

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: P273370

Luminaire Tested: **0.03-5W-827-10-ID-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P273370
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (ITL89171-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-827-10-ID-STD-UNV-AN-3F0
Description: iO LIGHTING SERIES .75 LINEAR LED LUMINAIRE, 10 DEGREE OPTIC.
VERY HIGH OUTPUT
Light Source: 2700K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 801.9 lumens
Efficiency: N/A
Efficacy: 43.8 lumens/watt
Spacing Criteria (0/90/45): 0.37 / 0.89 / 0.57
Luminous Opening: Rectangular (W 2.92' x L: 0.05' x H: 0')
CIE Type: Direct

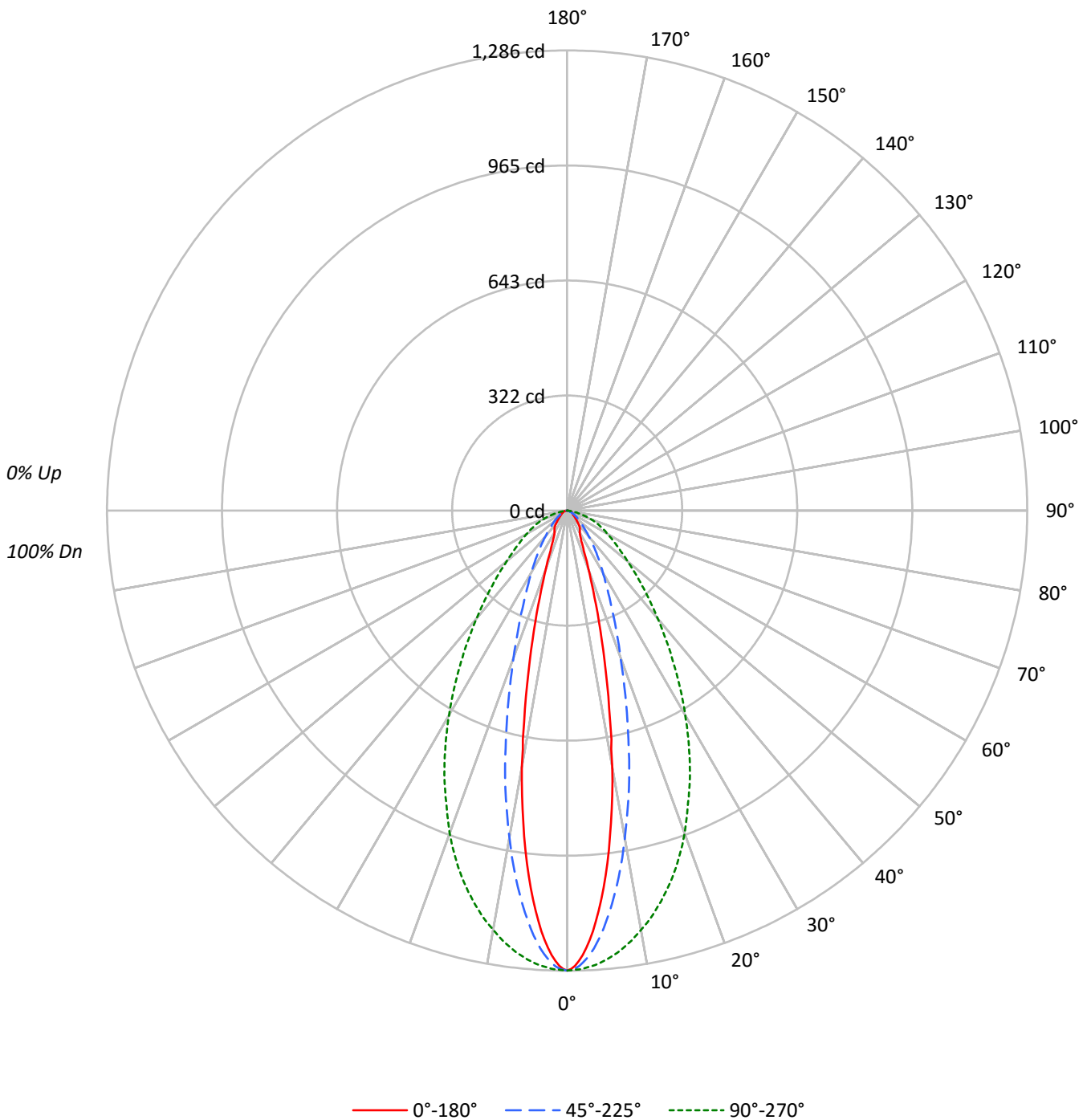
Input Watts (W): 18.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	106	103	110	107	104	102	103	101	99	99	97	96	95	94	93	91					91			
2	105	100	95	91	103	98	94	90	95	91	88	92	89	86	89	86	84	82					82			
3	99	92	86	81	97	90	85	80	87	83	79	85	81	78	83	79	77	75					75			
4	93	85	78	73	91	83	77	73	81	76	72	79	75	71	77	73	70	69					69			
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63					63			
6	83	73	66	62	82	72	66	61	71	65	61	69	64	61	68	64	60	59					59			
7	79	69	62	57	77	68	62	57	67	61	57	65	60	56	64	60	56	55					55			
8	75	64	58	53	74	64	58	53	63	57	53	62	56	53	61	56	53	51					51			
9	71	61	54	50	70	60	54	50	59	54	50	58	53	50	57	53	49	48					48			
10	68	58	51	47	67	57	51	47	56	51	47	55	50	47	55	50	47	45					45			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	101208	101208	101208
5°	86302	92545	99595
10°	58184	74253	95142
15°	30484	53836	88851
20°	14494	36580	80440
25°	8122	25175	70573
30°	6373	18100	60001
35°	5978	13388	49690
40°	5087	9753	40452
45°	4008	7237	32890
50°	3319	5610	27020
55°	2951	4488	23101
60°	2803	3527	20470
65°	2962	2794	18629
70°	3016	2141	16367
75°	2829	1856	12502
80°	2766	1496	8070
85°	2078	1265	4246



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.5	13.0
10°-20°	192.5	24.0
20°-30°	170.0	21.2
30°-40°	132.9	16.6
40°-50°	91.5	11.4
50°-60°	58.2	7.3
60°-70°	34.3	4.3
70°-80°	15.1	1.9
80°-90°	2.9	0.4
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°	467.0	58.2
0°-40°	599.8	74.8
0°-60°	749.5	93.5
0°-90°	801.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	801.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1286	1286	1286	1286	1286	
5°	1092	1116	1171	1231	1260	92
15°	374	456	660	930	1090	105
25°	94	131	290	592	812	47
35°	62	68	139	350	517	38
45°	36	41	65	196	295	28
55°	22	23	33	106	168	20
65°	16	14	15	51	100	16
75°	9	8	6	17	41	10
85°	2	2	1	2	5	3
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°	1285.5	1285.5	1285.5	1285.5	1285.5	1285.5	1285.5	1285.5	1285.5	1285.5	1285.5
0.5°	1280.8	1280.4	1280.0	1279.6	1279.1	1279.4	1280.3	1281.3	1282.2	1283.1	1283.3
1°	1272.4	1272.3	1272.2	1272.1	1272.0	1272.8	1274.4	1276.0	1277.7	1279.4	1280.1
1.5°	1258.8	1259.4	1259.9	1260.4	1260.9	1262.5	1265.2	1267.9	1270.6	1273.3	1274.6
2°	1242.9	1243.9	1244.8	1245.7	1246.7	1249.0	1252.8	1256.5	1260.2	1264.0	1266.6
2.5°	1223.3	1225.2	1227.1	1228.9	1230.8	1234.1	1238.7	1243.4	1248.1	1252.8	1256.9
3°	1202.3	1204.4	1206.7	1208.8	1211.0	1215.2	1221.4	1227.7	1233.9	1240.1	1245.8
3.5°	1177.5	1180.3	1183.1	1185.9	1188.7	1194.0	1202.0	1209.8	1217.8	1225.6	1232.6
4°	1150.9	1154.3	1157.7	1161.1	1164.6	1171.1	1180.5	1189.9	1199.4	1208.8	1218.0
4.5°	1121.9	1126.2	1130.4	1134.7	1138.9	1146.6	1157.7	1168.8	1179.9	1191.1	1202.4
5°	1092.0	1096.9	1102.0	1106.9	1111.9	1120.7	1133.3	1145.8	1158.4	1171.0	1184.7
5.5°	1060.2	1065.9	1071.6	1077.3	1083.0	1093.0	1107.2	1121.5	1135.7	1149.9	1166.1
6°	1027.0	1033.5	1040.1	1046.6	1053.2	1064.5	1080.6	1096.7	1112.8	1128.9	1147.4
6.5°	991.9	999.4	1006.9	1014.4	1021.8	1034.6	1052.5	1070.5	1088.5	1106.4	1127.2
7°	955.5	963.8	972.1	980.4	988.7	1002.9	1023.0	1043.0	1063.1	1083.1	1106.5
7.5°	918.5	927.6	936.6	945.6	954.7	970.3	992.6	1014.7	1037.0	1059.2	1085.0
8°	881.6	891.2	901.0	910.6	920.2	937.2	961.5	985.8	1010.2	1034.5	1062.7
8.5°	843.7	854.1	864.5	874.9	885.3	903.7	929.9	956.2	982.5	1008.8	1039.6
9°	806.3	817.5	828.6	839.7	850.8	870.4	898.4	926.5	954.5	982.6	1016.0
9.5°	767.5	778.4	789.1	800.0	810.7	831.7	862.7	893.9	924.9	955.9	991.8
10°	727.8	739.6	751.3	763.1	774.7	797.1	830.0	863.0	895.9	928.8	967.3
10.5°	677.8	692.7	707.5	722.4	737.3	762.1	797.2	832.2	867.2	902.2	943.2
11°	650.7	663.5	676.2	689.0	701.8	726.7	763.8	800.9	837.9	875.1	918.6
11.5°	603.0	618.5	634.0	649.5	664.9	692.2	731.4	770.5	809.7	848.9	894.5
12°	566.5	582.4	598.3	614.2	630.1	658.5	699.6	740.6	781.7	822.7	870.4
12.5°	531.5	547.7	563.9	580.1	596.3	625.7	668.5	711.2	753.8	796.5	846.4
13°	496.9	513.4	529.7	546.2	562.5	592.9	637.1	681.4	725.7	769.9	822.1
13.5°	463.7	480.3	497.0	513.5	530.2	561.2	606.7	652.3	697.7	743.2	797.5
14°	432.4	449.1	465.9	482.6	499.3	530.8	577.1	623.5	669.8	716.1	772.8
14.5°	402.9	419.5	435.9	452.5	469.0	500.5	547.1	593.6	640.1	686.7	745.9
15°	374.0	390.4	406.8	423.2	439.6	471.5	518.7	566.0	613.2	660.5	721.8
16°	322.1	338.2	354.2	370.4	386.5	418.6	466.8	515.0	563.2	611.4	675.6
17°	275.3	290.9	306.5	322.1	337.7	369.8	418.4	467.0	515.6	564.2	630.9
18°	235.1	250.0	264.9	279.7	294.6	325.9	373.7	421.5	469.2	517.0	586.1
19°	201.9	215.1	228.3	241.5	254.7	285.0	332.6	380.2	427.8	475.4	545.8
20°	173.0	185.9	198.8	211.6	224.5	253.7	299.4	345.2	390.9	436.6	507.9
22.5°	121.5	131.3	141.1	150.8	160.6	186.6	228.8	270.9	313.1	355.3	426.2
25°	93.5	100.1	106.8	113.4	120.0	141.9	178.8	215.9	252.8	289.8	358.2
27.5°	78.5	82.6	86.7	90.7	94.7	112.5	144.0	175.5	206.9	238.4	302.1
30°	70.1	72.4	74.7	76.9	79.3	93.6	119.9	146.4	172.8	199.1	257.2
32.5°	65.9	66.8	67.8	68.7	69.6	80.8	102.2	123.6	145.0	166.4	219.0
35°	62.2	62.5	63.0	63.4	63.9	72.4	89.1	105.8	122.6	139.3	186.8
37.5°	57.0	57.6	58.1	58.6	59.1	65.5	77.9	90.3	102.7	115.0	157.8
40°	49.5	50.5	51.4	52.4	53.3	58.3	67.5	76.6	85.7	94.9	133.0
42.5°	42.1	43.1	44.1	45.2	46.2	50.2	57.2	64.1	71.1	78.1	111.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
45°	36.0	36.7	37.5	38.1	38.9	42.2	47.9	53.6	59.3	65.0	94.6
47.5°	30.9	31.5	32.1	32.7	33.4	35.9	40.5	45.1	49.6	54.2	80.0
50°	27.1	27.7	28.1	28.7	29.2	31.2	34.9	38.5	42.2	45.8	68.2
52.5°	24.3	24.6	25.0	25.2	25.5	27.2	30.1	33.0	35.9	38.8	58.1
55°	21.5	21.7	21.9	22.2	22.3	23.6	25.9	28.1	30.5	32.7	49.3
57.5°	19.6	19.6	19.6	19.6	19.6	20.5	22.2	23.7	25.4	27.1	41.2
60°	17.8	17.7	17.6	17.5	17.4	17.9	19.0	20.2	21.3	22.4	34.3
62.5°	16.8	16.5	16.2	15.9	15.6	15.7	16.4	17.0	17.6	18.2	28.1
65°	15.9	15.5	15.1	14.7	14.2	14.1	14.3	14.6	14.8	15.0	22.8
67.5°	14.5	14.1	13.6	13.3	12.8	12.5	12.4	12.3	12.2	12.2	18.1
70°	13.1	12.7	12.2	11.9	11.4	11.0	10.6	10.2	9.7	9.3	14.0
72.5°	11.7	11.1	10.7	10.1	9.6	9.2	8.7	8.3	7.9	7.5	10.9
75°	9.3	9.2	9.0	8.7	8.5	8.1	7.7	7.1	6.6	6.1	8.3
77.5°	7.5	7.3	7.1	6.8	6.6	6.4	5.9	5.5	5.0	4.7	6.2
80°	6.1	5.9	5.7	5.4	5.2	5.0	4.5	4.1	3.6	3.3	4.0
82.5°	4.2	4.1	4.0	3.9	3.8	3.6	3.3	3.0	2.6	2.3	2.6
85°	2.3	2.3	2.3	2.3	2.3	2.2	2.1	1.8	1.6	1.4	1.5
87.5°	1.4	1.3	1.2	1.1	1.0	0.9	0.9	0.9	0.9	0.9	0.8
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1285.5	1285.5	1285.5	1285.5	1285.5	1285.5	1285.5	1285.5
0.5°	1283.5	1283.8	1284.0	1284.2	1284.3	1284.4	1284.5	1284.5
1°	1280.6	1281.3	1281.9	1282.4	1282.7	1283.0	1283.3	1283.6
1.5°	1276.0	1277.3	1278.8	1279.8	1280.5	1281.2	1281.9	1282.7
2°	1269.2	1271.7	1274.4	1276.2	1277.3	1278.6	1279.7	1280.8
2.5°	1261.1	1265.2	1269.4	1272.2	1273.6	1275.1	1276.5	1278.0
3°	1251.5	1257.2	1263.0	1266.9	1268.9	1271.1	1273.1	1275.2
3.5°	1239.6	1246.5	1253.5	1258.6	1262.1	1265.6	1268.9	1272.4
4°	1227.1	1236.2	1245.4	1252.0	1256.2	1260.3	1264.5	1268.7
4.5°	1213.7	1225.0	1236.3	1244.4	1249.3	1254.3	1259.1	1264.0
5°	1198.3	1212.1	1225.8	1235.7	1241.8	1248.0	1254.1	1260.2
5.5°	1182.4	1198.5	1214.7	1226.4	1233.4	1240.5	1247.5	1254.6
6°	1165.9	1184.3	1202.8	1216.2	1224.4	1232.6	1240.8	1249.0
6.5°	1148.0	1168.8	1189.6	1204.8	1214.4	1224.1	1233.8	1243.4
7°	1130.0	1153.5	1176.9	1194.0	1204.8	1215.5	1226.2	1236.9
7.5°	1110.7	1136.6	1162.3	1181.1	1193.2	1205.3	1217.3	1229.4
8°	1090.9	1119.3	1147.5	1168.4	1182.0	1195.6	1209.2	1222.8
8.5°	1070.5	1101.3	1132.2	1155.2	1170.2	1185.3	1200.3	1215.4
9°	1049.2	1082.6	1116.0	1140.9	1157.4	1173.9	1190.4	1207.0
9.5°	1027.8	1063.7	1099.7	1126.6	1144.6	1162.6	1180.6	1198.5
10°	1005.9	1044.5	1083.0	1112.0	1131.5	1151.0	1170.6	1190.1
10.5°	984.3	1025.3	1066.3	1097.4	1118.4	1139.5	1160.6	1181.7
11°	962.1	1005.7	1049.1	1082.3	1105.0	1127.8	1150.6	1173.3
11.5°	940.1	985.7	1031.3	1066.3	1090.7	1115.1	1139.5	1163.9
12°	918.1	965.7	1013.4	1050.2	1076.1	1102.0	1127.8	1153.7
12.5°	896.3	946.1	995.9	1034.6	1061.8	1089.0	1116.2	1143.4
13°	874.2	926.3	978.5	1018.8	1047.4	1076.0	1104.5	1133.1
13.5°	851.7	905.9	960.1	1002.3	1032.4	1062.6	1092.7	1122.8
14°	829.3	886.0	942.6	986.5	1017.8	1049.0	1080.4	1111.6
14.5°	805.1	864.3	923.5	969.6	1002.5	1035.5	1068.4	1101.3
15°	783.1	844.4	905.6	953.4	987.5	1021.7	1055.9	1090.1
16°	739.8	804.0	868.2	918.8	955.7	992.8	1029.7	1066.7
17°	697.6	764.3	830.9	884.0	923.4	962.8	1002.1	1041.5
18°	655.2	724.3	793.4	848.7	890.3	932.0	973.6	1015.3
19°	616.3	686.7	757.1	814.1	857.6	901.1	944.6	988.2
20°	579.4	650.7	722.0	780.3	825.2	870.2	915.2	960.1
22.5°	497.2	568.1	639.1	697.7	744.2	790.6	837.0	883.5
25°	426.5	494.8	563.2	621.3	669.1	716.9	764.7	812.4
27.5°	365.7	429.4	493.1	548.4	595.2	642.1	688.9	735.8
30°	315.2	373.3	431.4	482.6	527.0	571.3	615.7	660.0
32.5°	271.8	324.4	377.0	423.8	464.6	505.5	546.3	587.1
35°	234.3	281.7	329.2	371.2	407.6	444.1	480.5	517.0
37.5°	200.6	243.4	286.2	323.7	355.9	388.1	420.3	452.5
40°	171.2	209.2	247.4	280.6	308.8	337.1	365.4	393.6
42.5°	145.6	179.3	213.1	242.3	267.1	291.8	316.6	341.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
45°	124.2	153.8	183.4	209.0	230.6	252.2	273.8	295.4
47.5°	105.7	131.5	157.2	179.6	198.5	217.5	236.3	255.2
50°	90.5	112.8	135.2	154.5	171.1	187.6	204.1	220.6
52.5°	77.2	96.5	115.6	132.7	147.4	162.1	176.9	191.7
55°	65.7	82.3	98.8	113.9	127.4	141.1	154.6	168.3
57.5°	55.3	69.5	83.6	97.0	109.7	122.4	135.0	147.7
60°	46.1	58.0	69.8	81.7	93.8	105.8	117.9	130.0
62.5°	38.0	47.9	57.7	68.4	80.1	91.7	103.4	115.0
65°	30.8	38.6	46.6	56.0	67.0	78.0	89.0	100.0
67.5°	24.2	30.2	36.3	44.5	54.9	65.3	75.6	86.0
70°	18.7	23.4	28.0	34.9	43.9	53.0	62.0	71.1
72.5°	14.3	17.8	21.2	26.5	33.7	40.9	48.0	55.2
75°	10.7	12.9	15.2	19.1	24.6	30.1	35.6	41.1
77.5°	7.6	9.1	10.5	13.1	16.8	20.6	24.3	28.0
80°	4.8	5.4	6.2	7.8	10.3	12.8	15.2	17.8
82.5°	3.0	3.3	3.6	4.4	5.6	6.8	8.1	9.3
85°	1.6	1.7	1.8	2.2	2.8	3.5	4.0	4.7
87.5°	0.7	0.7	0.6	0.6	0.7	0.7	0.8	0.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)