

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: P273375

Luminaire Tested: **0.03-5W-830-10-ID-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P273375  
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-830-10-ID-STD-UNV-AN-3F0  
Description: iO LIGHTING SERIES .75 LINEAR LED LUMINAIRE, 10 DEGREE OPTIC.  
VERY HIGH OUTPUT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 857.6 lumens  
Efficiency: N/A  
Efficacy: 46.9 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

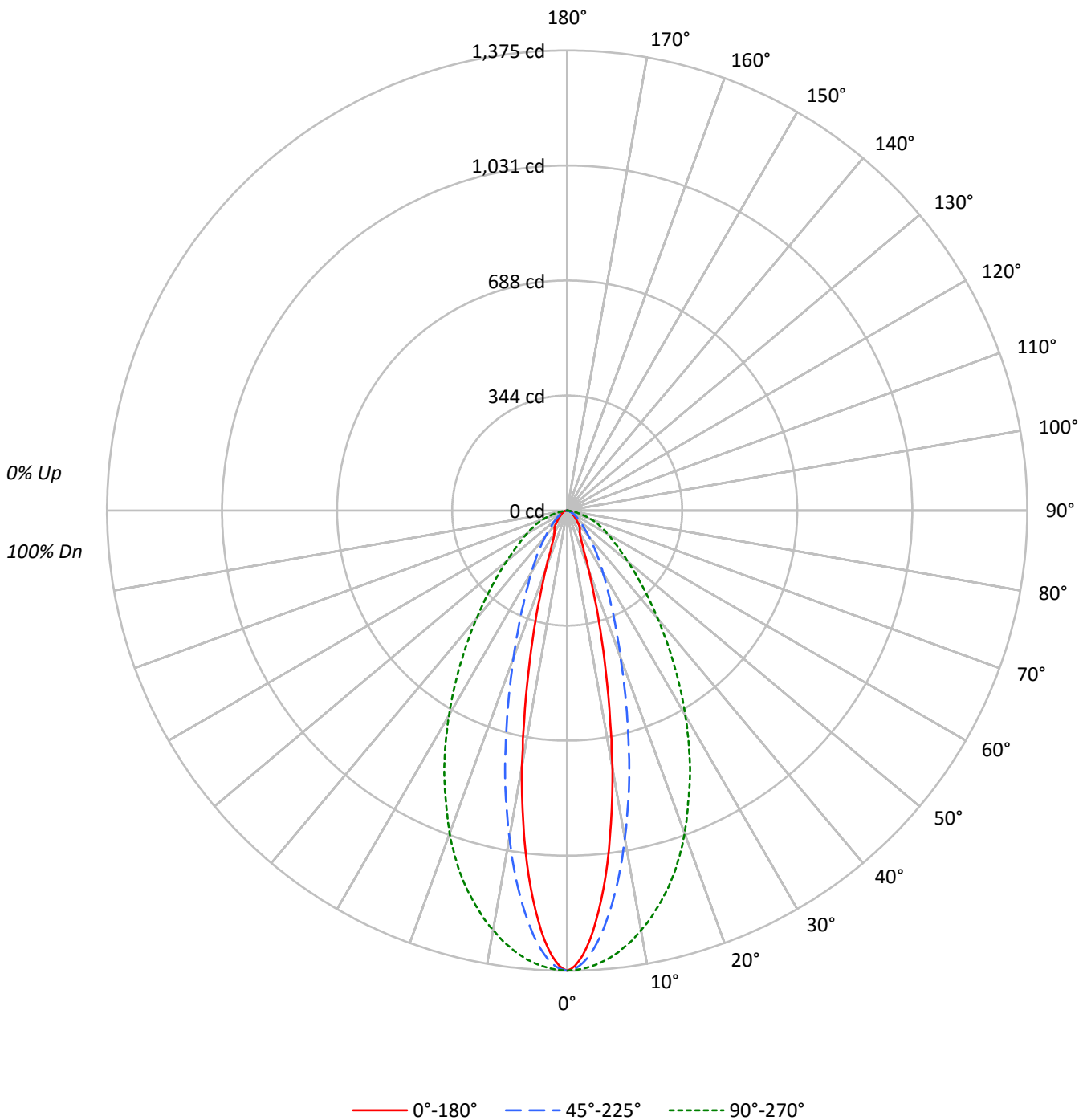
Input Watts (W): 18.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	108238	108238	108238
5°	92300	98979	106518
10°	62229	79417	101762
15°	32603	57577	95030
20°	15500	39118	86037
25°	8687	26929	75481
30°	6818	19364	64173
35°	6391	14321	53140
40°	5447	10432	43268
45°	4287	7738	35184
50°	3552	6002	28906
55°	3157	4804	24707
60°	2992	3779	21887
65°	3167	2981	19933
70°	3223	2302	17495
75°	3042	1977	13384
80°	2947	1587	8614
85°	2258	1355	4517



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.8	13.0
10°-20°	205.9	24.0
20°-30°	181.8	21.2
30°-40°	142.1	16.6
40°-50°	97.9	11.4
50°-60°	62.2	7.3
60°-70°	36.7	4.3
70°-80°	16.2	1.9
80°-90°	3.1	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°	499.4	58.2
0°-40°	641.6	74.8
0°-60°	801.6	93.5
0°-90°	857.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	857.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1375	1375	1375	1375	1375	
5°	1168	1194	1252	1316	1348	99
15°	400	487	706	994	1166	112
25°	100	140	310	633	869	50
35°	66	73	149	375	553	41
45°	38	43	70	210	316	30
55°	23	25	35	114	180	21
65°	17	15	16	55	107	17
75°	10	9	6	18	44	11
85°	2	2	2	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°	1374.8	1374.8	1374.8	1374.8	1374.8	1374.8	1374.8	1374.8	1374.8	1374.8	1374.8
0.5°	1369.8	1369.4	1368.9	1368.5	1368.0	1368.3	1369.3	1370.3	1371.3	1372.3	1372.5
1°	1360.8	1360.7	1360.6	1360.5	1360.4	1361.2	1363.0	1364.7	1366.5	1368.3	1369.0
1.5°	1346.3	1346.9	1347.4	1348.0	1348.5	1350.2	1353.1	1356.0	1358.9	1361.8	1363.2
2°	1329.4	1330.4	1331.4	1332.4	1333.4	1335.9	1339.9	1343.8	1347.8	1351.8	1354.6
2.5°	1308.4	1310.4	1312.4	1314.4	1316.4	1319.9	1324.9	1329.9	1334.9	1339.9	1344.2
3°	1285.9	1288.2	1290.6	1292.9	1295.2	1299.7	1306.4	1313.1	1319.7	1326.4	1332.5
3.5°	1259.4	1262.4	1265.4	1268.4	1271.4	1277.1	1285.6	1294.0	1302.5	1310.9	1318.3
4°	1230.9	1234.6	1238.2	1241.9	1245.6	1252.5	1262.6	1272.7	1282.8	1292.9	1302.7
4.5°	1199.9	1204.5	1209.0	1213.6	1218.1	1226.3	1238.2	1250.1	1262.0	1273.9	1286.0
5°	1167.9	1173.2	1178.6	1183.9	1189.2	1198.6	1212.1	1225.5	1239.0	1252.4	1267.1
5.5°	1133.9	1140.0	1146.1	1152.2	1158.3	1169.0	1184.2	1199.5	1214.7	1229.9	1247.2
6°	1098.4	1105.4	1112.4	1119.4	1126.4	1138.5	1155.7	1173.0	1190.2	1207.4	1227.2
6.5°	1060.9	1068.9	1076.9	1084.9	1092.9	1106.5	1125.7	1145.0	1164.2	1183.4	1205.6
7°	1021.9	1030.8	1039.7	1048.6	1057.5	1072.6	1094.1	1115.5	1137.0	1158.4	1183.5
7.5°	982.4	992.1	1001.7	1011.4	1021.1	1037.8	1061.6	1085.3	1109.1	1132.9	1160.5
8°	942.9	953.2	963.6	973.9	984.2	1002.4	1028.4	1054.4	1080.4	1106.4	1136.6
8.5°	902.4	913.5	924.6	935.7	946.8	966.5	994.6	1022.7	1050.8	1078.9	1111.9
9°	862.4	874.3	886.2	898.1	910.0	930.9	960.9	990.9	1020.9	1050.9	1086.6
9.5°	820.9	832.5	844.0	855.6	867.1	889.5	922.7	956.0	989.2	1022.4	1060.8
10°	778.4	791.0	803.5	816.1	828.6	852.5	887.7	923.0	958.2	993.4	1034.6
10.5°	724.9	740.8	756.7	772.6	788.5	815.1	852.6	890.0	927.5	964.9	1008.8
11°	695.9	709.6	723.2	736.9	750.6	777.2	816.9	856.6	896.2	935.9	982.5
11.5°	644.9	661.5	678.0	694.6	711.1	740.3	782.2	824.1	866.0	907.9	956.7
12°	605.9	622.9	639.9	656.9	673.9	704.3	748.2	792.1	836.0	879.9	930.9
12.5°	568.4	585.7	603.1	620.4	637.7	669.2	714.9	760.6	806.2	851.9	905.2
13°	531.4	549.0	566.5	584.1	601.6	634.1	681.4	728.7	776.1	823.4	879.2
13.5°	495.9	513.7	531.5	549.2	567.0	600.2	648.9	697.6	746.2	794.9	852.9
14°	462.4	480.3	498.2	516.1	534.0	567.7	617.2	666.8	716.3	765.9	826.5
14.5°	431.0	448.6	466.2	483.9	501.6	535.3	585.1	634.8	684.6	734.4	797.7
15°	400.0	417.6	435.1	452.6	470.1	504.2	554.7	605.3	655.8	706.4	772.0
16°	344.5	361.7	378.9	396.2	413.4	447.8	499.2	550.8	602.3	653.9	722.6
17°	294.5	311.2	327.8	344.5	361.2	395.5	447.5	499.4	551.4	603.4	674.7
18°	251.5	267.4	283.3	299.2	315.1	348.6	399.7	450.7	501.8	552.9	626.8
19°	216.0	230.1	244.2	258.3	272.4	304.9	355.8	406.7	457.5	508.4	583.7
20°	185.0	198.8	212.6	226.3	240.1	271.4	320.3	369.2	418.1	466.9	543.2
22.5°	130.0	140.4	150.9	161.3	171.8	199.6	244.7	289.8	334.9	380.0	455.8
25°	100.0	107.1	114.2	121.3	128.4	151.8	191.3	230.9	270.4	310.0	383.1
27.5°	84.0	88.3	92.7	97.0	101.3	120.3	154.0	187.7	221.3	255.0	323.1
30°	75.0	77.4	79.9	82.3	84.8	100.1	128.3	156.6	184.8	213.0	275.1
32.5°	70.5	71.5	72.5	73.5	74.5	86.4	109.3	132.2	155.1	178.0	234.3
35°	66.5	66.9	67.4	67.8	68.3	77.4	95.3	113.2	131.1	149.0	199.8
37.5°	61.0	61.6	62.1	62.7	63.2	70.1	83.3	96.6	109.8	123.0	168.8
40°	53.0	54.0	55.0	56.0	57.0	62.4	72.2	81.9	91.7	101.5	142.3
42.5°	45.0	46.1	47.2	48.3	49.4	53.7	61.2	68.6	76.1	83.5	119.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
45°	38.5	39.3	40.1	40.8	41.6	45.1	51.2	57.3	63.4	69.5	101.2
47.5°	33.0	33.7	34.3	35.0	35.7	38.4	43.3	48.2	53.1	58.0	85.6
50°	29.0	29.6	30.1	30.7	31.2	33.4	37.3	41.2	45.1	49.0	72.9
52.5°	26.0	26.3	26.7	27.0	27.3	29.1	32.2	35.3	38.4	41.5	62.1
55°	23.0	23.2	23.4	23.7	23.9	25.2	27.7	30.1	32.6	35.0	52.7
57.5°	21.0	21.0	21.0	21.0	21.0	21.9	23.7	25.4	27.2	29.0	44.1
60°	19.0	18.9	18.8	18.7	18.6	19.1	20.3	21.6	22.8	24.0	36.7
62.5°	18.0	17.7	17.3	17.0	16.7	16.8	17.5	18.2	18.8	19.5	30.1
65°	17.0	16.6	16.1	15.7	15.2	15.1	15.3	15.6	15.8	16.0	24.4
67.5°	15.5	15.1	14.6	14.2	13.7	13.4	13.3	13.2	13.1	13.0	19.4
70°	14.0	13.6	13.1	12.7	12.2	11.8	11.3	10.9	10.4	10.0	15.0
72.5°	12.5	11.9	11.4	10.8	10.3	9.8	9.3	8.9	8.4	8.0	11.7
75°	10.0	9.8	9.6	9.3	9.1	8.7	8.2	7.6	7.1	6.5	8.9
77.5°	8.0	7.8	7.6	7.3	7.1	6.8	6.3	5.9	5.4	5.0	6.6
80°	6.5	6.3	6.1	5.8	5.6	5.3	4.8	4.4	3.9	3.5	4.3
82.5°	4.5	4.4	4.3	4.2	4.1	3.8	3.5	3.2	2.8	2.5	2.8
85°	2.5	2.5	2.5	2.5	2.5	2.4	2.2	1.9	1.7	1.5	1.6
87.5°	1.5	1.4	1.3	1.2	1.1	1.0	1.0	1.0	1.0	1.0	0.9
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°	1374.8	1374.8	1374.8	1374.8	1374.8	1374.8	1374.8	1374.8
0.5°	1372.7	1373.0	1373.2	1373.4	1373.5	1373.6	1373.7	1373.8
1°	1369.6	1370.3	1371.0	1371.5	1371.8	1372.1	1372.5	1372.8
1.5°	1364.7	1366.1	1367.6	1368.7	1369.5	1370.2	1371.0	1371.8
2°	1357.4	1360.1	1362.9	1364.9	1366.1	1367.4	1368.6	1369.8
2.5°	1348.7	1353.1	1357.6	1360.6	1362.1	1363.7	1365.2	1366.8
3°	1338.6	1344.6	1350.7	1354.9	1357.1	1359.4	1361.6	1363.8
3.5°	1325.8	1333.2	1340.7	1346.1	1349.8	1353.5	1357.1	1360.8
4°	1312.5	1322.2	1332.0	1339.1	1343.5	1347.9	1352.4	1356.8
4.5°	1298.1	1310.2	1322.3	1331.0	1336.2	1341.5	1346.6	1351.8
5°	1281.7	1296.4	1311.1	1321.7	1328.2	1334.8	1341.3	1347.8
5.5°	1264.6	1281.9	1299.2	1311.7	1319.2	1326.8	1334.3	1341.9
6°	1247.0	1266.7	1286.5	1300.8	1309.6	1318.3	1327.1	1335.9
6.5°	1227.8	1250.1	1272.3	1288.6	1298.9	1309.2	1319.6	1329.9
7°	1208.6	1233.7	1258.8	1277.1	1288.6	1300.0	1311.5	1322.9
7.5°	1188.0	1215.6	1243.1	1263.3	1276.2	1289.1	1302.0	1314.9
8°	1166.8	1197.1	1227.3	1249.7	1264.2	1278.8	1293.3	1307.9
8.5°	1144.9	1177.9	1210.9	1235.5	1251.6	1267.7	1283.8	1299.9
9°	1122.2	1157.9	1193.6	1220.2	1237.9	1255.6	1273.2	1290.9
9.5°	1099.3	1137.7	1176.2	1205.0	1224.2	1243.5	1262.7	1281.9
10°	1075.8	1117.1	1158.3	1189.3	1210.2	1231.1	1252.0	1272.9
10.5°	1052.7	1096.6	1140.5	1173.7	1196.2	1218.8	1241.3	1263.9
11°	1029.0	1075.6	1122.1	1157.6	1181.9	1206.2	1230.6	1254.9
11.5°	1005.5	1054.2	1103.0	1140.5	1166.6	1192.7	1218.8	1244.9
12°	981.9	1032.9	1083.9	1123.2	1150.9	1178.6	1206.2	1233.9
12.5°	958.6	1011.9	1065.2	1106.5	1135.6	1164.7	1193.8	1222.9
13°	935.0	990.7	1046.5	1089.7	1120.2	1150.8	1181.3	1211.9
13.5°	910.9	968.9	1026.9	1072.0	1104.2	1136.5	1168.7	1200.9
14°	887.0	947.6	1008.1	1055.1	1088.6	1122.0	1155.5	1188.9
14.5°	861.1	924.4	987.7	1037.0	1072.2	1107.5	1142.7	1177.9
15°	837.5	903.1	968.6	1019.7	1056.2	1092.8	1129.3	1165.9
16°	791.2	859.9	928.6	982.7	1022.2	1061.8	1101.3	1140.9
17°	746.1	817.4	888.7	945.5	987.6	1029.7	1071.8	1113.9
18°	700.7	774.6	848.5	907.7	952.2	996.8	1041.3	1085.9
19°	659.1	734.4	809.7	870.7	917.2	963.8	1010.3	1056.9
20°	619.6	695.9	772.2	834.5	882.6	930.7	978.8	1026.9
22.5°	531.7	607.6	683.5	746.2	795.9	845.6	895.2	944.9
25°	456.1	529.2	602.3	664.5	715.6	766.7	817.8	868.9
27.5°	391.2	459.2	527.3	586.5	636.6	686.7	736.8	786.9
30°	337.2	399.3	461.3	516.1	563.6	611.0	658.5	705.9
32.5°	290.7	347.0	403.3	453.2	496.9	540.6	584.2	627.9
35°	250.6	301.3	352.1	397.0	436.0	474.9	513.9	552.9
37.5°	214.6	260.3	306.1	346.2	380.7	415.1	449.5	483.9
40°	183.1	223.8	264.6	300.1	330.3	360.6	390.8	421.0
42.5°	155.7	191.8	227.9	259.2	285.7	312.1	338.6	365.0





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
45°	132.8	164.5	196.2	223.6	246.7	269.8	292.9	316.0
47.5°	113.1	140.7	168.2	192.1	212.3	232.6	252.8	273.0
50°	96.8	120.7	144.6	165.3	183.0	200.7	218.3	236.0
52.5°	82.6	103.2	123.7	141.9	157.7	173.4	189.2	205.0
55°	70.3	88.0	105.7	121.8	136.3	150.9	165.4	180.0
57.5°	59.2	74.3	89.4	103.8	117.3	130.9	144.4	158.0
60°	49.3	62.0	74.7	87.4	100.3	113.2	126.1	139.0
62.5°	40.6	51.2	61.7	73.2	85.7	98.1	110.6	123.0
65°	32.9	41.3	49.8	59.9	71.7	83.4	95.2	107.0
67.5°	25.9	32.3	38.8	47.6	58.7	69.8	80.9	92.0
70°	20.0	25.0	30.0	37.3	47.0	56.7	66.3	76.0
72.5°	15.3	19.0	22.7	28.3	36.0	43.7	51.3	59.0
75°	11.4	13.8	16.3	20.4	26.3	32.2	38.1	44.0
77.5°	8.1	9.7	11.2	14.0	18.0	22.0	26.0	30.0
80°	5.1	5.8	6.6	8.3	11.0	13.7	16.3	19.0
82.5°	3.2	3.5	3.8	4.7	6.0	7.3	8.7	10.0
85°	1.7	1.8	1.9	2.3	3.0	3.7	4.3	5.0
87.5°	0.8	0.7	0.6	0.6	0.7	0.8	0.9	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)