

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: P333554-830

Luminaire Tested: **S125RDIP-S850D365U830-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333554-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDIP-S850D365U830-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 365 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4257.3 lumens
Efficiency: N/A
Efficacy: 121.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Semi-Direct

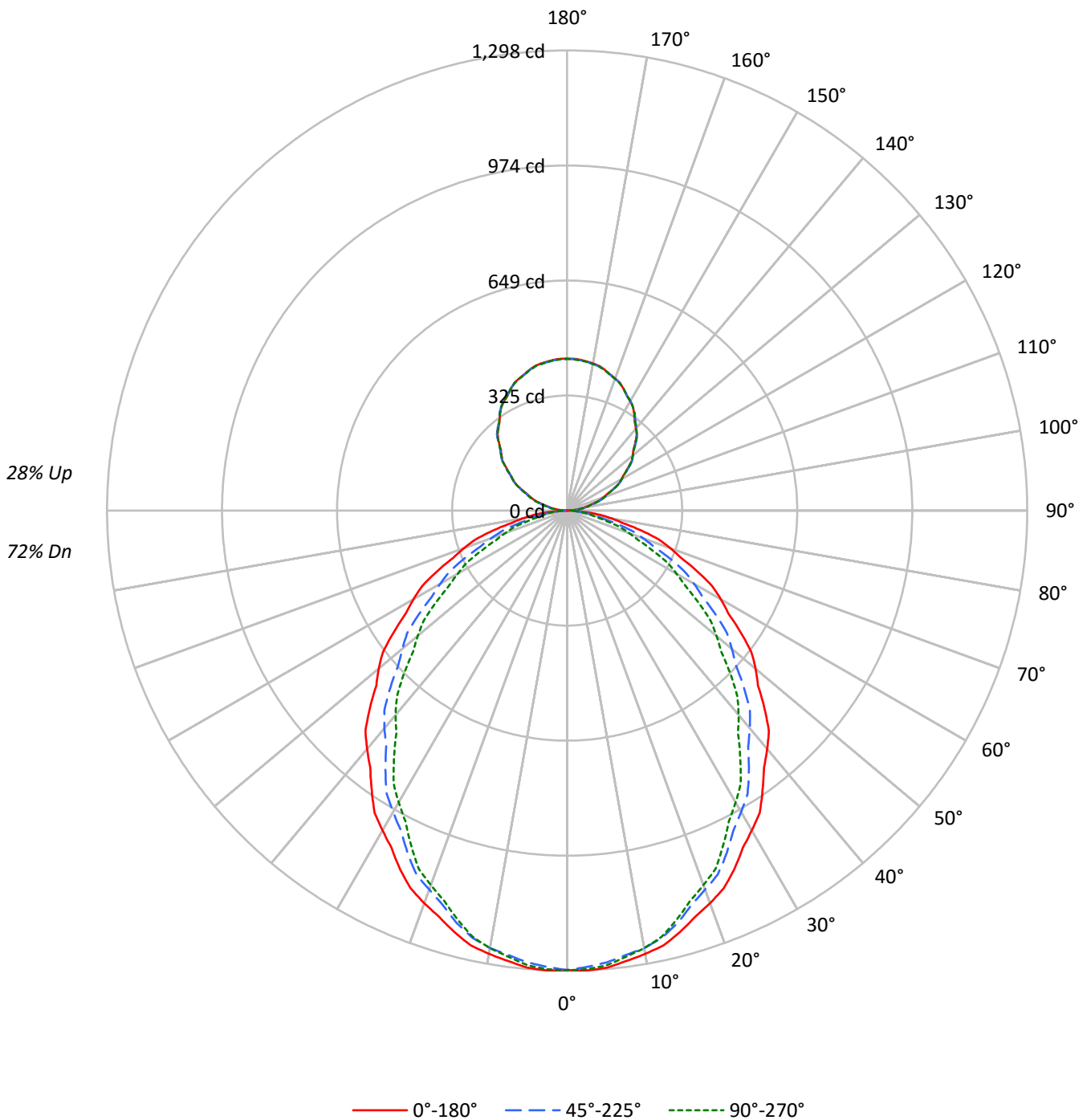
Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	112	112	112	112	106	106	106	106	96	96	96	85	85	85	76	76	76	72
1	103	99	95	91	98	94	90	87	84	82	79	76	74	72	68	67	65	61
2	94	87	80	75	89	82	77	72	74	70	66	67	64	61	60	58	55	52
3	86	76	69	63	81	73	66	61	66	60	56	60	55	52	54	50	47	44
4	79	68	60	54	75	65	57	52	59	53	48	53	48	45	48	44	41	38
5	73	61	52	46	69	58	50	45	53	47	42	48	43	39	43	39	36	33
6	67	55	46	40	63	52	45	39	48	41	37	44	38	34	40	35	32	29
7	62	50	41	36	59	48	40	35	44	37	33	40	34	30	36	32	28	26
8	58	45	37	32	55	43	36	31	40	34	29	36	31	27	33	29	26	23
9	54	42	34	29	51	40	33	28	37	31	26	34	28	25	31	26	23	21
10	51	38	31	26	48	37	30	25	34	28	24	31	26	22	29	24	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8371	8371	8371
5°	8390	8294	8345
10°	8326	8217	8217
15°	8227	8050	7985
20°	8100	7818	7724
25°	7953	7590	7422
30°	7767	7322	7088
35°	7579	7046	6714
40°	7403	6759	6347
45°	7188	6437	5945
50°	6973	6089	5528
55°	6723	5754	5082
60°	6473	5349	4602
65°	6178	4876	4053
70°	5840	4288	3493
75°	5375	3616	2907
80°	4731	2838	2440
85°	3987	2319	2179



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.9	2.9
10°-20°	340.6	8.0
20°-30°	493.9	11.6
30°-40°	562.9	13.2
40°-50°	548.6	12.9
50°-60°	461.8	10.8
60°-70°	323.7	7.6
70°-80°	166.4	3.9
80°-90°	43.0	1.0
90°-100°	28.7	0.7
100°-110°	84.7	2.0
110°-120°	143.4	3.4
120°-130°	188.7	4.4
130°-140°	211.5	5.0
140°-150°	207.3	4.9
150°-160°	174.1	4.1
160°-170°	115.7	2.7
170°-180°	40.5	1.0
0°-30°	956.3	22.5
0°-40°	1519.2	35.7
0°-60°	2529.7	59.4
0°-90°	3062.8	71.9
90°-120°	256.8	6.0
90°-150°	864.2	20.3
90°-180°	1195.0	28.1
0°-180°	4257.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1296	1296	1296	1296	1296	
5°	1294	1290	1279	1289	1287	123
15°	1230	1224	1204	1203	1194	347
25°	1116	1100	1065	1052	1042	513
35°	961	937	894	866	852	602
45°	787	757	705	667	651	607
55°	597	564	511	468	451	534
65°	404	370	319	281	265	400
75°	215	185	145	124	116	228
85°	54	37	31	30	29	60
90°	0	3	5	7	8	4
95°	22	22	26	28	29	23
105°	76	78	80	82	83	81
115°	144	145	146	145	145	142
125°	210	211	212	211	211	188
135°	272	274	275	275	274	210
145°	330	331	332	332	332	206
155°	378	378	378	379	378	174
165°	411	410	410	412	410	116
175°	427	426	426	427	425	41
180°	428	428	428	428	428	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1
2.5°	1298.4	1297.9	1297.3	1296.8	1296.3	1295.1	1293.5	1291.7	1290.0	1288.2	1290.0
5°	1294.1	1293.3	1292.3	1291.5	1290.6	1289.0	1286.6	1284.2	1281.8	1279.4	1281.6
7.5°	1281.4	1280.5	1279.7	1278.8	1278.1	1276.2	1273.4	1270.5	1267.6	1264.7	1266.2
10°	1269.6	1268.9	1268.3	1267.6	1267.0	1265.2	1262.2	1259.0	1256.0	1253.0	1253.6
12.5°	1256.3	1255.5	1254.6	1253.9	1253.0	1250.6	1246.4	1242.4	1238.3	1234.2	1234.6
15°	1230.5	1229.2	1227.9	1226.5	1225.2	1222.3	1217.8	1213.1	1208.6	1204.0	1203.8
17.5°	1201.3	1199.3	1197.3	1195.3	1193.3	1189.4	1183.6	1177.9	1172.1	1166.4	1165.4
20°	1178.6	1176.4	1174.2	1172.1	1169.9	1165.3	1158.4	1151.4	1144.4	1137.5	1136.4
22.5°	1153.5	1151.3	1149.1	1147.0	1144.8	1140.1	1132.7	1125.5	1118.1	1110.9	1108.7
25°	1116.0	1112.7	1109.4	1106.2	1102.9	1097.2	1089.2	1081.1	1073.1	1065.1	1062.2
27.5°	1072.9	1068.9	1065.0	1061.0	1057.1	1050.7	1042.2	1033.5	1024.9	1016.2	1012.3
30°	1041.5	1037.4	1033.3	1029.2	1025.0	1018.3	1009.3	1000.1	991.0	981.8	976.9
32.5°	1011.0	1006.2	1001.4	996.6	991.6	984.6	975.3	966.0	956.7	947.3	941.9
35°	961.3	956.0	950.8	945.6	940.4	932.8	923.1	913.3	903.5	893.7	887.4
37.5°	912.5	906.2	899.8	893.4	887.1	878.9	868.8	858.7	848.6	838.5	830.9
40°	878.1	871.6	865.0	858.5	852.0	843.5	833.0	822.6	812.2	801.7	793.4
42.5°	842.1	835.4	828.7	821.9	815.2	806.5	795.7	784.9	774.1	763.4	755.4
45°	787.0	780.7	774.4	768.1	761.8	752.6	740.6	728.8	716.8	704.8	696.1
47.5°	730.1	723.4	716.7	710.1	703.4	694.1	682.0	670.0	657.9	645.8	636.9
50°	694.0	686.8	679.7	672.5	665.3	655.5	643.1	630.7	618.3	606.0	596.8
52.5°	654.9	647.5	640.2	632.8	625.5	616.0	604.3	592.6	580.8	569.1	559.3
55°	597.1	590.1	583.2	576.3	569.3	559.7	547.5	535.4	523.2	511.0	501.1
57.5°	538.8	531.3	523.9	516.4	509.1	499.5	487.7	475.9	464.2	452.4	442.9
60°	501.1	493.6	486.0	478.3	470.7	461.1	449.3	437.5	425.8	414.1	404.5
62.5°	461.3	454.0	446.8	439.4	432.2	422.6	410.7	398.8	386.8	374.9	366.1
65°	404.3	396.9	389.5	382.1	374.7	365.2	353.7	342.1	330.6	319.1	310.4
67.5°	347.7	340.3	332.9	325.6	318.1	308.9	297.8	286.8	275.8	264.7	256.7
70°	309.3	301.9	294.5	287.1	279.7	270.6	259.8	248.8	238.0	227.1	220.4
72.5°	271.7	264.5	257.3	250.1	242.9	234.1	223.9	213.8	203.6	193.4	187.2
75°	215.4	208.9	202.3	195.8	189.3	181.4	172.3	163.2	154.0	144.9	140.1
77.5°	159.4	154.1	148.9	143.7	138.5	132.2	124.9	117.6	110.3	103.0	99.6
80°	127.2	122.1	116.8	111.6	106.4	100.8	94.6	88.5	82.5	76.3	74.4
82.5°	96.0	91.2	86.5	81.8	77.1	72.7	68.5	64.4	60.1	56.0	55.0
85°	53.8	50.0	46.0	42.1	38.2	35.6	34.6	33.5	32.4	31.3	31.1
87.5°	18.1	17.0	15.8	14.8	13.7	13.1	13.0	12.9	12.9	12.8	12.9
90°	0.4	0.9	1.5	2.1	2.7	3.3	3.8	4.3	4.8	5.4	5.7
92.5°	8.1	8.5	8.9	9.3	9.7	10.3	10.8	11.5	12.2	12.8	13.3
95°	21.7	21.8	22.0	22.1	22.2	22.7	23.5	24.1	24.9	25.6	26.2
97.5°	36.0	36.0	36.1	36.2	36.2	36.8	37.8	38.8	39.8	40.8	41.4
100°	46.7	46.7	46.7	46.7	46.7	47.1	48.1	49.0	50.0	51.0	51.7
102.5°	58.1	58.4	58.7	59.0	59.3	59.7	60.1	60.6	61.2	61.6	62.4
105°	76.0	76.3	76.7	77.1	77.5	77.9	78.3	78.7	79.2	79.6	80.0
107.5°	95.7	96.0	96.4	96.8	97.2	97.6	97.8	98.2	98.5	98.9	99.1
110°	109.2	109.6	110.0	110.4	110.7	111.0	111.2	111.5	111.7	112.0	112.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	123.1	123.3	123.5	123.7	123.9	124.1	124.4	124.7	125.0	125.3	125.4
115°	143.5	143.8	144.2	144.5	144.8	145.0	145.2	145.2	145.4	145.6	145.5
117.5°	164.1	164.2	164.4	164.5	164.7	164.8	164.9	165.0	165.1	165.3	165.3
120°	176.9	177.3	177.7	178.0	178.3	178.6	178.7	178.7	178.8	178.9	178.9
122.5°	190.8	190.9	191.1	191.1	191.2	191.4	191.6	191.8	192.0	192.2	192.2
125°	209.5	210.0	210.5	210.8	211.3	211.6	211.7	211.7	211.8	211.9	211.7
127.5°	229.5	229.8	230.1	230.3	230.5	230.7	230.8	230.9	231.0	231.0	231.0
130°	241.5	241.9	242.2	242.6	243.0	243.3	243.4	243.6	243.7	243.8	243.7
132.5°	253.5	254.1	254.8	255.3	255.9	256.3	256.2	256.2	256.2	256.1	256.0
135°	272.5	273.0	273.4	273.8	274.3	274.6	274.7	274.7	274.8	274.8	274.8
137.5°	290.4	290.8	291.2	291.6	292.1	292.4	292.6	292.7	292.8	293.0	293.1
140°	301.8	302.2	302.6	302.9	303.3	303.6	303.8	304.1	304.3	304.4	304.6
142.5°	313.3	313.6	313.9	314.2	314.5	314.8	315.1	315.4	315.7	315.9	316.0
145°	330.2	330.5	330.7	331.0	331.3	331.6	331.8	332.1	332.2	332.4	332.4
147.5°	345.7	345.9	346.0	346.2	346.4	346.6	346.8	346.9	347.0	347.2	347.4
150°	356.1	356.1	356.0	355.9	355.8	355.9	356.2	356.6	356.8	357.1	357.1
152.5°	364.7	364.8	364.9	365.0	365.0	365.1	365.3	365.4	365.5	365.6	365.8
155°	377.8	377.8	377.8	377.8	377.8	377.8	377.9	378.0	378.1	378.1	378.4
157.5°	389.5	389.4	389.2	389.0	388.9	388.8	388.9	389.0	389.0	389.1	389.4
160°	396.4	396.2	396.0	395.8	395.6	395.5	395.6	395.6	395.7	395.8	396.1
162.5°	402.6	402.4	402.3	402.1	401.9	401.8	401.8	401.9	401.9	401.9	402.3
165°	410.8	410.6	410.5	410.3	410.2	410.1	410.2	410.3	410.4	410.4	410.8
167.5°	417.6	417.4	417.1	416.8	416.5	416.3	416.3	416.3	416.3	416.3	416.8
170°	421.4	421.1	420.8	420.6	420.2	420.1	420.1	420.1	420.1	420.1	420.6
172.5°	424.0	423.8	423.5	423.2	422.9	422.7	422.7	422.7	422.7	422.7	423.2
175°	427.1	426.8	426.5	426.2	425.9	425.7	425.7	425.7	425.7	425.7	426.2
177.5°	428.6	428.4	428.1	427.9	427.6	427.5	427.4	427.4	427.3	427.3	427.6
180°	428.1	428.1	428.1	428.1	428.1	428.1	428.1	428.1	428.1	428.1	428.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1
2.5°	1291.7	1293.5	1295.1	1296.0	1295.8	1295.6	1295.4	1295.2
5°	1283.7	1285.9	1288.1	1289.0	1288.5	1288.1	1287.7	1287.2
7.5°	1267.8	1269.3	1270.8	1271.3	1270.8	1270.4	1269.9	1269.4
10°	1254.2	1254.9	1255.6	1255.6	1254.9	1254.2	1253.6	1253.0
12.5°	1235.1	1235.6	1236.1	1235.9	1234.8	1233.8	1232.8	1231.8
15°	1203.6	1203.3	1203.2	1202.1	1200.1	1198.2	1196.2	1194.2
17.5°	1164.2	1163.2	1162.1	1160.7	1159.1	1157.5	1155.9	1154.3
20°	1135.3	1134.2	1133.1	1131.6	1129.6	1127.7	1125.7	1123.8
22.5°	1106.5	1104.5	1102.3	1100.4	1098.8	1097.2	1095.6	1094.0
25°	1059.4	1056.6	1053.8	1051.1	1048.7	1046.3	1044.0	1041.5
27.5°	1008.3	1004.4	1000.4	997.3	995.0	992.7	990.4	988.1
30°	971.9	966.9	961.8	958.4	956.4	954.4	952.4	950.5
32.5°	936.3	930.8	925.3	921.2	918.8	916.3	913.8	911.3
35°	881.1	874.8	868.5	863.8	860.7	857.7	854.7	851.6
37.5°	823.4	815.8	808.2	803.0	800.0	797.0	794.1	791.2
40°	785.1	776.9	768.6	763.2	760.6	758.0	755.4	752.8
42.5°	747.5	739.6	731.7	725.8	722.0	718.1	714.3	710.5
45°	687.4	678.7	670.0	664.0	660.7	657.5	654.2	650.9
47.5°	627.9	619.0	610.0	603.7	600.1	596.5	592.9	589.3
50°	587.7	578.5	569.4	563.2	560.0	556.7	553.4	550.2
52.5°	549.5	539.6	529.8	523.2	520.0	516.7	513.5	510.2
55°	491.4	481.6	471.8	465.1	461.8	458.3	454.8	451.3
57.5°	433.3	423.8	414.2	407.8	404.7	401.6	398.6	395.5
60°	394.9	385.3	375.8	369.4	366.1	362.9	359.6	356.3
62.5°	357.1	348.3	339.4	333.4	330.1	326.8	323.6	320.3
65°	301.7	293.0	284.3	278.3	275.0	271.8	268.5	265.2
67.5°	248.7	240.8	232.8	227.5	225.0	222.3	219.7	217.2
70°	213.6	206.9	200.1	195.5	192.8	190.2	187.7	185.0
72.5°	181.0	174.7	168.5	164.6	162.8	161.1	159.4	157.6
75°	135.3	130.5	125.7	122.6	121.0	119.5	118.0	116.5
77.5°	96.2	92.9	89.5	87.4	86.2	85.1	84.0	82.8
80°	72.5	70.5	68.5	67.3	66.9	66.4	66.0	65.6
82.5°	54.2	53.3	52.3	51.7	51.5	51.3	51.0	50.7
85°	30.9	30.6	30.4	30.3	30.0	29.8	29.6	29.4
87.5°	13.0	13.0	13.1	13.1	12.9	12.8	12.7	12.5
90°	6.0	6.4	6.8	7.1	7.4	7.5	7.7	8.0
92.5°	13.8	14.2	14.7	15.1	15.3	15.4	15.6	15.7
95°	26.7	27.2	27.7	28.1	28.2	28.4	28.5	28.7
97.5°	41.8	42.3	42.8	43.1	43.2	43.3	43.4	43.5
100°	52.3	53.0	53.6	54.0	54.2	54.4	54.5	54.7
102.5°	63.1	63.8	64.6	65.0	65.2	65.4	65.6	65.8
105°	80.5	81.0	81.4	81.7	81.9	82.2	82.4	82.7
107.5°	99.3	99.5	99.7	99.9	99.8	99.8	99.8	99.8
110°	112.4	112.6	112.8	112.9	112.8	112.7	112.6	112.6



TEST NUMBER: P333554-830

CATALOG NUMBER: S125RDIP-S850D365U830-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	125.5	125.5	125.6	125.6	125.5	125.4	125.3	125.2
115°	145.4	145.3	145.2	145.2	145.2	145.1	145.0	144.9
117.5°	165.4	165.5	165.5	165.4	165.1	164.9	164.6	164.2
120°	178.9	178.9	178.9	178.7	178.4	178.1	177.9	177.6
122.5°	192.1	192.0	192.0	191.8	191.6	191.3	191.1	190.9
125°	211.6	211.4	211.3	211.1	211.1	211.0	210.9	210.8
127.5°	230.9	230.8	230.7	230.6	230.5	230.4	230.2	230.1
130°	243.7	243.6	243.6	243.5	243.3	243.2	243.0	242.9
132.5°	256.0	255.9	255.8	255.7	255.4	255.2	255.1	254.9
135°	274.8	274.8	274.8	274.7	274.4	274.1	273.8	273.5
137.5°	293.2	293.3	293.4	293.2	292.8	292.5	292.1	291.7
140°	304.8	304.9	305.1	305.0	304.6	304.3	303.9	303.5
142.5°	316.1	316.2	316.3	316.1	315.8	315.4	315.1	314.7
145°	332.4	332.4	332.4	332.3	332.2	331.9	331.7	331.5
147.5°	347.6	347.8	348.0	347.8	347.3	346.8	346.3	345.8
150°	357.1	357.1	357.1	357.0	356.9	356.8	356.6	356.5
152.5°	366.0	366.2	366.4	366.3	366.1	365.8	365.5	365.2
155°	378.7	379.0	379.3	379.3	378.9	378.5	378.1	377.8
157.5°	389.6	390.0	390.3	390.2	389.7	389.2	388.7	388.2
160°	396.3	396.6	396.9	396.9	396.5	396.2	395.8	395.4
162.5°	402.6	402.9	403.3	403.3	402.8	402.4	402.0	401.5
165°	411.0	411.3	411.6	411.5	411.0	410.7	410.2	409.7
167.5°	417.3	417.6	418.1	418.1	417.6	417.2	416.7	416.3
170°	420.9	421.4	421.9	421.8	421.3	420.8	420.3	419.7
172.5°	423.7	424.0	424.5	424.5	424.0	423.6	423.1	422.6
175°	426.6	427.1	427.5	427.4	427.0	426.4	425.9	425.4
177.5°	428.0	428.4	428.7	428.7	428.3	427.8	427.4	427.0
180°	428.1	428.1	428.1	428.1	428.1	428.1	428.1	428.1

(END OF REPORT)