

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

Luminaire Tested: **S125RDIP-S850D365U835-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333554
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-S850D365U835-4F0-1E-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: 4516.8 lumens
Efficiency: N/A
Efficacy: 129.1 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

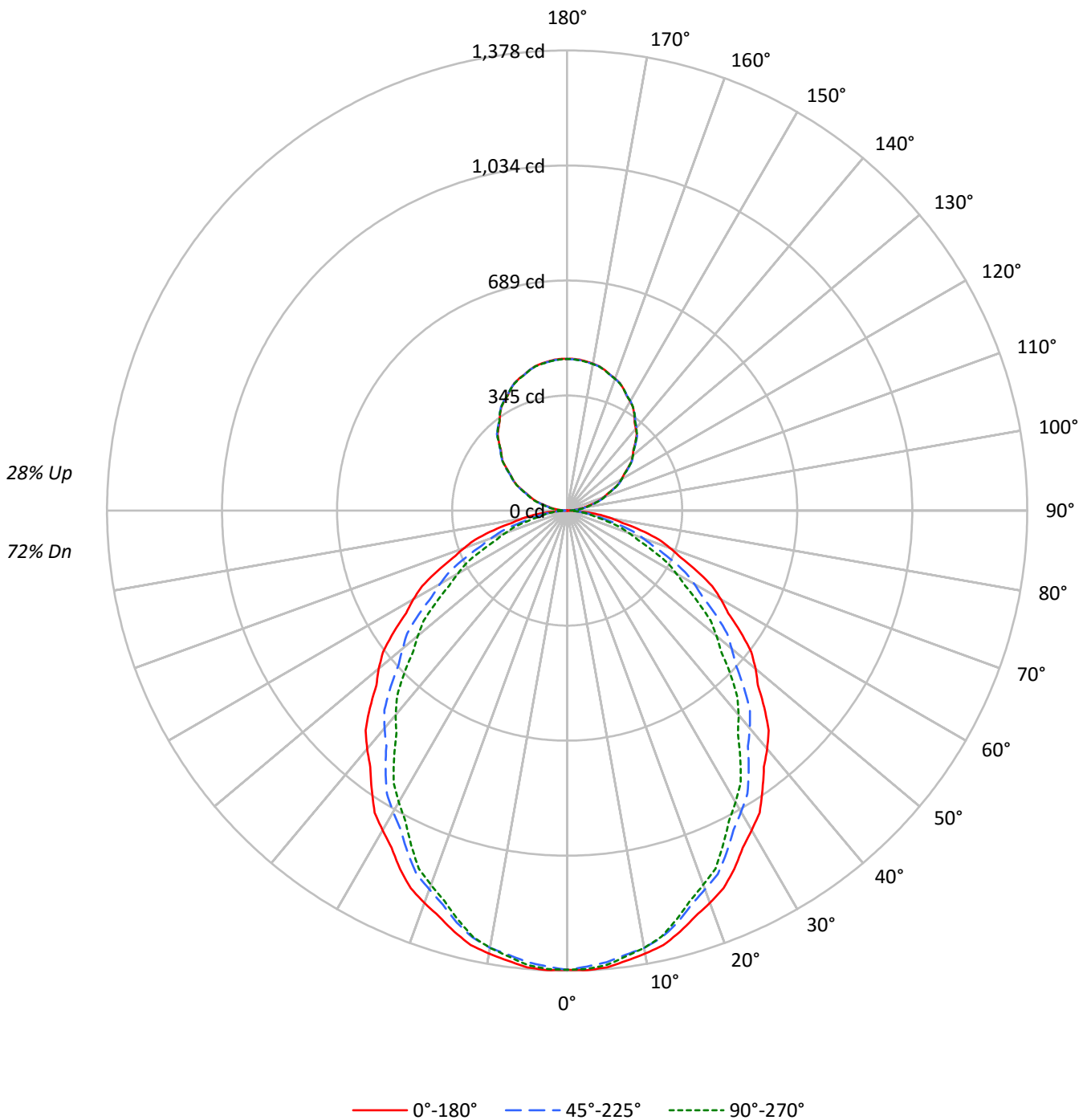
Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20										
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	112	112	112	112	106	106	106	106	96	96	96	85	85	85	76	76	76	76	76	76	76	76	76	72														
1	103	99	95	91	98	94	90	87	84	82	79	76	74	72	68	67	65	65	65	65	65	65	65	61														
2	94	87	80	75	89	82	77	72	74	70	66	67	64	61	60	58	55	55	55	55	55	55	55	52														
3	86	76	69	63	81	73	66	61	66	60	56	60	55	52	54	50	47	47	47	47	47	47	47	44														
4	79	68	60	54	75	65	57	52	59	53	48	53	48	45	48	44	41	41	41	41	41	41	41	38														
5	73	61	52	46	69	58	50	45	53	47	42	48	43	39	43	39	36	36	36	36	36	36	36	33														
6	67	55	46	40	63	52	45	39	48	41	37	44	38	34	40	35	32	32	32	32	32	32	32	29														
7	62	50	41	36	59	48	40	35	44	37	33	40	34	30	36	32	28	28	28	28	28	28	28	26														
8	58	45	37	32	55	43	36	31	40	34	29	36	31	27	33	29	26	26	26	26	26	26	26	23														
9	54	42	34	29	51	40	33	28	37	31	26	34	28	25	31	26	23	23	23	23	23	23	23	21														
10	51	38	31	26	48	37	30	25	34	28	24	31	26	22	29	24	21	21	21	21	21	21	21	19														

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	2.9
10°-20°	361.3	8.0
20°-30°	524.0	11.6
30°-40°	597.2	13.2
40°-50°	582.1	12.9
50°-60°	490.0	10.8
60°-70°	343.5	7.6
70°-80°	176.6	3.9
80°-90°	45.6	1.0
90°-100°	30.4	0.7
100°-110°	89.8	2.0
110°-120°	152.1	3.4
120°-130°	200.2	4.4
130°-140°	224.4	5.0
140°-150°	219.9	4.9
150°-160°	184.7	4.1
160°-170°	122.8	2.7
170°-180°	43.0	1.0
0°-30°	1014.6	22.5
0°-40°	1611.8	35.7
0°-60°	2683.9	59.4
0°-90°	3249.5	71.9
90°-120°	272.4	6.0
90°-150°	916.9	20.3
90°-180°	1267.0	28.1
0°-180°	4516.8	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	4
95°	23	24	27	30	30	25
105°	81	82	84	87	88	86
115°	152	154	154	154	154	151
125°	222	224	225	224	224	199
135°	289	291	292	292	290	223
145°	350	352	353	353	352	219
155°	401	401	401	402	401	185
165°	436	435	435	437	435	123
175°	453	452	452	454	451	43
180°	454	454	454	454	454	



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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	18.0	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°	8.6	9.0	9.4	9.9	10.3	10.9	11.5	12.2	12.9	13.6	14.1
95°	23.0	23.1	23.3	23.4	23.6	24.1	24.9	25.6	26.4	27.2	27.8
97.5°	38.2	38.2	38.3	38.4	38.4	39.0	40.1	41.2	42.2	43.3	43.9
100°	49.5	49.5	49.5	49.5	49.5	50.0	51.0	52.0	53.1	54.1	54.8
102.5°	61.6	62.0	62.3	62.6	62.9	63.3	63.8	64.3	64.9	65.4	66.2
105°	80.6	81.0	81.4	81.8	82.2	82.6	83.1	83.5	84.0	84.5	84.9
107.5°	101.5	101.9	102.3	102.7	103.1	103.5	103.8	104.2	104.5	104.9	105.1
110°	115.9	116.3	116.7	117.1	117.5	117.8	118.0	118.3	118.5	118.8	119.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	130.6	130.8	131.0	131.2	131.4	131.7	132.0	132.3	132.6	132.9	133.0
115°	152.3	152.6	153.0	153.3	153.6	153.8	154.0	154.1	154.3	154.5	154.4
117.5°	174.1	174.2	174.4	174.5	174.7	174.8	175.0	175.1	175.2	175.4	175.4
120°	187.7	188.1	188.5	188.9	189.2	189.5	189.6	189.6	189.7	189.8	189.8
122.5°	202.4	202.5	202.7	202.8	202.9	203.1	203.3	203.5	203.7	203.9	203.9
125°	222.3	222.8	223.3	223.7	224.2	224.5	224.6	224.6	224.7	224.8	224.6
127.5°	243.5	243.8	244.1	244.3	244.6	244.8	244.9	245.0	245.1	245.1	245.1
130°	256.2	256.6	257.0	257.4	257.8	258.1	258.2	258.4	258.6	258.7	258.6
132.5°	269.0	269.6	270.3	270.9	271.5	271.9	271.8	271.8	271.8	271.7	271.6
135°	289.1	289.6	290.1	290.5	291.0	291.3	291.4	291.4	291.5	291.6	291.6
137.5°	308.1	308.5	309.0	309.4	309.9	310.2	310.4	310.5	310.7	310.9	311.0
140°	320.2	320.6	321.0	321.4	321.8	322.1	322.3	322.6	322.8	323.0	323.2
142.5°	332.4	332.7	333.0	333.4	333.7	334.0	334.3	334.6	334.9	335.2	335.3
145°	350.3	350.6	350.9	351.2	351.5	351.8	352.0	352.3	352.5	352.7	352.7
147.5°	366.8	367.0	367.1	367.3	367.5	367.7	367.9	368.1	368.2	368.4	368.6
150°	377.8	377.8	377.7	377.6	377.5	377.6	377.9	378.3	378.6	378.9	378.9
152.5°	386.9	387.0	387.1	387.2	387.3	387.4	387.6	387.7	387.8	387.9	388.1
155°	400.8	400.8	400.8	400.8	400.8	400.8	400.9	401.0	401.1	401.2	401.5
157.5°	413.2	413.1	412.9	412.7	412.6	412.5	412.6	412.7	412.7	412.8	413.1
160°	420.6	420.4	420.1	419.9	419.7	419.6	419.7	419.7	419.8	419.9	420.2
162.5°	427.1	426.9	426.8	426.6	426.4	426.3	426.3	426.4	426.4	426.4	426.8
165°	435.8	435.6	435.5	435.3	435.2	435.1	435.2	435.3	435.4	435.4	435.8
167.5°	443.1	442.8	442.5	442.2	441.9	441.7	441.7	441.7	441.7	441.7	442.2
170°	447.1	446.8	446.5	446.2	445.8	445.7	445.7	445.7	445.7	445.7	446.2
172.5°	449.9	449.6	449.3	449.0	448.7	448.5	448.5	448.5	448.5	448.5	449.0
175°	453.1	452.8	452.5	452.2	451.9	451.7	451.7	451.7	451.7	451.7	452.2
177.5°	454.7	454.5	454.2	454.0	453.7	453.6	453.5	453.5	453.4	453.3	453.7
180°	454.2	454.2	454.2	454.2	454.2	454.2	454.2	454.2	454.2	454.2	454.2



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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°	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°	14.6	15.1	15.6	16.0	16.2	16.3	16.5	16.7
95°	28.3	28.9	29.4	29.8	29.9	30.1	30.2	30.4
97.5°	44.4	44.9	45.4	45.7	45.8	45.9	46.0	46.1
100°	55.5	56.2	56.9	57.3	57.5	57.7	57.8	58.0
102.5°	66.9	67.7	68.5	69.0	69.2	69.4	69.6	69.8
105°	85.4	85.9	86.4	86.7	86.9	87.2	87.4	87.7
107.5°	105.4	105.6	105.8	106.0	105.9	105.9	105.9	105.9
110°	119.2	119.5	119.7	119.8	119.7	119.6	119.5	119.5



TEST NUMBER: P333554

CATALOG NUMBER: S125RDIP-S850D365U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	133.1	133.2	133.3	133.3	133.2	133.0	132.9	132.8
115°	154.3	154.2	154.1	154.1	154.0	153.9	153.8	153.7
117.5°	175.5	175.6	175.6	175.5	175.2	174.9	174.6	174.2
120°	189.8	189.8	189.8	189.6	189.3	189.0	188.7	188.4
122.5°	203.8	203.7	203.7	203.5	203.3	203.0	202.8	202.5
125°	224.5	224.3	224.2	224.0	224.0	223.9	223.8	223.7
127.5°	245.0	244.9	244.8	244.7	244.6	244.4	244.2	244.1
130°	258.6	258.5	258.4	258.3	258.1	258.0	257.8	257.7
132.5°	271.6	271.5	271.4	271.3	271.0	270.8	270.6	270.4
135°	291.6	291.6	291.6	291.4	291.1	290.8	290.5	290.2
137.5°	311.1	311.2	311.3	311.1	310.7	310.3	309.9	309.5
140°	323.4	323.5	323.7	323.6	323.2	322.8	322.4	322.0
142.5°	335.4	335.5	335.6	335.4	335.0	334.6	334.3	333.9
145°	352.7	352.7	352.7	352.6	352.4	352.1	351.9	351.7
147.5°	368.8	369.0	369.2	369.0	368.5	367.9	367.4	366.9
150°	378.9	378.9	378.9	378.8	378.7	378.5	378.3	378.2
152.5°	388.3	388.5	388.7	388.6	388.4	388.1	387.8	387.5
155°	401.8	402.1	402.4	402.4	402.0	401.6	401.2	400.8
157.5°	413.4	413.8	414.1	414.0	413.5	412.9	412.4	411.9
160°	420.5	420.8	421.1	421.1	420.7	420.3	419.9	419.5
162.5°	427.1	427.5	427.9	427.9	427.4	426.9	426.5	426.0
165°	436.1	436.4	436.7	436.6	436.1	435.7	435.2	434.7
167.5°	442.7	443.1	443.6	443.6	443.1	442.6	442.1	441.7
170°	446.6	447.1	447.6	447.5	447.0	446.4	445.9	445.3
172.5°	449.5	449.9	450.4	450.4	449.9	449.4	448.9	448.4
175°	452.6	453.1	453.6	453.5	453.0	452.4	451.9	451.3
177.5°	454.1	454.5	454.8	454.8	454.4	453.9	453.5	453.0
180°	454.2	454.2	454.2	454.2	454.2	454.2	454.2	454.2

(END OF REPORT)