031.7	1042.1	1052.5	1063.1
6.5°	967.7	971.7	975.7	979.7	983.7	991.7	1003.7	1015.7	1027.8	1039.8	1052.1
7°	945.4	949.9	954.3	958.9	963.3	972.2	985.7	999.2	1012.5	1026.0	1039.9
7.5°	923.2	928.1	933.0	938.0	943.0	952.8	967.7	982.5	997.4	1012.2	1027.8
8°	898.8	904.2	909.6	915.0	920.4	931.4	947.9	964.4	980.8	997.4	1014.7
8.5°	875.5	881.1	886.8	892.4	898.0	909.8	927.7	945.6	963.5	981.5	1000.8
9°	851.1	857.2	863.4	869.4	875.6	888.3	907.6	927.0	946.3	965.6	987.0
9.5°	825.7	832.4	839.3	846.1	853.0	866.8	887.4	908.2	928.9	949.7	973.0
10°	800.2	807.5	814.8	822.2	829.5	844.0	865.9	887.9	909.7	931.6	957.3
10.5°	774.8	782.3	789.8	797.4	804.9	820.4	843.7	867.0	890.3	913.6	941.6
11°	749.3	758.0	766.7	775.5	784.2	800.5	824.6	848.7	872.6	896.7	926.6
11.5°	725.0	733.9	742.9	751.8	760.8	777.9	803.1	828.2	853.4	878.7	910.7
12°	700.6	709.8	718.9	728.1	737.4	755.1	781.5	807.9	834.2	860.6	894.8
12.5°	677.3	686.5	695.6	704.8	714.1	732.2	759.2	786.3	813.4	840.5	877.3
13°	654.0	663.4	672.8	682.3	691.7	710.3	738.4	766.4	794.5	822.5	861.1
13.5°	630.6	640.3	649.9	659.6	669.2	688.6	717.5	746.5	775.5	804.5	844.9
14°	608.4	618.0	627.7	637.3	647.0	666.8	696.7	726.7	756.6	786.4	828.6
14.5°	587.2	596.6	606.0	615.5	624.9	645.1	675.9	706.7	737.6	768.4	812.5
15°	566.0	575.6	585.3	594.9	604.6	625.1	656.4	687.8	719.0	750.4	796.1
16°	519.3	530.2	541.0	551.9	562.7	584.3	616.9	649.4	681.8	714.4	763.1
17°	482.3	492.9	503.4	514.0	524.6	546.5	579.4	612.4	645.4	678.3	730.2
18°	446.2	456.6	467.0	477.3	487.7	509.4	542.3	575.3	608.3	641.2	696.1
19°	413.4	423.5	433.6	443.8	453.8	475.5	508.4	541.4	574.4	607.3	664.6
20°	383.7	393.3	403.0	412.6	422.3	443.5	476.2	509.0	541.7	574.5	633.6
22.5°	316.9	325.6	334.3	343.1	351.8	371.9	403.5	435.0	466.6	498.2	560.6
25°	261.8	269.8	277.8	285.9	293.8	312.5	341.6	370.9	400.0	429.3	493.3
27.5°	215.2	222.5	229.8	237.1	244.4	261.6	288.6	315.7	342.8	369.9	433.5
30°	177.0	183.4	189.7	196.1	202.4	218.1	243.0	268.0	293.0	318.0	379.9
32.5°	145.2	150.8	156.5	162.2	167.8	182.0	204.6	227.1	249.8	272.4	331.7
35°	120.8	125.5	130.3	134.9	139.7	152.2	172.4	192.7	212.9	233.2	289.2
37.5°	101.7	105.6	109.3	113.1	116.8	127.6	145.5	163.4	181.3	199.3	251.3
40°	85.9	89.1	92.4	95.7	99.0	108.3	123.7	139.0	154.3	169.6	217.6
42.5°	74.2	76.5	78.9	81.3	83.6	91.5	104.9	118.4	131.7	145.2	189.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
45°	64.7	66.6	68.5	70.3	72.2	78.8	90.1	101.4	112.7	124.0	163.3
47.5°	56.2	57.9	59.5	61.2	62.7	68.3	77.7	87.1	96.6	106.0	140.9
50°	49.8	51.0	52.1	53.3	54.5	59.0	66.8	74.5	82.4	90.1	120.7
52.5°	44.5	45.5	46.4	47.4	48.3	51.9	58.3	64.7	71.0	77.4	103.6
55°	40.3	41.0	41.7	42.4	43.1	46.0	51.2	56.4	61.6	66.8	88.9
57.5°	37.1	37.3	37.5	37.8	38.1	40.3	44.5	48.8	53.0	57.2	75.6
60°	32.9	33.1	33.3	33.6	33.8	35.6	38.9	42.2	45.5	48.8	64.0
62.5°	29.7	29.9	30.1	30.4	30.6	32.0	34.7	37.2	39.9	42.4	54.7
65°	26.5	26.5	26.5	26.5	26.5	27.6	29.7	31.8	33.9	36.0	45.7
67.5°	23.3	23.3	23.3	23.3	23.3	24.2	25.8	27.5	29.0	30.7	38.1
70°	19.1	19.3	19.5	19.8	20.0	20.8	21.9	23.1	24.3	25.4	31.1
72.5°	15.9	16.1	16.3	16.6	16.9	17.4	18.3	19.3	20.2	21.2	25.2
75°	13.8	13.8	13.8	13.8	13.8	14.1	14.8	15.6	16.2	17.0	19.8
77.5°	10.6	10.6	10.6	10.6	10.6	10.8	11.3	11.8	12.3	12.7	14.8
80°	7.4	7.4	7.4	7.4	7.4	7.6	8.2	8.6	9.1	9.5	10.7
82.5°	5.3	5.3	5.3	5.3	5.3	5.4	5.6	5.9	6.1	6.4	7.1
85°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.6
87.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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°	1134.1	1134.1	1134.1	1134.1	1134.1	1134.1	1134.1	1134.1
0.5°	1133.5	1133.8	1134.0	1134.1	1134.1	1134.1	1134.1	1134.1
1°	1131.9	1132.3	1132.8	1133.1	1133.3	1133.7	1133.9	1134.1
1.5°	1129.1	1129.8	1130.6	1131.1	1131.6	1132.1	1132.6	1133.0
2°	1125.8	1127.0	1128.2	1129.2	1130.2	1131.1	1132.1	1133.0
2.5°	1122.4	1124.5	1126.7	1128.2	1129.1	1130.1	1131.0	1132.0
3°	1116.9	1120.0	1123.1	1125.3	1126.7	1128.0	1129.5	1130.9
3.5°	1111.4	1115.3	1119.4	1122.3	1124.2	1126.0	1127.9	1129.8
4°	1105.8	1110.8	1115.8	1119.4	1121.7	1124.1	1126.5	1128.8
4.5°	1098.7	1104.7	1110.9	1115.3	1118.2	1121.0	1123.8	1126.7
5°	1090.8	1098.4	1105.9	1111.4	1114.7	1118.0	1121.3	1124.5
5.5°	1082.5	1091.7	1100.9	1107.4	1111.1	1114.9	1118.6	1122.4
6°	1073.7	1084.3	1094.9	1102.5	1107.3	1111.9	1116.7	1121.4
6.5°	1064.2	1076.5	1088.7	1097.4	1102.6	1107.8	1113.0	1118.2
7°	1053.7	1067.6	1081.5	1091.7	1098.0	1104.4	1110.8	1117.1
7.5°	1043.3	1058.8	1074.4	1085.6	1092.8	1099.9	1106.8	1113.9
8°	1032.2	1049.6	1067.1	1079.8	1087.8	1095.8	1103.8	1111.8
8.5°	1020.0	1039.4	1058.7	1072.9	1082.2	1091.4	1100.5	1109.7
9°	1008.4	1029.9	1051.3	1067.0	1076.9	1086.7	1096.7	1106.5
9.5°	996.3	1019.6	1042.9	1060.0	1070.8	1081.7	1092.5	1103.3
10°	982.9	1008.7	1034.4	1053.3	1065.5	1077.8	1090.0	1102.3
10.5°	969.7	997.7	1025.8	1046.4	1059.9	1073.4	1086.7	1100.2
11°	956.4	986.4	1016.3	1038.7	1053.5	1068.4	1083.2	1098.0
11.5°	942.7	974.8	1006.8	1030.9	1046.9	1062.9	1078.9	1094.9
12°	928.9	963.1	997.3	1023.0	1040.5	1057.9	1075.4	1092.8
12.5°	913.9	950.7	987.5	1015.2	1033.7	1052.4	1070.9	1089.6
13°	899.7	938.3	977.0	1006.2	1026.0	1045.8	1065.5	1085.3
13.5°	885.4	926.0	966.5	997.3	1018.2	1039.1	1060.1	1081.1
14°	870.8	912.9	955.1	987.4	1009.8	1032.1	1054.5	1076.9
14.5°	856.5	900.6	944.6	978.4	1001.9	1025.6	1049.1	1072.6
15°	841.8	887.4	933.1	968.4	993.1	1017.8	1042.6	1067.3
16°	811.9	860.6	909.4	947.5	975.1	1002.7	1030.2	1057.8
17°	782.0	833.8	885.6	926.5	956.3	986.3	1016.2	1046.1
18°	751.0	805.8	860.7	904.5	937.3	970.0	1002.8	1035.5
19°	721.8	779.0	836.3	882.5	917.5	952.6	987.7	1022.8
20°	692.7	751.8	810.9	859.4	897.0	934.7	972.3	1010.1
22.5°	623.0	685.4	747.9	800.6	844.0	887.3	930.7	974.0
25°	557.4	621.4	685.5	741.6	789.6	837.6	885.8	933.8
27.5°	497.1	560.7	624.3	681.7	733.1	784.4	835.8	887.1
30°	441.9	503.8	565.8	623.9	678.0	732.2	786.3	840.5
32.5°	391.1	450.5	509.8	567.0	622.2	677.3	732.4	787.5
35°	345.3	401.4	457.5	512.2	566.0	619.7	673.4	727.1
37.5°	303.3	355.4	407.4	459.3	510.9	562.5	614.0	665.6
40°	265.7	313.7	361.7	410.0	458.2	506.5	554.7	603.1
42.5°	232.9	276.6	320.4	364.3	408.1	451.8	495.7	539.5





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
45°	202.7	242.0	281.3	320.4	359.3	398.2	437.0	475.9
47.5°	175.7	210.6	245.5	279.5	312.7	345.8	379.1	412.3
50°	151.4	182.0	212.6	241.8	269.5	297.4	325.2	352.9
52.5°	129.6	155.8	182.0	206.6	229.7	252.7	275.8	298.9
55°	111.1	133.2	155.4	175.7	194.3	212.9	231.5	250.1
57.5°	94.0	112.3	130.7	147.2	161.8	176.4	191.0	205.6
60°	79.4	94.6	110.0	123.2	134.3	145.3	156.4	167.5
62.5°	66.9	79.2	91.4	101.6	109.9	118.1	126.3	134.6
65°	55.3	65.0	74.6	82.6	88.7	94.8	100.9	107.0
67.5°	45.4	52.7	60.0	65.8	70.3	74.8	79.3	83.7
70°	36.8	42.4	48.0	52.4	55.4	58.5	61.6	64.7
72.5°	29.3	33.2	37.2	40.4	42.7	45.2	47.5	49.8
75°	22.6	25.4	28.3	30.5	32.1	33.8	35.4	37.1
77.5°	17.0	19.1	21.2	22.7	23.6	24.6	25.5	26.5
80°	11.9	13.0	14.2	15.3	16.2	17.2	18.1	19.1
82.5°	7.7	8.5	9.2	9.8	10.3	10.7	11.2	11.7
85°	4.1	4.6	5.1	5.4	5.6	5.9	6.1	6.4
87.5°	1.1	1.1	1.1	1.2	1.4	1.7	1.9	2.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)