

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: P333553

Luminaire Tested: **S125RDIP-S850D365U835-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333553
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDIP-S850D365U835-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 365 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4713.8 lumens
Efficiency: N/A
Efficacy: 134.7 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

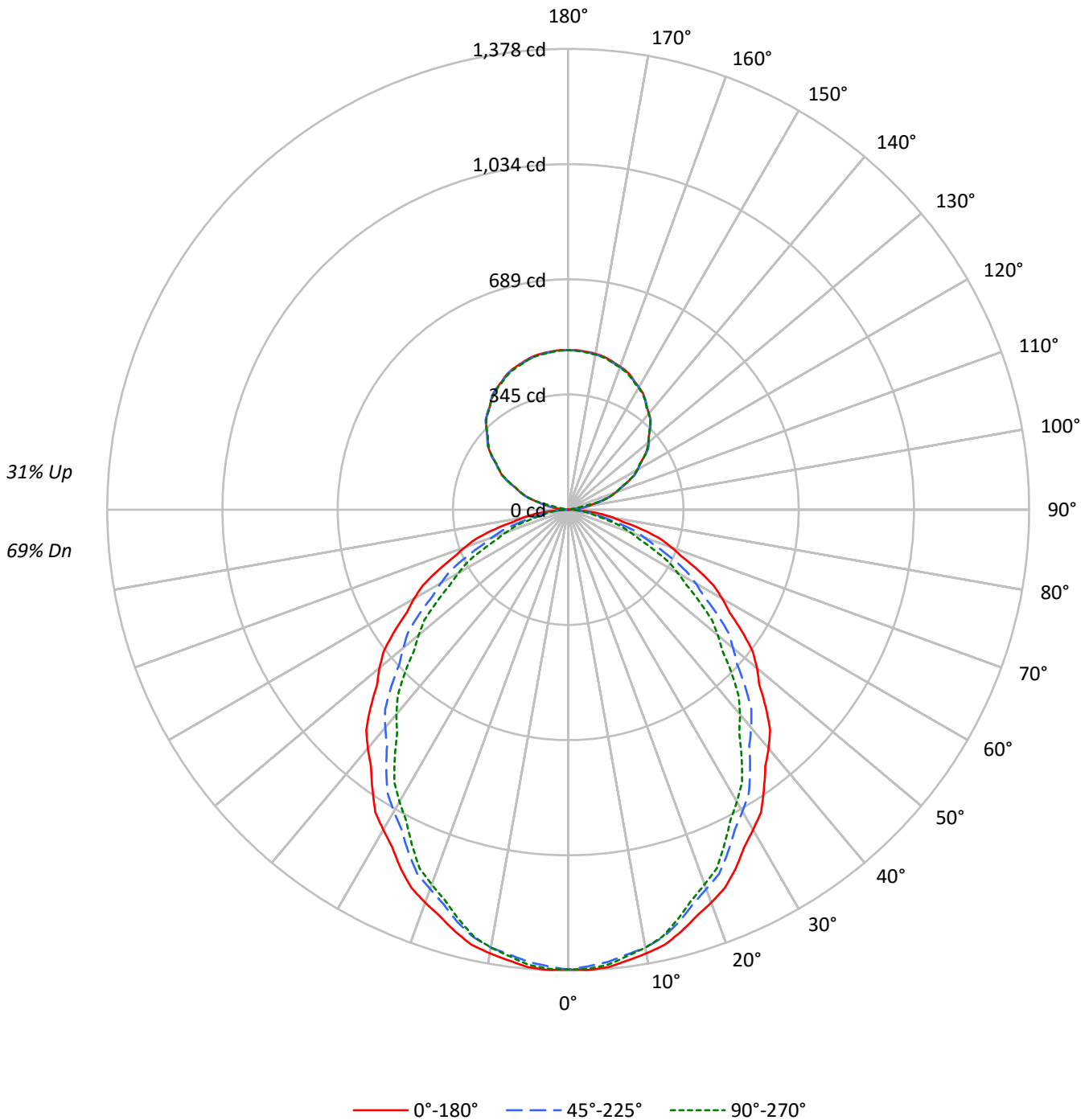
Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333553

CATALOG NUMBER: S125RDIP-S850D365U835-4F0-1E-UDD-F

Luminous Intensity Polar Plot





TEST NUMBER: P333553

CATALOG NUMBER: S125RDIP-S850D365U835-4F0-1E-UDD-F

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	105	105	105	105	94	94	94	83	83	83	74	74	74	69
1	102	98	94	91	97	93	89	86	83	80	78	74	72	70	66	64	63	59
2	93	86	80	75	88	81	76	71	73	69	65	65	62	59	58	56	53	50
3	85	76	68	62	80	72	65	60	65	59	55	58	54	50	52	48	46	42
4	78	67	59	53	74	64	57	51	58	52	47	52	47	43	46	43	40	37
5	72	60	52	46	68	57	50	44	52	46	41	47	42	38	42	38	35	32
6	67	54	46	40	63	52	44	39	47	41	36	42	37	33	38	34	31	28
7	62	49	41	35	58	47	40	34	43	36	32	39	33	30	35	31	27	25
8	57	45	37	32	54	43	36	31	39	33	29	35	30	27	32	28	25	22
9	54	41	33	28	51	39	32	27	36	30	26	33	28	24	30	25	22	20
10	50	38	30	26	47	36	29	25	33	27	23	30	25	22	28	23	20	18

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



TEST NUMBER: P333553

CATALOG NUMBER: S125RDIP-S850D365U835-4F0-1E-UDD-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.3	2.7
10°-20°	361.3	7.7
20°-30°	524.0	11.1
30°-40°	597.2	12.7
40°-50°	582.1	12.3
50°-60°	490.0	10.4
60°-70°	343.5	7.3
70°-80°	176.6	3.7
80°-90°	45.6	1.0
90°-100°	17.3	0.4
100°-110°	106.8	2.3
110°-120°	193.7	4.1
120°-130°	248.6	5.3
130°-140°	267.4	5.7
140°-150°	251.0	5.3
150°-160°	203.0	4.3
160°-170°	131.3	2.8
170°-180°	45.3	1.0
0°-30°	1014.6	21.5
0°-40°	1611.8	34.2
0°-60°	2683.9	56.9
0°-90°	3249.5	68.9
90°-120°	317.8	6.7
90°-150°	1084.7	23.0
90°-180°	1464.0	31.1
0°-180°	4713.8	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°	0	3	6	7	8	3
95°	20	18	6	7	7	26
105°	104	105	105	105	105	110
115°	195	197	197	196	194	193
125°	278	280	280	279	278	248
135°	346	348	348	347	345	267
145°	401	402	402	402	400	251
155°	442	440	440	441	439	203
165°	466	464	464	466	464	132
175°	477	475	475	478	475	45
180°	477	477	477	477	477	



TEST NUMBER: P333553

CATALOG NUMBER: S125RDIP-S850D365U835-4F0-1E-UDD-F

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	18.0	16.8	15.7	14.5	13.9	13.8	13.7	13.7	13.6	13.7
90°	0.4	1.0	1.6	2.2	2.9	3.5	4.0	4.6	5.1	5.7	6.0
92.5°	5.4	5.0	4.6	4.1	3.7	3.7	4.2	4.7	5.2	5.7	6.0
95°	20.1	19.9	19.7	19.4	19.2	17.6	14.6	11.6	8.6	5.7	6.0
97.5°	42.1	42.5	42.9	43.3	43.8	41.0	35.1	29.2	23.3	17.4	15.2
100°	59.0	59.3	59.5	59.7	60.0	60.2	60.6	60.9	61.2	61.5	49.8
102.5°	76.3	76.6	76.9	77.2	77.5	77.7	77.9	78.1	78.3	78.5	76.3
105°	103.9	104.2	104.6	104.9	105.2	105.3	105.3	105.3	105.3	105.3	105.3
107.5°	132.6	132.6	132.6	132.6	132.6	132.7	132.9	133.0	133.2	133.3	133.3
110°	151.3	151.3	151.3	151.3	151.3	151.4	151.5	151.7	151.8	152.0	151.8



TEST NUMBER: P333553

CATALOG NUMBER: S125RDIP-S850D365U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	168.8	169.0	169.2	169.4	169.6	169.7	169.8	169.9	170.0	170.1	169.8
115°	195.1	195.5	195.9	196.3	196.7	196.9	197.0	197.1	197.2	197.2	196.9
117.5°	222.3	222.3	222.3	222.3	222.3	222.4	222.7	223.0	223.3	223.6	223.2
120°	239.3	239.2	239.2	239.1	239.0	239.1	239.3	239.5	239.8	240.0	239.9
122.5°	254.3	254.6	254.9	255.2	255.5	255.7	255.8	255.9	256.0	256.1	256.0
125°	277.5	278.0	278.6	279.1	279.7	280.0	280.0	280.0	280.0	280.0	279.6
127.5°	299.6	300.0	300.4	300.8	301.2	301.4	301.3	301.3	301.2	301.2	301.0
130°	313.2	313.6	314.0	314.4	314.8	315.0	315.1	315.1	315.2	315.3	315.1
132.5°	326.8	327.2	327.7	328.1	328.6	328.7	328.6	328.4	328.2	328.0	328.0
135°	346.1	346.5	347.0	347.5	347.9	348.1	347.9	347.8	347.6	347.5	347.3
137.5°	363.8	364.2	364.6	365.0	365.4	365.6	365.4	365.3	365.1	365.0	365.0
140°	375.4	375.6	375.7	375.9	376.0	376.1	376.0	375.9	375.8	375.8	375.9
142.5°	385.9	386.0	386.1	386.1	386.2	386.3	386.5	386.6	386.7	386.8	386.8
145°	401.2	401.4	401.5	401.7	401.8	401.9	401.9	401.9	401.9	401.9	402.0
147.5°	414.6	414.6	414.6	414.5	414.5	414.5	414.6	414.7	414.8	414.9	415.0
150°	423.1	423.0	422.8	422.6	422.5	422.5	422.6	422.8	423.0	423.1	423.3
152.5°	431.3	431.0	430.6	430.3	429.9	429.8	430.0	430.2	430.3	430.5	430.6
155°	441.9	441.4	440.9	440.4	440.0	439.8	440.0	440.1	440.3	440.4	440.7
157.5°	450.0	449.7	449.4	449.1	448.9	448.7	448.7	448.8	448.8	448.8	449.0
160°	455.6	455.2	454.7	454.2	453.8	453.6	453.6	453.7	453.8	453.9	454.2
162.5°	460.2	459.7	459.2	458.7	458.3	458.1	458.2	458.2	458.3	458.4	458.8
165°	466.2	465.8	465.3	464.8	464.4	464.2	464.2	464.3	464.4	464.5	464.9
167.5°	470.8	470.3	469.8	469.3	468.8	468.6	468.7	468.8	468.9	468.9	469.5
170°	473.3	472.8	472.2	471.7	471.1	470.9	471.0	471.0	471.1	471.2	471.8
172.5°	475.0	474.5	473.9	473.4	472.8	472.6	472.7	472.9	473.0	473.2	473.7
175°	476.8	476.4	475.9	475.4	475.0	474.8	474.8	474.9	475.0	475.1	475.7
177.5°	477.7	477.3	476.9	476.6	476.2	476.0	476.1	476.2	476.2	476.3	476.7
180°	476.8	476.8	476.8	476.8	476.8	476.8	476.8	476.8	476.8	476.8	476.8



TEST NUMBER: P333553

CATALOG NUMBER: S125RDIP-S850D365U835-4F0-1E-UDD-F

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°	13.8	13.8	13.9	13.9	13.7	13.6	13.5	13.3
90°	6.4	6.8	7.2	7.5	7.8	8.0	8.2	8.5
92.5°	6.4	6.8	7.2	7.5	7.6	7.7	7.8	7.9
95°	6.4	6.8	7.2	7.4	7.4	7.4	7.4	7.4
97.5°	13.0	10.7	8.5	7.4	7.4	7.4	7.4	7.4
100°	38.1	26.4	14.7	8.7	8.4	8.1	7.7	7.4
102.5°	74.0	71.8	69.6	65.8	60.5	55.2	49.8	44.5
105°	105.3	105.3	105.3	105.3	105.2	105.1	105.1	105.0
107.5°	133.4	133.4	133.4	133.3	133.1	132.8	132.6	132.3
110°	151.5	151.3	151.1	151.0	151.1	151.1	151.2	151.3



TEST NUMBER: P333553

CATALOG NUMBER: S125RDIP-S850D365U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	169.5	169.2	168.9	168.7	168.6	168.5	168.4	168.3
115°	196.6	196.3	196.0	195.6	195.1	194.7	194.2	193.7
117.5°	222.8	222.4	222.0	221.7	221.5	221.3	221.1	220.9
120°	239.7	239.5	239.4	239.1	238.7	238.3	237.9	237.5
122.5°	255.8	255.7	255.5	255.2	254.7	254.3	253.8	253.4
125°	279.3	279.0	278.7	278.4	278.2	278.0	277.7	277.5
127.5°	300.8	300.6	300.5	300.1	299.5	298.9	298.4	297.8
130°	314.8	314.6	314.4	314.0	313.7	313.3	312.9	312.5
132.5°	327.9	327.9	327.8	327.6	327.2	326.8	326.4	326.1
135°	347.2	347.0	346.8	346.5	346.1	345.6	345.1	344.6
137.5°	365.1	365.1	365.1	364.9	364.5	364.1	363.7	363.3
140°	376.1	376.2	376.4	376.2	375.8	375.3	374.8	374.3
142.5°	386.8	386.9	386.9	386.7	386.2	385.7	385.3	384.8
145°	402.1	402.1	402.2	402.0	401.6	401.1	400.6	400.1
147.5°	415.1	415.2	415.3	415.1	414.5	413.9	413.4	412.8
150°	423.4	423.6	423.7	423.5	422.9	422.3	421.6	421.0
152.5°	430.8	430.9	431.1	430.9	430.3	429.8	429.2	428.6
155°	440.9	441.1	441.4	441.2	440.6	439.9	439.3	438.7
157.5°	449.3	449.5	449.8	449.6	449.0	448.3	447.7	447.1
160°	454.5	454.8	455.1	455.0	454.3	453.7	453.1	452.5
162.5°	459.3	459.7	460.2	460.0	459.3	458.6	458.0	457.3
165°	465.4	465.9	466.4	466.3	465.7	465.0	464.4	463.8
167.5°	470.1	470.6	471.2	471.1	470.4	469.7	469.0	468.3
170°	472.4	473.1	473.7	473.7	473.0	472.3	471.5	470.8
172.5°	474.3	474.9	475.4	475.4	474.7	473.9	473.2	472.5
175°	476.3	477.0	477.6	477.6	476.8	476.1	475.4	474.7
177.5°	477.2	477.6	478.0	478.0	477.5	477.0	476.5	476.0
180°	476.8	476.8	476.8	476.8	476.8	476.8	476.8	476.8

(END OF REPORT)