

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: NEO-RAY

Report Number: P333066

Luminaire Tested: **S124RDIW-S795D1050U835-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333066  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124RDIW-S795D1050U835-4F0-1E-UDD-F1  
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 795 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1050 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6847.6 lumens  
Efficiency: N/A  
Efficacy: 130.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: General Diffuse

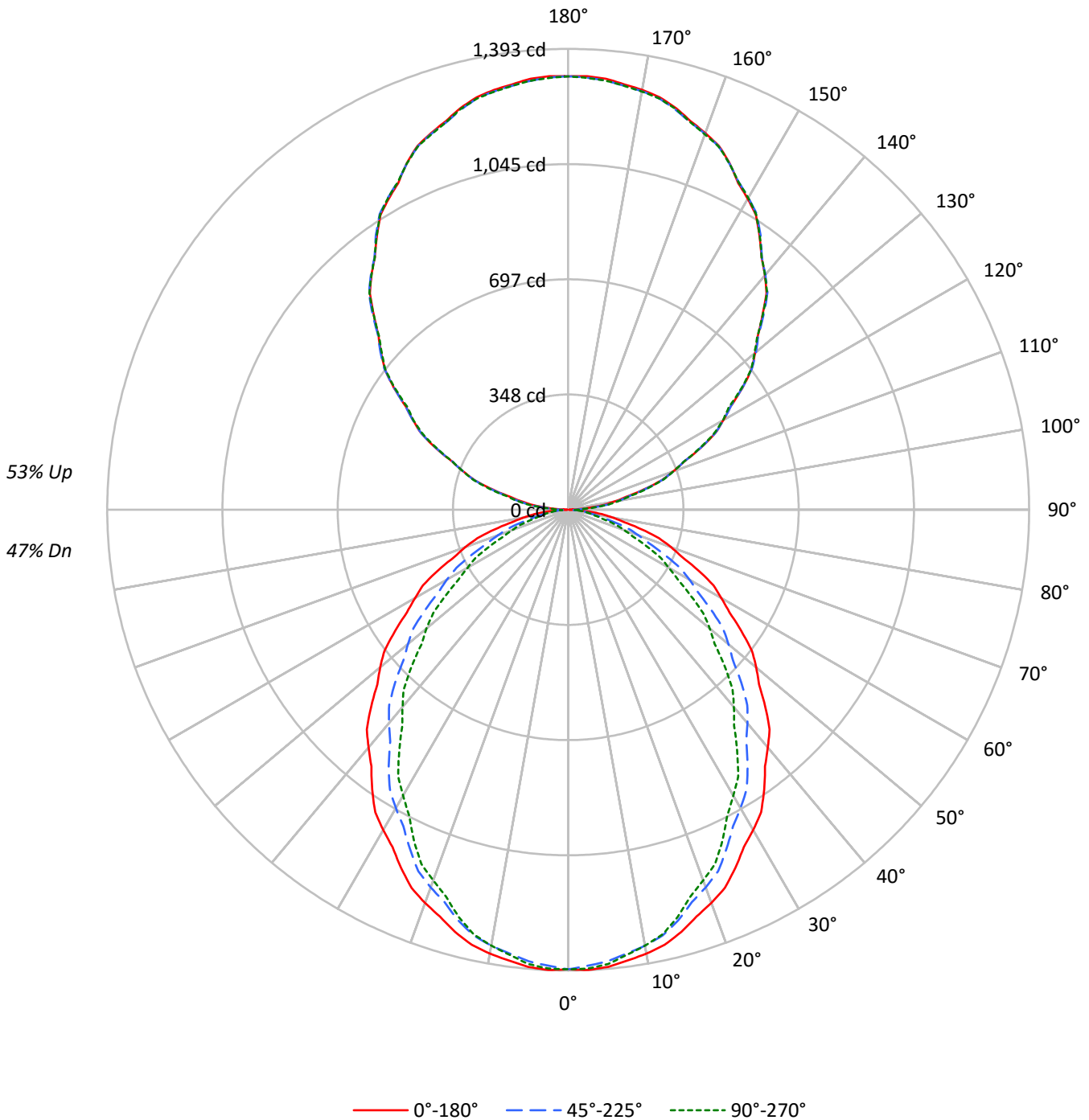
Input Watts (W): 52.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	106	106	106	106	98	98	98	98	82	82	82	67	67	67	53	53	53	47					47			
1	97	93	89	86	89	86	83	80	72	70	68	59	58	56	47	46	45					40				
2	89	82	76	71	81	75	70	66	63	60	56	52	50	47	42	40	39					34				
3	81	72	65	59	74	66	60	55	56	51	48	46	43	40	37	35	33					29				
4	74	64	56	50	68	59	52	47	50	45	41	41	38	35	34	31	29					25				
5	68	57	49	43	63	53	46	40	45	39	35	37	33	30	30	28	25					22				
6	63	51	43	37	58	47	40	35	40	35	31	34	30	26	28	25	22					19				
7	58	46	38	33	53	43	36	31	37	31	27	31	27	24	25	22	20					17				
8	54	42	34	29	50	39	32	27	33	28	24	28	24	21	23	20	18					15				
9	50	38	31	26	46	36	29	25	31	25	22	26	22	19	22	18	16					14				
10	47	35	28	23	43	33	26	22	28	23	20	24	20	17	20	17	15					13				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	11215	11215	11215
5°	11240	11102	11171
10°	11170	10969	10969
15°	11041	10739	10659
20°	10865	10436	10244
25°	10640	10081	9825
30°	10421	9707	9300
35°	10178	9319	8774
40°	9887	8878	8205
45°	9618	8440	7626
50°	9311	7935	7013
55°	8983	7410	6348
60°	8622	6835	5667
65°	8290	6117	4999
70°	7808	5323	4244
75°	7199	4414	3450
80°	6281	3361	3166
85°	5317	3057	2853



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	130.5	1.9
10°-20°	363.9	5.3
20°-30°	525.5	7.7
30°-40°	595.6	8.7
40°-50°	575.2	8.4
50°-60°	478.3	7.0
60°-70°	330.3	4.8
70°-80°	167.4	2.4
80°-90°	46.9	0.7
90°-100°	86.4	1.3
100°-110°	255.9	3.7
110°-120°	434.4	6.3
120°-130°	572.8	8.4
130°-140°	643.3	9.4
140°-150°	632.1	9.2
150°-160°	531.7	7.8
160°-170°	353.7	5.2
170°-180°	123.9	1.8
0°-30°	1019.8	14.9
0°-40°	1615.5	23.6
0°-60°	2668.9	39.0
0°-90°	3213.4	46.9
90°-120°	776.7	11.3
90°-150°	2624.9	38.3
90°-180°	3634.0	53.1
0°-180°	6847.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1389	1389	1389	1389	1389	
5°	1387	1382	1370	1380	1378	132
15°	1321	1311	1285	1282	1275	372
25°	1194	1174	1132	1114	1103	550
35°	1033	998	946	910	890	645
45°	842	802	739	689	668	649
55°	638	594	526	473	451	571
65°	434	387	320	276	262	428
75°	231	191	142	118	111	244
85°	57	37	33	31	31	65
90°	3	14	22	28	30	7
95°	61	70	77	80	80	68
105°	236	237	241	244	247	250
115°	442	442	440	439	438	435
125°	643	643	642	640	638	573
135°	830	835	836	834	831	642
145°	1008	1012	1013	1012	1009	631
155°	1155	1155	1154	1158	1154	531
165°	1257	1254	1252	1258	1254	354
175°	1308	1303	1302	1308	1302	124
180°	1310	1310	1310	1310	1310	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1389.2	1389.2	1389.2	1389.2	1389.2	1389.2	1389.2	1389.2	1389.2	1389.2	1389.2
2.5°	1392.6	1391.8	1391.0	1390.3	1389.5	1388.1	1386.0	1384.0	1381.9	1379.8	1381.9
5°	1387.0	1386.1	1385.1	1384.2	1383.2	1381.4	1378.5	1375.7	1372.8	1370.0	1372.4
7.5°	1374.5	1373.5	1372.5	1371.5	1370.5	1368.2	1364.5	1360.8	1357.1	1353.4	1354.9
10°	1362.6	1361.4	1360.2	1359.0	1357.8	1355.1	1350.9	1346.6	1342.4	1338.1	1339.0
12.5°	1347.2	1345.9	1344.5	1343.1	1341.8	1338.6	1333.6	1328.5	1323.5	1318.5	1319.1
15°	1321.1	1319.0	1316.8	1314.7	1312.6	1308.6	1302.6	1296.7	1290.8	1284.9	1284.4
17.5°	1289.4	1286.3	1283.2	1280.2	1277.1	1272.0	1264.9	1257.8	1250.7	1243.6	1242.3
20°	1264.7	1261.6	1258.6	1255.5	1252.4	1246.9	1238.8	1230.8	1222.7	1214.7	1212.8
22.5°	1237.5	1234.0	1230.6	1227.1	1223.7	1217.6	1209.0	1200.4	1191.8	1183.2	1180.4
25°	1194.5	1190.2	1186.0	1181.7	1177.5	1170.5	1160.8	1151.1	1141.4	1131.7	1127.7
27.5°	1149.4	1144.1	1138.7	1133.4	1128.0	1120.2	1109.8	1099.5	1089.1	1078.8	1073.8
30°	1117.9	1112.0	1106.1	1100.2	1094.3	1085.8	1074.7	1063.6	1052.4	1041.3	1035.4
32.5°	1084.7	1078.1	1071.4	1064.7	1058.1	1049.0	1037.5	1026.0	1014.5	1003.0	996.2
35°	1032.8	1025.3	1017.7	1010.1	1002.6	992.9	981.1	969.2	957.4	945.6	937.6
37.5°	977.3	969.5	961.7	953.9	946.1	935.7	922.6	909.5	896.4	883.3	874.3
40°	938.2	930.4	922.6	914.8	907.0	896.3	882.8	869.4	855.9	842.4	832.5
42.5°	900.7	892.5	884.4	876.2	868.0	856.9	842.9	828.8	814.8	800.7	790.6
45°	842.4	833.7	824.9	816.2	807.4	796.0	781.8	767.6	753.4	739.3	727.7
47.5°	782.2	773.2	764.2	755.1	746.1	734.2	719.5	704.7	690.0	675.2	663.2
50°	741.4	732.2	722.9	713.7	704.5	692.3	677.2	662.1	646.9	631.8	620.0
52.5°	699.7	690.7	681.6	672.6	663.6	651.3	635.8	620.3	604.8	589.3	577.3
55°	638.2	628.7	619.3	609.8	600.4	588.0	572.6	557.2	541.9	526.5	514.2
57.5°	577.4	567.5	557.7	547.9	538.0	525.5	510.4	495.3	480.2	465.0	452.6
60°	534.0	524.5	515.1	505.6	496.1	483.9	468.7	453.6	438.5	423.3	411.0
62.5°	494.8	485.0	475.2	465.3	455.5	442.8	427.3	411.8	396.3	380.8	369.4
65°	434.0	423.8	413.6	403.5	393.3	380.7	365.5	350.4	335.3	320.2	310.0
67.5°	370.8	361.1	351.3	341.6	331.8	320.0	305.9	291.9	277.8	263.8	255.0
70°	330.8	320.9	310.9	301.0	291.1	279.4	265.9	252.4	239.0	225.5	217.7
72.5°	288.3	279.3	270.3	261.3	252.3	241.5	228.8	216.0	203.3	190.6	183.9
75°	230.8	222.1	213.3	204.6	195.8	185.9	174.8	163.7	152.6	141.5	136.0
77.5°	172.5	165.1	157.7	150.3	142.8	134.6	125.7	116.7	107.7	98.7	95.5
80°	135.1	128.2	121.4	114.5	107.7	100.7	93.6	86.5	79.4	72.3	71.6
82.5°	102.8	96.5	90.2	83.9	77.6	72.4	68.4	64.3	60.2	56.2	55.6
85°	57.4	52.7	48.0	43.3	38.5	35.8	35.1	34.4	33.7	33.0	32.5
87.5°	20.2	19.2	18.1	17.1	16.1	15.7	15.9	16.0	16.2	16.4	16.5
90°	3.0	5.5	8.0	10.5	12.9	15.1	16.9	18.7	20.5	22.3	23.6
92.5°	21.7	24.5	27.4	30.2	33.0	35.1	36.3	37.6	38.9	40.1	40.9
95°	60.8	62.8	64.8	66.9	68.9	70.7	72.3	73.8	75.4	77.0	77.7
97.5°	106.2	107.8	109.4	111.0	112.7	114.4	116.2	118.1	119.9	121.8	122.6
100°	141.8	142.7	143.6	144.5	145.4	146.9	148.9	150.9	153.0	155.0	155.4
102.5°	179.1	179.5	179.8	180.2	180.5	181.6	183.5	185.3	187.2	189.0	189.7
105°	236.0	236.3	236.5	236.7	236.9	237.5	238.4	239.3	240.2	241.1	241.8
107.5°	295.8	296.1	296.3	296.6	296.9	297.1	297.2	297.4	297.5	297.6	298.3
110°	336.3	336.8	337.2	337.7	338.1	338.2	338.0	337.8	337.6	337.3	336.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	378.5	378.6	378.7	378.7	378.8	378.7	378.3	377.9	377.5	377.1	377.0
115°	441.7	441.7	441.7	441.7	441.7	441.5	441.0	440.6	440.1	439.7	439.4
117.5°	501.3	501.4	501.6	501.8	502.0	501.9	501.6	501.3	501.0	500.6	499.9
120°	541.0	541.9	542.8	543.7	544.6	544.7	544.0	543.3	542.7	542.0	540.9
122.5°	582.3	582.7	583.0	583.4	583.7	583.8	583.4	583.1	582.8	582.5	581.7
125°	643.3	643.3	643.3	643.3	643.3	643.2	642.9	642.7	642.5	642.3	641.8
127.5°	698.6	699.3	699.9	700.6	701.3	701.5	701.1	700.7	700.4	700.0	699.6
130°	737.5	738.2	738.8	739.5	740.2	740.5	740.5	740.5	740.5	740.5	740.1
132.5°	777.2	777.7	778.2	778.7	779.2	779.3	779.2	779.0	778.8	778.6	778.2
135°	829.7	831.0	832.4	833.7	835.1	835.8	835.8	835.8	835.8	835.8	835.3
137.5°	886.8	887.4	888.1	888.7	889.3	889.8	890.2	890.6	890.9	891.3	890.7
140°	924.9	925.4	925.8	926.3	926.7	926.9	926.9	926.9	926.9	926.9	926.7
142.5°	959.8	960.2	960.7	961.1	961.6	961.7	961.5	961.3	961.2	961.0	960.9
145°	1008.0	1008.9	1009.8	1010.7	1011.6	1012.1	1012.4	1012.6	1012.8	1013.0	1012.8
147.5°	1055.8	1056.9	1058.0	1059.0	1060.1	1060.6	1060.4	1060.2	1060.0	1059.8	1059.7
150°	1085.0	1085.9	1086.8	1087.7	1088.6	1089.0	1089.0	1089.0	1089.0	1089.0	1089.0
152.5°	1112.5	1113.1	1113.6	1114.1	1114.7	1115.0	1115.2	1115.4	1115.6	1115.8	1116.3
155°	1154.9	1154.9	1154.9	1154.9	1154.9	1154.8	1154.5	1154.3	1154.1	1153.9	1154.8
157.5°	1190.5	1190.1	1189.7	1189.3	1188.9	1188.7	1188.6	1188.6	1188.5	1188.5	1189.2
160°	1211.6	1211.4	1211.1	1210.9	1210.7	1210.5	1210.2	1210.0	1209.8	1209.6	1210.2
162.5°	1231.0	1230.5	1229.9	1229.3	1228.7	1228.3	1228.1	1227.9	1227.6	1227.4	1228.6
165°	1257.2	1256.5	1255.8	1255.2	1254.5	1253.9	1253.5	1253.0	1252.6	1252.1	1253.5
167.5°	1277.2	1276.3	1275.4	1274.4	1273.5	1273.0	1273.1	1273.1	1273.1	1273.2	1274.5
170°	1288.6	1287.5	1286.3	1285.2	1284.1	1283.6	1283.9	1284.1	1284.3	1284.5	1285.9
172.5°	1296.7	1295.7	1294.8	1293.9	1292.9	1292.5	1292.5	1292.6	1292.6	1292.6	1294.2
175°	1307.8	1306.7	1305.6	1304.5	1303.3	1302.7	1302.4	1302.2	1302.0	1301.8	1303.3
177.5°	1311.5	1310.6	1309.7	1308.8	1307.9	1307.4	1307.4	1307.4	1307.4	1307.4	1308.7
180°	1309.9	1309.9	1309.9	1309.9	1309.9	1309.9	1309.9	1309.9	1309.9	1309.9	1309.9



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1389.2	1389.2	1389.2	1389.2	1389.2	1389.2	1389.2	1389.2
2.5°	1384.0	1386.0	1388.1	1389.1	1388.9	1388.7	1388.5	1388.3
5°	1374.7	1377.1	1379.5	1380.4	1379.9	1379.5	1379.0	1378.5
7.5°	1356.4	1358.0	1359.5	1359.8	1359.1	1358.3	1357.6	1356.8
10°	1340.0	1340.9	1341.9	1341.9	1340.9	1340.0	1339.0	1338.1
12.5°	1319.7	1320.2	1320.8	1320.4	1319.1	1317.8	1316.4	1315.1
15°	1284.0	1283.5	1283.0	1282.0	1280.3	1278.6	1277.0	1275.3
17.5°	1241.0	1239.7	1238.3	1236.4	1233.9	1231.4	1228.9	1226.4
20°	1210.9	1209.0	1207.1	1204.7	1201.6	1198.5	1195.4	1192.4
22.5°	1177.6	1174.7	1171.9	1169.2	1166.7	1164.2	1161.7	1159.2
25°	1123.7	1119.7	1115.7	1112.5	1110.1	1107.8	1105.4	1103.0
27.5°	1068.8	1063.9	1058.9	1054.7	1051.3	1047.9	1044.5	1041.1
30°	1029.5	1023.6	1017.7	1012.8	1009.1	1005.3	1001.5	997.7
32.5°	989.3	982.5	975.6	970.4	966.8	963.2	959.6	956.0
35°	929.5	921.5	913.5	907.3	903.1	898.8	894.5	890.3
37.5°	865.3	856.3	847.3	840.7	836.5	832.2	828.0	823.7
40°	822.6	812.6	802.7	795.6	791.4	787.1	782.9	778.6
42.5°	780.5	770.4	760.3	753.0	748.5	744.1	739.7	735.2
45°	716.1	704.5	692.9	685.0	680.7	676.5	672.2	668.0
47.5°	651.2	639.2	627.2	618.8	614.2	609.5	604.8	600.1
50°	608.2	596.4	584.5	576.4	571.9	567.4	562.9	558.4
52.5°	565.3	553.3	541.2	532.9	528.2	523.5	518.9	514.2
55°	501.9	489.6	477.4	469.0	464.5	460.0	455.5	451.0
57.5°	440.1	427.6	415.1	407.2	403.8	400.4	397.0	393.6
60°	398.8	386.5	374.2	366.1	362.4	358.6	354.8	351.0
62.5°	358.1	346.8	335.4	328.2	325.2	322.2	319.1	316.1
65°	299.8	289.7	279.5	273.0	270.2	267.3	264.5	261.7
67.5°	246.3	237.6	228.8	222.9	219.8	216.6	213.5	210.4
70°	209.9	202.1	194.3	189.2	186.9	184.5	182.1	179.8
72.5°	177.3	170.6	163.9	159.5	157.4	155.2	153.0	150.8
75°	130.6	125.2	119.7	116.3	114.9	113.5	112.0	110.6
77.5°	92.4	89.2	86.0	84.2	83.8	83.4	83.0	82.5
80°	70.9	70.2	69.5	69.0	68.8	68.5	68.3	68.1
82.5°	55.1	54.6	54.1	53.7	53.5	53.2	53.0	52.8
85°	32.0	31.6	31.1	30.8	30.8	30.8	30.8	30.8
87.5°	16.5	16.6	16.7	16.9	17.2	17.4	17.7	18.0
90°	25.0	26.3	27.7	28.6	29.0	29.5	29.9	30.4
92.5°	41.7	42.5	43.4	43.9	44.2	44.4	44.7	45.0
95°	78.3	79.0	79.7	80.0	80.0	80.0	80.0	80.0
97.5°	123.4	124.2	125.0	125.4	125.4	125.4	125.4	125.4
100°	155.9	156.3	156.8	157.0	157.0	157.0	157.0	157.0
102.5°	190.3	190.9	191.6	192.0	192.1	192.3	192.5	192.7
105°	242.5	243.1	243.8	244.5	245.2	245.8	246.5	247.2
107.5°	298.9	299.5	300.2	300.4	300.4	300.4	300.3	300.3
110°	336.4	336.0	335.5	335.7	336.3	337.0	337.7	338.4





TEST NUMBER: P333066

CATALOG NUMBER: S124RDIW-S795D1050U835-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	376.9	376.8	376.7	376.7	376.9	377.0	377.1	377.3
115°	439.2	439.0	438.8	438.5	438.3	438.1	437.9	437.6
117.5°	499.1	498.3	497.6	497.0	496.5	496.1	495.6	495.2
120°	539.7	538.6	537.5	537.1	537.6	538.0	538.5	538.9
122.5°	581.0	580.2	579.4	578.6	577.8	577.0	576.2	575.4
125°	641.4	640.9	640.5	640.0	639.6	639.1	638.7	638.2
127.5°	699.1	698.7	698.2	697.8	697.4	697.1	696.7	696.4
130°	739.6	739.2	738.7	738.1	737.2	736.3	735.4	734.5
132.5°	777.7	777.3	776.8	776.4	776.1	775.7	775.3	775.0
135°	834.9	834.4	834.0	833.4	832.7	832.0	831.4	830.7
137.5°	890.1	889.5	888.9	888.7	888.8	889.0	889.1	889.2
140°	926.5	926.3	926.0	925.8	925.6	925.4	925.1	924.9
142.5°	960.9	960.8	960.8	960.7	960.7	960.7	960.6	960.6
145°	1012.6	1012.4	1012.1	1011.7	1011.0	1010.3	1009.7	1009.0
147.5°	1059.5	1059.3	1059.1	1058.9	1058.7	1058.5	1058.2	1058.0
150°	1089.0	1089.0	1089.0	1088.9	1088.7	1088.5	1088.2	1088.0
152.5°	1116.8	1117.4	1117.9	1117.9	1117.3	1116.7	1116.1	1115.6
155°	1155.7	1156.6	1157.5	1157.5	1156.6	1155.7	1154.8	1153.9
157.5°	1189.9	1190.5	1191.2	1191.2	1190.4	1189.6	1188.9	1188.1
160°	1210.9	1211.6	1212.3	1212.0	1210.9	1209.8	1208.7	1207.5
162.5°	1229.8	1231.0	1232.3	1232.3	1231.2	1230.1	1228.9	1227.8
165°	1254.8	1256.2	1257.5	1257.7	1256.8	1255.9	1255.0	1254.1
167.5°	1275.9	1277.2	1278.6	1278.6	1277.2	1275.8	1274.4	1273.0
170°	1287.2	1288.6	1289.9	1289.8	1288.3	1286.7	1285.1	1283.5
172.5°	1295.7	1297.2	1298.8	1298.7	1297.2	1295.6	1294.0	1292.4
175°	1304.9	1306.5	1308.1	1308.1	1306.5	1304.9	1303.3	1301.8
177.5°	1310.0	1311.2	1312.5	1312.4	1310.9	1309.5	1308.1	1306.6
180°	1309.9	1309.9	1309.9	1309.9	1309.9	1309.9	1309.9	1309.9

(END OF REPORT)