

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: P333560

Luminaire Tested: **S125RDIP-S850D590U835-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333560  
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-S850D590U835-4F0-1E-UDD-F1  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 590 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5295.7 lumens  
Efficiency: N/A  
Efficacy: 131.4 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

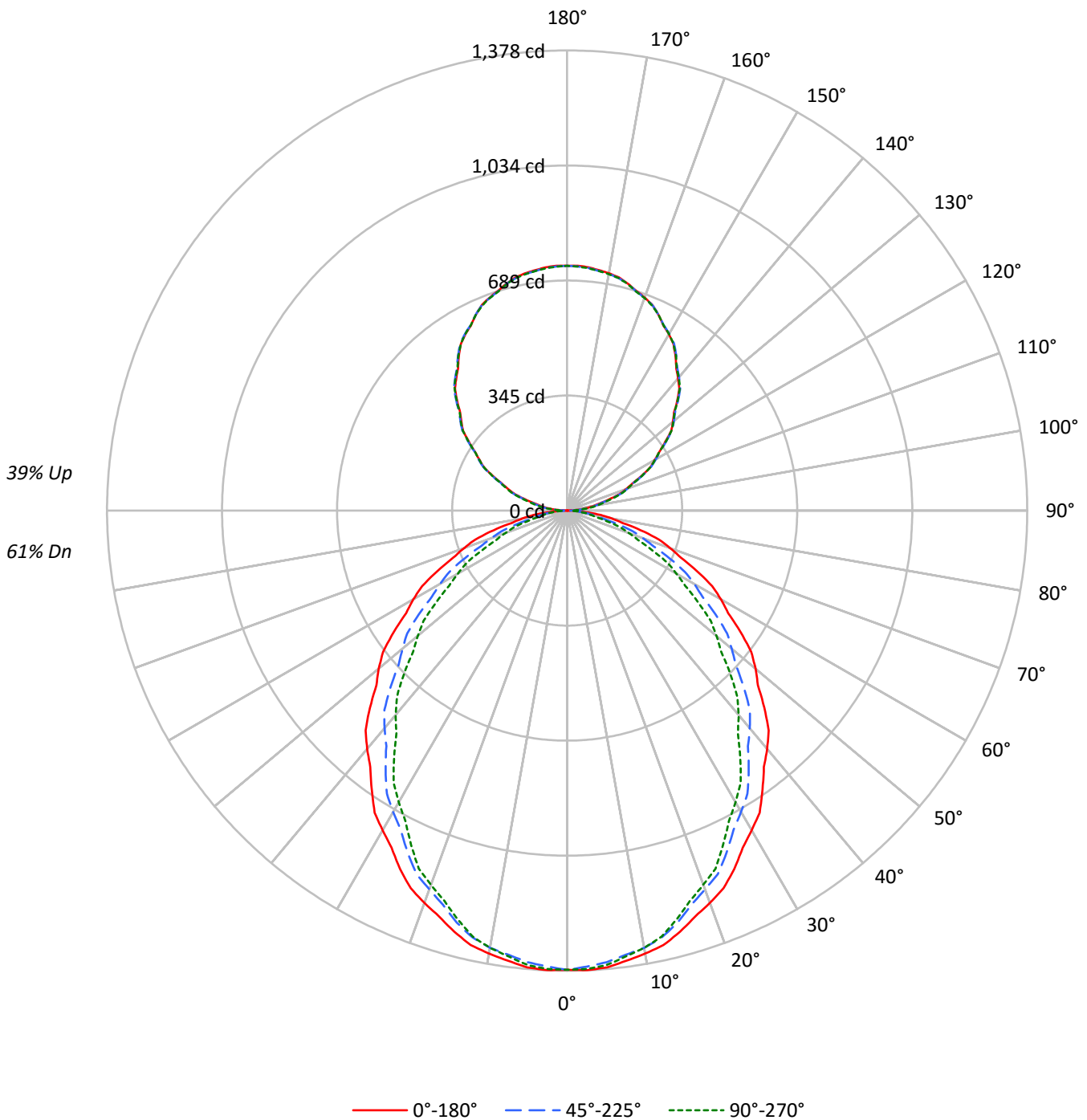
Input Watts (W): 40.3  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	61
1	101	96	92	89	94	90	87	84	79	77	74	69	67	65	59	58	57	52
2	92	84	78	73	86	79	74	69	70	66	62	61	58	55	52	50	48	44
3	84	74	67	61	78	70	63	58	62	57	52	54	50	47	47	44	41	38
4	77	66	58	52	72	62	55	50	55	49	45	48	44	40	42	39	36	33
5	71	59	51	45	66	56	48	43	49	43	39	43	39	35	38	34	31	28
6	65	53	45	39	61	50	43	37	45	39	34	39	35	31	34	31	28	25
7	60	48	40	34	57	45	38	33	41	35	30	36	31	27	32	28	25	22
8	56	44	36	31	53	41	34	29	37	31	27	33	28	25	29	25	22	20
9	52	40	33	27	49	38	31	26	34	28	24	30	26	22	27	23	20	18
10	49	37	30	25	46	35	28	24	31	26	22	28	23	20	25	21	18	16

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

	0°	45°	90°
0°	8881	8881	8881
5°	8901	8800	8854
10°	8834	8718	8718
15°	8729	8541	8471
20°	8594	8294	8194
25°	8437	8052	7874
30°	8240	7768	7520
35°	8041	7476	7123
40°	7854	7171	6734
45°	7626	6830	6308
50°	7398	6459	5865
55°	7133	6104	5391
60°	6868	5674	4883
65°	6554	5174	4300
70°	6197	4549	3707
75°	5702	3835	3084
80°	5021	3013	2589
85°	4231	2460	2312



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	129.3	2.4
10°-20°	361.3	6.8
20°-30°	524.0	9.9
30°-40°	597.2	11.3
40°-50°	582.1	11.0
50°-60°	490.0	9.3
60°-70°	343.5	6.5
70°-80°	176.6	3.3
80°-90°	46.2	0.9
90°-100°	49.1	0.9
100°-110°	145.0	2.7
110°-120°	245.6	4.6
120°-130°	323.2	6.1
130°-140°	362.1	6.8
140°-150°	354.9	6.7
150°-160°	298.1	5.6
160°-170°	198.2	3.7
170°-180°	69.4	1.3
0°-30°	1014.6	19.2
0°-40°	1611.8	30.4
0°-60°	2683.9	50.7
0°-90°	3250.1	61.4
90°-120°	439.7	8.3
90°-150°	1479.9	27.9
90°-180°	2046.0	38.6
0°-180°	5295.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1375	1375	1375	1375	1375	
5°	1373	1368	1357	1367	1366	130
15°	1306	1298	1277	1276	1267	368
25°	1184	1167	1130	1117	1105	545
35°	1020	994	948	919	904	638
45°	835	803	748	708	691	644
55°	634	599	542	497	479	566
65°	429	392	339	298	281	425
75°	228	197	154	132	124	242
85°	57	39	33	32	31	64
90°	1	5	9	12	14	5
95°	37	38	44	48	49	40
105°	130	133	136	140	142	139
115°	246	248	249	249	248	243
125°	359	362	363	362	361	321
135°	467	470	471	470	468	360
145°	565	568	569	569	568	353
155°	647	647	648	650	647	298
165°	703	702	703	705	702	198
175°	731	729	729	732	728	69
180°	733	733	733	733	733	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1
2.5°	1377.5	1377.0	1376.4	1375.9	1375.3	1374.1	1372.3	1370.4	1368.6	1366.7	1368.6
5°	1373.0	1372.1	1371.1	1370.2	1369.3	1367.6	1365.0	1362.5	1359.9	1357.4	1359.7
7.5°	1359.5	1358.6	1357.7	1356.8	1356.0	1354.0	1351.0	1347.9	1344.9	1341.8	1343.4
10°	1347.0	1346.3	1345.6	1344.9	1344.2	1342.3	1339.1	1335.8	1332.6	1329.4	1330.0
12.5°	1332.9	1332.0	1331.1	1330.3	1329.4	1326.8	1322.4	1318.1	1313.8	1309.4	1309.9
15°	1305.5	1304.1	1302.7	1301.3	1299.9	1296.8	1292.0	1287.1	1282.3	1277.4	1277.2
17.5°	1274.5	1272.4	1270.3	1268.2	1266.0	1261.9	1255.8	1249.7	1243.6	1237.5	1236.4
20°	1250.4	1248.1	1245.8	1243.5	1241.2	1236.3	1229.0	1221.6	1214.2	1206.8	1205.7
22.5°	1223.8	1221.5	1219.2	1216.9	1214.6	1209.6	1201.8	1194.1	1186.3	1178.6	1176.3
25°	1184.0	1180.5	1177.0	1173.6	1170.1	1164.1	1155.6	1147.0	1138.5	1130.0	1127.0
27.5°	1138.3	1134.1	1129.9	1125.7	1121.5	1114.8	1105.7	1096.5	1087.4	1078.2	1074.0
30°	1105.0	1100.6	1096.3	1091.9	1087.5	1080.4	1070.8	1061.1	1051.4	1041.7	1036.4
32.5°	1072.6	1067.5	1062.4	1057.3	1052.1	1044.6	1034.8	1024.9	1015.0	1005.1	999.3
35°	1019.9	1014.3	1008.8	1003.2	997.7	989.7	979.4	969.0	958.6	948.2	941.5
37.5°	968.1	961.4	954.7	947.9	941.2	932.5	921.8	911.0	900.3	889.6	881.6
40°	931.6	924.7	917.7	910.8	903.9	894.9	883.8	872.7	861.7	850.6	841.8
42.5°	893.4	886.3	879.2	872.0	864.9	855.7	844.2	832.8	821.3	809.9	801.5
45°	835.0	828.3	821.6	814.9	808.2	798.5	785.8	773.2	760.5	747.8	738.5
47.5°	774.6	767.5	760.4	753.4	746.3	736.4	723.6	710.8	698.0	685.2	675.7
50°	736.3	728.7	721.1	713.5	705.9	695.5	682.3	669.2	656.0	642.9	633.2
52.5°	694.8	687.0	679.2	671.4	663.6	653.5	641.1	628.7	616.2	603.8	593.4
55°	633.5	626.1	618.8	611.4	604.0	593.8	580.9	568.0	555.1	542.1	531.7
57.5°	571.6	563.7	555.8	547.9	540.1	529.9	517.4	504.9	492.5	480.0	469.9
60°	531.7	523.7	515.6	507.5	499.4	489.2	476.7	464.2	451.8	439.3	429.2
62.5°	489.4	481.7	474.0	466.2	458.5	448.4	435.7	423.1	410.4	397.8	388.4
65°	428.9	421.1	413.2	405.4	397.5	387.5	375.3	363.0	350.8	338.6	329.3
67.5°	368.9	361.0	353.2	345.4	337.5	327.7	316.0	304.3	292.6	280.8	272.4
70°	328.2	320.3	312.5	304.6	296.8	287.1	275.6	264.0	252.5	240.9	233.8
72.5°	288.3	280.6	273.0	265.3	257.7	248.4	237.6	226.8	216.0	205.2	198.6
75°	228.5	221.6	214.6	207.7	200.8	192.5	182.8	173.1	163.4	153.7	148.6
77.5°	169.1	163.5	158.0	152.5	146.9	140.3	132.5	124.8	117.0	109.3	105.7
80°	135.0	129.5	123.9	118.4	112.9	106.9	100.4	93.9	87.5	81.0	78.9
82.5°	101.8	96.8	91.8	86.8	81.8	77.1	72.7	68.3	63.8	59.4	58.4
85°	57.1	53.0	48.8	44.7	40.5	37.8	36.7	35.5	34.4	33.2	33.0
87.5°	19.2	18.1	17.0	16.0	14.9	14.3	14.3	14.3	14.3	14.3	14.4
90°	0.6	1.6	2.6	3.6	4.6	5.6	6.5	7.4	8.2	9.1	9.8
92.5°	13.8	14.5	15.2	15.9	16.6	17.5	18.6	19.7	20.8	21.9	22.7
95°	37.1	37.3	37.6	37.8	38.1	38.9	40.1	41.4	42.7	43.9	44.8
97.5°	61.6	61.7	61.8	61.9	62.0	62.9	64.7	66.4	68.2	69.9	70.8
100°	79.9	79.9	79.9	79.9	79.9	80.7	82.3	84.0	85.6	87.3	88.4
102.5°	99.5	100.0	100.5	101.0	101.5	102.2	103.0	103.9	104.7	105.5	106.8
105°	130.1	130.7	131.3	132.0	132.6	133.3	134.1	134.8	135.6	136.3	137.1
107.5°	163.8	164.5	165.1	165.7	166.4	167.0	167.6	168.1	168.7	169.3	169.7
110°	187.1	187.7	188.4	189.0	189.7	190.2	190.5	190.9	191.3	191.7	192.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	210.8	211.2	211.5	211.8	212.2	212.6	213.1	213.5	214.0	214.5	214.7
115°	245.9	246.4	246.9	247.4	247.9	248.3	248.5	248.8	249.0	249.3	249.2
117.5°	281.0	281.2	281.5	281.7	281.9	282.2	282.4	282.6	282.8	283.1	283.2
120°	302.9	303.6	304.2	304.8	305.5	305.8	306.0	306.1	306.2	306.3	306.3
122.5°	326.7	326.9	327.1	327.3	327.6	327.8	328.2	328.5	328.8	329.2	329.1
125°	358.8	359.6	360.3	361.1	361.9	362.3	362.4	362.6	362.7	362.8	362.6
127.5°	393.1	393.5	393.9	394.3	394.8	395.1	395.2	395.4	395.5	395.7	395.6
130°	413.6	414.2	414.9	415.5	416.1	416.6	416.8	417.1	417.3	417.6	417.5
132.5°	434.1	435.2	436.2	437.2	438.3	438.8	438.7	438.7	438.6	438.6	438.5
135°	466.6	467.4	468.2	468.9	469.7	470.1	470.3	470.4	470.5	470.6	470.6
137.5°	497.2	498.0	498.7	499.4	500.2	500.7	501.0	501.2	501.5	501.8	501.9
140°	516.8	517.5	518.1	518.7	519.4	519.9	520.3	520.7	521.0	521.4	521.7
142.5°	536.5	537.0	537.5	538.1	538.6	539.1	539.6	540.1	540.6	541.0	541.2
145°	565.3	565.8	566.4	566.9	567.4	567.8	568.2	568.6	569.0	569.3	569.3
147.5°	592.0	592.3	592.6	592.9	593.2	593.4	593.7	594.1	594.4	594.7	595.0
150°	609.8	609.7	609.6	609.5	609.3	609.5	610.0	610.5	611.0	611.5	611.5
152.5°	624.4	624.6	624.8	625.0	625.1	625.3	625.5	625.7	625.9	626.2	626.5
155°	646.9	646.9	646.9	646.9	646.9	647.0	647.1	647.2	647.4	647.5	648.0
157.5°	667.0	666.7	666.4	666.2	665.9	665.8	665.9	666.1	666.2	666.3	666.8
160°	678.9	678.5	678.1	677.7	677.3	677.2	677.3	677.5	677.6	677.7	678.2
162.5°	689.4	689.1	688.8	688.5	688.2	688.1	688.1	688.2	688.2	688.2	688.8
165°	703.4	703.1	702.9	702.6	702.4	702.3	702.4	702.6	702.7	702.8	703.3
167.5°	715.3	714.8	714.2	713.7	713.2	713.0	713.0	713.0	713.0	713.0	713.7
170°	721.6	721.1	720.6	720.1	719.6	719.4	719.4	719.4	719.4	719.4	720.1
172.5°	726.2	725.7	725.2	724.7	724.2	723.9	723.9	723.9	723.9	723.9	724.7
175°	731.3	730.8	730.3	729.8	729.3	729.1	729.1	729.1	729.1	729.1	729.8
177.5°	734.0	733.6	733.2	732.8	732.3	732.1	732.0	731.9	731.8	731.7	732.3
180°	733.1	733.1	733.1	733.1	733.1	733.1	733.1	733.1	733.1	733.1	733.1



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1
2.5°	1370.4	1372.3	1374.1	1375.0	1374.8	1374.6	1374.4	1374.2
5°	1362.0	1364.3	1366.6	1367.6	1367.1	1366.6	1366.2	1365.7
7.5°	1345.1	1346.7	1348.3	1348.8	1348.3	1347.8	1347.3	1346.8
10°	1330.7	1331.4	1332.1	1332.1	1331.4	1330.7	1330.0	1329.4
12.5°	1310.4	1310.9	1311.4	1311.2	1310.1	1309.0	1308.0	1306.9
15°	1277.0	1276.7	1276.5	1275.4	1273.3	1271.2	1269.1	1267.0
17.5°	1235.2	1234.1	1232.9	1231.5	1229.8	1228.1	1226.4	1224.7
20°	1204.5	1203.3	1202.2	1200.6	1198.5	1196.4	1194.3	1192.3
22.5°	1174.0	1171.8	1169.5	1167.5	1165.8	1164.1	1162.4	1160.7
25°	1124.0	1121.0	1118.0	1115.2	1112.6	1110.1	1107.6	1105.0
27.5°	1069.8	1065.6	1061.4	1058.1	1055.7	1053.2	1050.8	1048.3
30°	1031.1	1025.8	1020.4	1016.8	1014.7	1012.6	1010.5	1008.4
32.5°	993.4	987.5	981.7	977.4	974.8	972.2	969.5	966.9
35°	934.8	928.1	921.4	916.5	913.2	910.0	906.8	903.5
37.5°	873.6	865.5	857.5	851.9	848.8	845.6	842.5	839.4
40°	833.0	824.3	815.5	809.7	807.0	804.2	801.4	798.7
42.5°	793.1	784.7	776.3	770.0	766.0	761.9	757.8	753.8
45°	729.3	720.1	710.8	704.5	701.0	697.6	694.1	690.6
47.5°	666.2	656.7	647.2	640.5	636.7	632.9	629.0	625.2
50°	623.5	613.8	604.1	597.5	594.1	590.6	587.1	583.7
52.5°	583.0	572.5	562.1	555.1	551.7	548.2	544.8	541.3
55°	521.4	511.0	500.6	493.5	489.9	486.2	482.5	478.8
57.5°	459.7	449.6	439.4	432.7	429.4	426.1	422.9	419.6
60°	419.0	408.8	398.7	391.9	388.4	385.0	381.5	378.0
62.5°	378.9	369.5	360.1	353.7	350.2	346.7	343.3	339.8
65°	320.1	310.9	301.6	295.3	291.8	288.4	284.9	281.4
67.5°	263.9	255.5	247.0	241.4	238.7	235.9	233.1	230.4
70°	226.6	219.5	212.3	207.4	204.6	201.8	199.1	196.3
72.5°	192.0	185.4	178.8	174.6	172.7	170.9	169.1	167.2
75°	143.6	138.5	133.4	130.1	128.4	126.8	125.2	123.6
77.5°	102.1	98.6	95.0	92.7	91.5	90.3	89.1	87.9
80°	76.9	74.8	72.7	71.4	71.0	70.5	70.0	69.6
82.5°	57.5	56.5	55.5	54.9	54.6	54.4	54.1	53.8
85°	32.8	32.5	32.3	32.1	31.8	31.6	31.4	31.2
87.5°	14.5	14.7	14.8	14.8	14.7	14.6	14.5	14.4
90°	10.4	11.0	11.7	12.2	12.6	12.9	13.3	13.7
92.5°	23.6	24.4	25.3	25.8	26.1	26.4	26.6	26.9
95°	45.7	46.6	47.5	48.0	48.3	48.6	48.8	49.1
97.5°	71.6	72.5	73.3	73.8	73.9	74.1	74.2	74.4
100°	89.6	90.7	91.8	92.5	92.8	93.1	93.3	93.6
102.5°	108.0	109.3	110.5	111.3	111.7	112.0	112.4	112.7
105°	137.9	138.6	139.4	140.0	140.3	140.7	141.1	141.5
107.5°	170.1	170.5	170.8	171.0	171.0	171.0	170.9	170.9
110°	192.4	192.8	193.2	193.3	193.2	193.1	192.9	192.8





TEST NUMBER: P333560

CATALOG NUMBER: S125RDIP-S850D590U835-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	214.9	215.0	215.2	215.2	215.0	214.7	214.5	214.3
115°	249.0	248.9	248.8	248.7	248.5	248.4	248.3	248.2
117.5°	283.3	283.4	283.5	283.3	282.8	282.3	281.8	281.2
120°	306.3	306.3	306.3	306.1	305.6	305.1	304.6	304.1
122.5°	329.0	328.9	328.8	328.5	328.1	327.7	327.3	326.9
125°	362.3	362.1	361.8	361.6	361.5	361.4	361.2	361.1
127.5°	395.4	395.3	395.2	395.0	394.7	394.5	394.2	394.0
130°	417.3	417.2	417.1	416.9	416.6	416.4	416.1	415.9
132.5°	438.3	438.2	438.1	437.8	437.5	437.1	436.8	436.4
135°	470.6	470.6	470.6	470.4	469.9	469.4	468.9	468.4
137.5°	502.1	502.2	502.4	502.2	501.5	500.9	500.3	499.6
140°	521.9	522.2	522.4	522.2	521.6	521.0	520.3	519.7
142.5°	541.3	541.5	541.6	541.4	540.8	540.1	539.5	538.9
145°	569.3	569.3	569.3	569.1	568.8	568.4	568.0	567.6
147.5°	595.3	595.6	595.9	595.6	594.7	593.9	593.0	592.2
150°	611.5	611.5	611.5	611.4	611.2	610.9	610.7	610.4
152.5°	626.8	627.1	627.4	627.3	626.8	626.4	625.9	625.5
155°	648.5	649.0	649.5	649.5	648.8	648.2	647.5	646.9
157.5°	667.3	667.8	668.3	668.2	667.3	666.5	665.7	664.8
160°	678.7	679.2	679.7	679.7	679.1	678.4	677.8	677.2
162.5°	689.4	690.0	690.7	690.6	689.9	689.1	688.4	687.6
165°	703.8	704.3	704.9	704.7	704.0	703.2	702.4	701.7
167.5°	714.5	715.3	716.0	716.0	715.2	714.4	713.6	712.9
170°	720.9	721.6	722.4	722.3	721.5	720.6	719.7	718.8
172.5°	725.5	726.2	727.0	727.0	726.2	725.4	724.6	723.8
175°	730.6	731.3	732.1	732.0	731.2	730.3	729.4	728.5
177.5°	732.9	733.5	734.1	734.1	733.4	732.7	731.9	731.2
180°	733.1	733.1	733.1	733.1	733.1	733.1	733.1	733.1

(END OF REPORT)