

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: P333566

Luminaire Tested: **S125RDIP-S850D810U835-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333566
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-S850D810U835-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 810 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6054.6 lumens
Efficiency: N/A
Efficacy: 131.9 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: General Diffuse

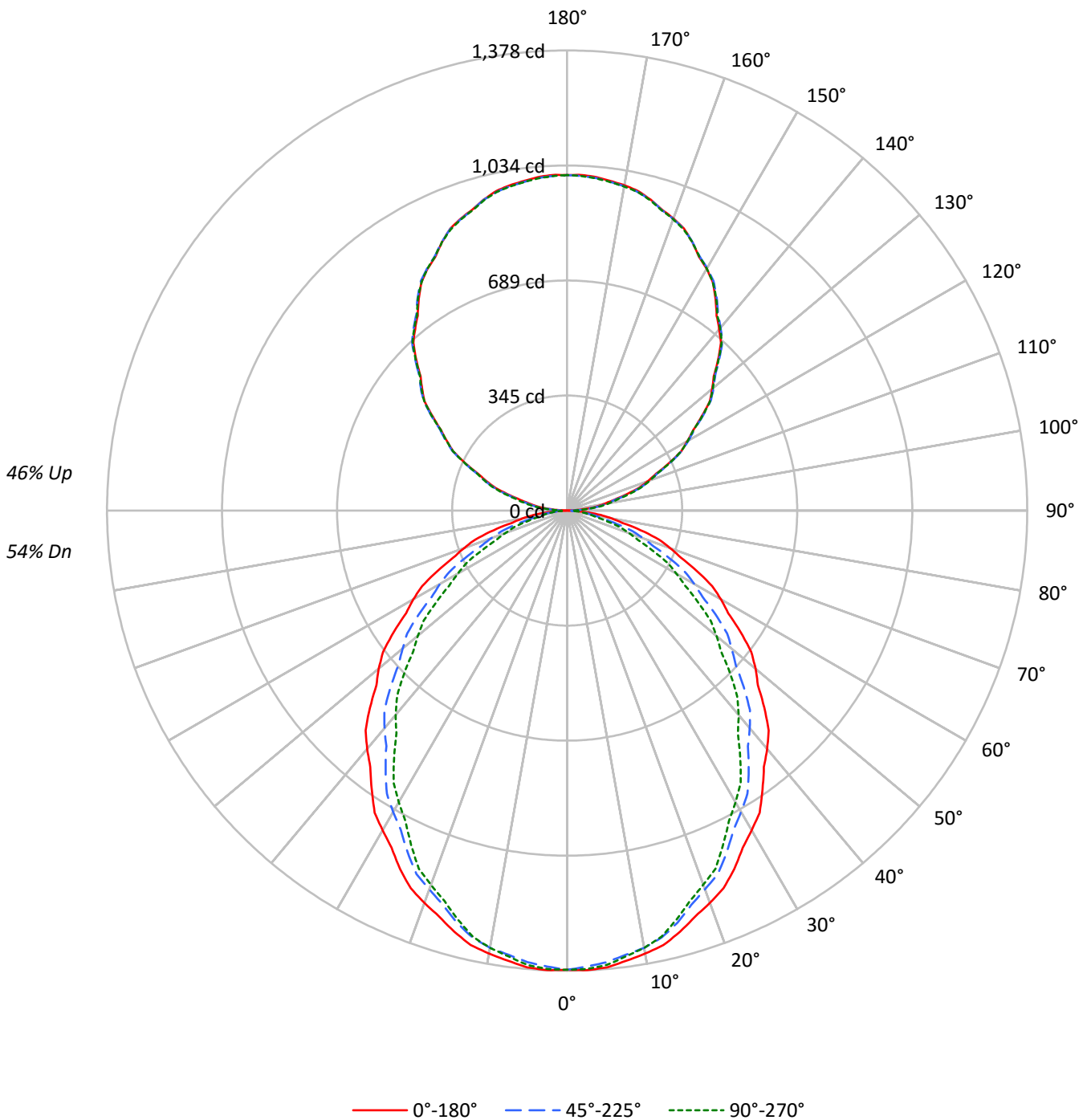
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	108	108	108	100	100	100	100	85	85	85	72	72	72	60	60	60	54
1	99	95	91	87	92	88	85	82	75	73	71	64	62	60	53	52	51	46
2	90	83	77	72	83	77	72	67	66	62	59	56	53	51	47	45	43	39
3	82	73	66	60	76	68	62	57	59	54	50	50	46	43	42	39	37	33
4	76	65	57	51	70	60	53	48	52	47	43	45	40	37	37	34	32	28
5	69	58	50	44	64	54	47	41	47	41	37	40	36	32	34	31	28	25
6	64	52	44	38	59	49	41	36	42	37	32	36	32	28	31	27	25	22
7	59	47	39	33	55	44	37	32	38	33	29	33	29	25	28	25	22	19
8	55	43	35	30	51	40	33	28	35	29	25	30	26	23	26	22	20	17
9	51	39	32	27	48	37	30	25	32	27	23	28	24	20	24	20	18	16
10	48	36	29	24	44	34	27	23	30	24	21	26	22	18	22	19	16	14

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	2.1
10°-20°	361.3	6.0
20°-30°	524.0	8.7
30°-40°	597.2	9.9
40°-50°	582.1	9.6
50°-60°	490.0	8.1
60°-70°	343.5	5.7
70°-80°	176.6	2.9
80°-90°	46.8	0.8
90°-100°	67.3	1.1
100°-110°	198.7	3.3
110°-120°	336.6	5.6
120°-130°	443.0	7.3
130°-140°	496.4	8.2
140°-150°	486.5	8.0
150°-160°	408.6	6.7
160°-170°	271.6	4.5
170°-180°	95.1	1.6
0°-30°	1014.6	16.8
0°-40°	1611.8	26.6
0°-60°	2683.9	44.3
0°-90°	3250.7	53.7
90°-120°	602.7	10.0
90°-150°	2028.6	33.5
90°-180°	2804.0	46.3
0°-180°	6054.6	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	7	12	16	19	5
95°	51	53	60	66	67	54
105°	178	182	187	191	194	190
115°	337	340	342	341	340	333
125°	492	496	497	496	495	440
135°	640	644	645	645	642	493
145°	775	778	780	780	778	484
155°	887	887	888	890	887	408
165°	964	963	963	966	962	272
175°	1002	1000	999	1003	999	95
180°	1005	1005	1005	1005	1005	



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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°	19.3	18.3	17.2	16.2	15.2	14.7	14.8	14.8	14.9	15.0	15.1
90°	0.8	2.2	3.6	5.0	6.3	7.6	8.9	10.1	11.3	12.5	13.4
92.5°	18.9	19.9	20.9	21.8	22.8	24.0	25.5	27.0	28.5	30.0	31.2
95°	50.8	51.2	51.5	51.9	52.2	53.3	55.0	56.7	58.5	60.2	61.4
97.5°	84.5	84.6	84.7	84.9	85.0	86.3	88.7	91.1	93.5	95.9	97.0
100°	109.5	109.5	109.5	109.5	109.5	110.6	112.9	115.1	117.4	119.6	121.2
102.5°	136.4	137.1	137.8	138.5	139.2	140.1	141.2	142.4	143.5	144.7	146.4
105°	178.3	179.2	180.0	180.9	181.8	182.7	183.8	184.8	185.8	186.9	187.9
107.5°	224.6	225.4	226.3	227.2	228.1	228.9	229.7	230.5	231.3	232.1	232.6
110°	256.5	257.4	258.2	259.1	260.0	260.7	261.2	261.7	262.2	262.7	263.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	289.0	289.5	289.9	290.4	290.8	291.4	292.0	292.7	293.4	294.0	294.3
115°	337.0	337.7	338.4	339.1	339.8	340.3	340.7	341.0	341.4	341.7	341.5
117.5°	385.2	385.5	385.8	386.1	386.4	386.8	387.1	387.4	387.7	388.0	388.1
120°	415.2	416.1	417.0	417.8	418.7	419.2	419.4	419.6	419.7	419.9	419.9
122.5°	447.7	448.1	448.4	448.7	449.0	449.4	449.8	450.3	450.7	451.2	451.0
125°	491.8	492.9	493.9	495.0	496.0	496.6	496.8	497.0	497.1	497.3	497.0
127.5°	538.8	539.4	539.9	540.5	541.1	541.5	541.7	541.9	542.2	542.4	542.2
130°	566.9	567.8	568.7	569.5	570.4	571.0	571.3	571.7	572.0	572.4	572.2
132.5°	595.1	596.5	597.9	599.3	600.8	601.4	601.4	601.3	601.2	601.2	601.0
135°	639.6	640.7	641.7	642.8	643.8	644.4	644.6	644.8	644.9	645.1	645.1
137.5°	681.6	682.6	683.6	684.6	685.6	686.3	686.7	687.0	687.4	687.8	688.0
140°	708.5	709.3	710.2	711.1	711.9	712.6	713.1	713.7	714.2	714.7	715.1
142.5°	735.4	736.1	736.8	737.5	738.3	739.0	739.6	740.3	740.9	741.6	741.8
145°	774.9	775.6	776.3	777.0	777.7	778.3	778.8	779.3	779.9	780.4	780.4
147.5°	811.5	811.9	812.3	812.7	813.0	813.4	813.9	814.3	814.7	815.1	815.5
150°	835.9	835.7	835.6	835.4	835.2	835.5	836.2	836.9	837.6	838.3	838.3
152.5°	855.9	856.2	856.4	856.7	856.9	857.2	857.4	857.7	858.0	858.3	858.7
155°	886.7	886.7	886.7	886.7	886.7	886.8	887.0	887.2	887.3	887.5	888.2
157.5°	914.3	913.9	913.5	913.1	912.7	912.6	912.8	913.0	913.1	913.3	914.0
160°	930.5	930.0	929.5	929.0	928.4	928.3	928.4	928.6	928.8	929.0	929.7
162.5°	944.9	944.5	944.1	943.8	943.4	943.2	943.2	943.3	943.3	943.4	944.2
165°	964.2	963.8	963.5	963.1	962.8	962.7	962.8	963.0	963.2	963.4	964.1
167.5°	980.4	979.7	979.0	978.3	977.6	977.3	977.3	977.3	977.3	977.3	978.3
170°	989.2	988.5	987.8	987.1	986.4	986.0	986.0	986.0	986.0	986.0	987.1
172.5°	995.4	994.7	994.0	993.3	992.6	992.3	992.3	992.3	992.3	992.3	993.3
175°	1002.5	1001.8	1001.1	1000.4	999.7	999.3	999.3	999.3	999.3	999.3	1000.4
177.5°	1006.1	1005.5	1005.0	1004.4	1003.8	1003.5	1003.4	1003.2	1003.1	1002.9	1003.8
180°	1004.8	1004.8	1004.8	1004.8	1004.8	1004.8	1004.8	1004.8	1004.8	1004.8	1004.8



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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°	15.3	15.5	15.7	15.7	15.6	15.5	15.5	15.4
90°	14.2	15.1	16.0	16.7	17.2	17.7	18.2	18.8
92.5°	32.3	33.5	34.6	35.4	35.8	36.1	36.5	36.9
95°	62.6	63.9	65.1	65.9	66.2	66.6	66.9	67.2
97.5°	98.2	99.3	100.5	101.1	101.3	101.5	101.8	102.0
100°	122.8	124.3	125.9	126.9	127.2	127.5	127.9	128.2
102.5°	148.1	149.8	151.5	152.6	153.1	153.5	154.0	154.5
105°	189.0	190.0	191.1	191.8	192.4	192.9	193.4	193.9
107.5°	233.1	233.6	234.2	234.4	234.4	234.3	234.3	234.3
110°	263.8	264.3	264.8	265.0	264.8	264.6	264.5	264.3



TEST NUMBER: P333566

CATALOG NUMBER: S125RDIP-S850D810U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	294.5	294.7	295.0	295.0	294.6	294.3	294.0	293.7
115°	341.4	341.2	341.0	340.8	340.7	340.5	340.3	340.2
117.5°	388.3	388.4	388.6	388.3	387.6	386.9	386.2	385.5
120°	419.9	419.9	419.9	419.6	418.9	418.2	417.5	416.8
122.5°	450.9	450.8	450.6	450.3	449.7	449.2	448.6	448.1
125°	496.6	496.3	495.9	495.7	495.5	495.3	495.2	495.0
127.5°	542.0	541.8	541.7	541.4	541.1	540.7	540.4	540.0
130°	572.0	571.9	571.7	571.4	571.1	570.7	570.4	570.0
132.5°	600.8	600.6	600.5	600.1	599.7	599.2	598.7	598.2
135°	645.1	645.1	645.1	644.8	644.1	643.4	642.7	642.0
137.5°	688.2	688.4	688.6	688.3	687.4	686.6	685.7	684.8
140°	715.4	715.7	716.1	715.8	715.0	714.1	713.2	712.4
142.5°	742.0	742.2	742.4	742.1	741.2	740.4	739.5	738.6
145°	780.4	780.4	780.4	780.1	779.6	779.1	778.6	778.0
147.5°	815.9	816.4	816.8	816.4	815.2	814.0	812.9	811.7
150°	838.3	838.3	838.3	838.1	837.7	837.4	837.0	836.7
152.5°	859.1	859.5	859.9	859.8	859.2	858.6	858.0	857.3
155°	888.9	889.6	890.3	890.2	889.3	888.5	887.6	886.7
157.5°	914.7	915.4	916.1	915.9	914.7	913.6	912.4	911.3
160°	930.4	931.0	931.7	931.7	930.8	929.9	929.0	928.2
162.5°	945.0	945.9	946.7	946.6	945.6	944.6	943.6	942.6
165°	964.8	965.5	966.1	966.0	964.9	963.9	962.8	961.8
167.5°	979.4	980.4	981.5	981.4	980.4	979.3	978.2	977.1
170°	988.1	989.2	990.2	990.1	988.9	987.7	986.5	985.3
172.5°	994.4	995.4	996.5	996.5	995.4	994.3	993.2	992.1
175°	1001.4	1002.5	1003.5	1003.4	1002.2	1001.0	999.8	998.6
177.5°	1004.6	1005.4	1006.3	1006.2	1005.2	1004.3	1003.3	1002.3
180°	1004.8	1004.8	1004.8	1004.8	1004.8	1004.8	1004.8	1004.8

(END OF REPORT)