

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: P333682

Luminaire Tested: **S125RDIW-S850D470U835-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333682
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: S125RDIW-S850D470U835-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 470 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5123.8 lumens
Efficiency: N/A
Efficacy: 135.9 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: Semi-Direct

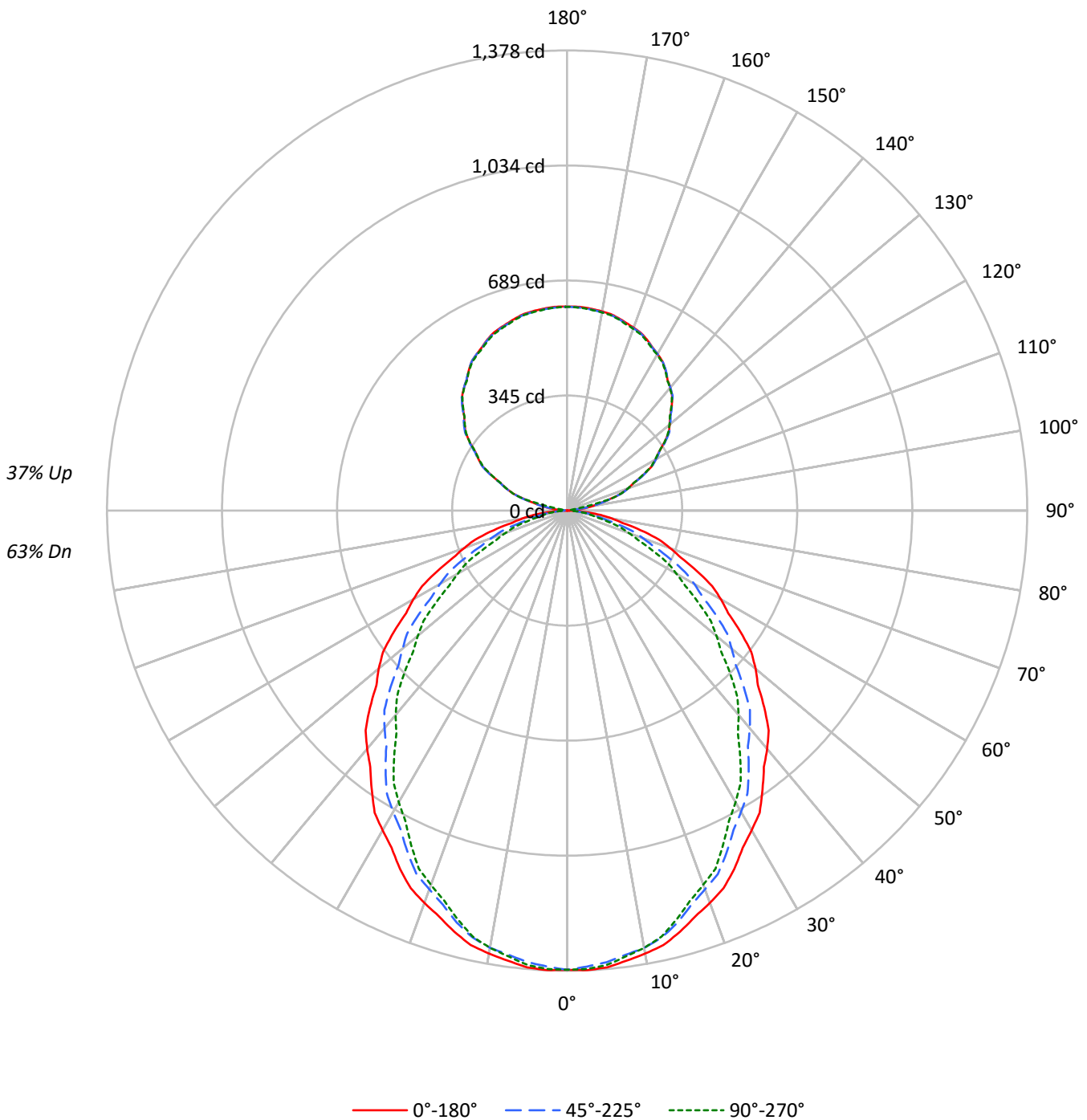
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	110	110	110	104	104	104	104	91	91	91	79	79	79	68	68	68	63
1	101	97	93	89	95	91	88	85	80	78	75	70	68	67	61	60	58	54
2	92	85	79	74	86	80	74	70	71	66	63	62	59	56	54	52	50	46
3	84	75	67	62	79	71	64	59	62	57	53	55	51	48	48	45	43	39
4	77	66	58	52	72	63	56	50	56	50	46	49	45	41	43	40	37	34
5	71	59	51	45	67	56	49	43	50	44	39	44	40	36	39	35	32	29
6	66	53	45	39	61	51	43	38	45	39	35	40	35	32	35	32	29	26
7	61	48	40	35	57	46	39	33	41	35	31	37	32	28	32	28	25	23
8	57	44	36	31	53	42	35	30	38	32	27	34	29	25	30	26	23	21
9	53	40	33	28	50	38	31	27	35	29	25	31	26	23	28	24	21	19
10	49	37	30	25	46	35	29	24	32	26	22	29	24	21	26	22	19	17

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	2.5
10°-20°	361.3	7.1
20°-30°	524.0	10.2
30°-40°	597.2	11.7
40°-50°	582.1	11.4
50°-60°	490.0	9.6
60°-70°	343.5	6.7
70°-80°	176.6	3.4
80°-90°	45.9	0.9
90°-100°	22.2	0.4
100°-110°	136.7	2.7
110°-120°	247.9	4.8
120°-130°	318.1	6.2
130°-140°	342.2	6.7
140°-150°	321.2	6.3
150°-160°	259.8	5.1
160°-170°	168.0	3.3
170°-180°	58.0	1.1
0°-30°	1014.6	19.8
0°-40°	1611.8	31.5
0°-60°	2683.9	52.4
0°-90°	3249.8	63.4
90°-120°	406.7	7.9
90°-150°	1388.2	27.1
90°-180°	1874.0	36.6
0°-180°	5123.8	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	4	7	9	11	4
95°	26	24	7	9	10	33
105°	133	135	135	135	134	141
115°	250	252	252	251	248	247
125°	355	358	358	356	355	317
135°	443	445	445	444	441	341
145°	514	514	514	515	512	321
155°	566	563	564	565	561	260
165°	597	594	594	597	594	168
175°	610	608	608	611	608	58
180°	610	610	610	610	610	



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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	16.9	15.8	14.7	14.1	14.0	14.0	14.0	13.9	14.0
90°	0.5	1.3	2.1	2.9	3.7	4.4	5.1	5.8	6.5	7.2	7.7
92.5°	7.0	6.4	5.8	5.3	4.7	4.7	5.4	6.0	6.6	7.2	7.7
95°	25.8	25.5	25.2	24.9	24.6	22.5	18.7	14.9	11.1	7.2	7.7
97.5°	53.8	54.4	54.9	55.5	56.0	52.5	44.9	37.4	29.8	22.3	19.4
100°	75.5	75.9	76.2	76.5	76.8	77.1	77.5	77.9	78.3	78.7	63.7
102.5°	97.6	98.0	98.4	98.8	99.2	99.5	99.7	99.9	100.2	100.4	97.6
105°	133.0	133.4	133.8	134.2	134.6	134.8	134.8	134.8	134.8	134.8	134.8
107.5°	169.7	169.7	169.7	169.7	169.7	169.8	170.0	170.2	170.4	170.6	170.7
110°	193.6	193.6	193.6	193.6	193.6	193.7	193.9	194.1	194.3	194.5	194.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	216.1	216.3	216.5	216.8	217.0	217.2	217.3	217.5	217.6	217.7	217.3
115°	249.7	250.2	250.7	251.2	251.7	252.0	252.1	252.2	252.3	252.4	252.0
117.5°	284.6	284.5	284.5	284.5	284.5	284.7	285.0	285.4	285.8	286.2	285.7
120°	306.3	306.2	306.1	306.0	305.9	306.0	306.3	306.6	306.9	307.2	307.0
122.5°	325.5	325.8	326.2	326.6	327.0	327.2	327.4	327.5	327.7	327.8	327.6
125°	355.1	355.8	356.5	357.2	357.9	358.3	358.3	358.3	358.3	358.3	357.9
127.5°	383.4	384.0	384.5	385.0	385.5	385.7	385.6	385.6	385.5	385.4	385.2
130°	400.8	401.3	401.8	402.3	402.8	403.1	403.2	403.3	403.4	403.5	403.2
132.5°	418.2	418.8	419.4	419.9	420.5	420.7	420.5	420.3	420.0	419.8	419.8
135°	442.9	443.5	444.1	444.7	445.3	445.5	445.3	445.1	444.9	444.7	444.5
137.5°	465.6	466.1	466.6	467.2	467.7	467.9	467.7	467.5	467.3	467.1	467.2
140°	480.4	480.6	480.8	481.0	481.2	481.3	481.2	481.1	481.0	480.9	481.1
142.5°	493.8	494.0	494.1	494.2	494.3	494.4	494.6	494.7	494.9	495.0	495.0
145°	513.5	513.7	513.9	514.1	514.3	514.4	514.4	514.4	514.4	514.4	514.5
147.5°	530.7	530.6	530.6	530.5	530.5	530.5	530.7	530.8	530.9	531.0	531.1
150°	541.5	541.3	541.1	540.9	540.7	540.7	540.9	541.1	541.3	541.5	541.7
152.5°	552.0	551.6	551.1	550.7	550.2	550.1	550.3	550.5	550.7	550.9	551.1
155°	565.5	564.9	564.3	563.7	563.1	562.9	563.1	563.3	563.5	563.7	564.0
157.5°	575.9	575.5	575.2	574.8	574.4	574.3	574.3	574.3	574.3	574.4	574.7
160°	583.1	582.5	581.9	581.3	580.7	580.5	580.6	580.7	580.8	580.9	581.3
162.5°	588.9	588.3	587.7	587.1	586.5	586.3	586.4	586.5	586.6	586.7	587.2
165°	596.7	596.1	595.5	594.9	594.3	594.0	594.1	594.2	594.3	594.4	595.0
167.5°	602.5	601.9	601.3	600.6	600.0	599.7	599.8	599.9	600.0	600.1	600.9
170°	605.8	605.1	604.3	603.6	602.9	602.6	602.7	602.8	602.9	603.0	603.8
172.5°	607.9	607.2	606.5	605.8	605.1	604.9	605.0	605.2	605.4	605.6	606.3
175°	610.3	609.7	609.1	608.5	607.9	607.6	607.7	607.8	607.9	608.0	608.8
177.5°	611.4	610.9	610.4	609.9	609.4	609.2	609.3	609.4	609.5	609.6	610.1
180°	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3



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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°	14.1	14.2	14.3	14.3	14.2	14.1	13.9	13.8
90°	8.2	8.7	9.2	9.7	10.0	10.3	10.6	10.9
92.5°	8.2	8.7	9.2	9.6	9.7	9.9	10.0	10.1
95°	8.2	8.7	9.2	9.5	9.5	9.5	9.5	9.5
97.5°	16.6	13.8	10.9	9.5	9.5	9.5	9.5	9.5
100°	48.8	33.8	18.8	11.1	10.7	10.3	9.9	9.5
102.5°	94.8	91.9	89.1	84.3	77.4	70.6	63.7	56.9
105°	134.8	134.8	134.8	134.8	134.7	134.6	134.5	134.4
107.5°	170.7	170.7	170.7	170.6	170.3	170.0	169.7	169.4
110°	193.9	193.6	193.3	193.2	193.3	193.4	193.5	193.6



TEST NUMBER: P333682

CATALOG NUMBER: S125RDIW-S850D470U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	216.9	216.5	216.2	215.9	215.8	215.6	215.5	215.3
115°	251.6	251.2	250.8	250.3	249.7	249.1	248.5	247.9
117.5°	285.1	284.6	284.1	283.7	283.4	283.2	282.9	282.7
120°	306.8	306.6	306.4	306.0	305.5	305.0	304.5	304.0
122.5°	327.4	327.2	327.0	326.6	326.0	325.4	324.9	324.3
125°	357.5	357.1	356.7	356.3	356.0	355.7	355.4	355.1
127.5°	385.0	384.8	384.6	384.1	383.3	382.6	381.8	381.1
130°	402.9	402.6	402.3	401.9	401.4	400.9	400.4	399.9
132.5°	419.7	419.6	419.6	419.3	418.8	418.3	417.8	417.3
135°	444.3	444.1	443.9	443.5	442.9	442.3	441.7	441.1
137.5°	467.2	467.3	467.3	467.1	466.5	466.0	465.5	465.0
140°	481.3	481.5	481.7	481.5	480.9	480.3	479.7	479.1
142.5°	495.1	495.1	495.2	494.9	494.3	493.7	493.1	492.5
145°	514.6	514.7	514.8	514.5	513.9	513.3	512.7	512.1
147.5°	531.3	531.4	531.5	531.2	530.5	529.8	529.0	528.3
150°	541.9	542.1	542.3	542.0	541.2	540.4	539.6	538.8
152.5°	551.3	551.5	551.7	551.5	550.7	550.0	549.3	548.6
155°	564.3	564.6	564.9	564.6	563.8	563.0	562.2	561.4
157.5°	575.0	575.3	575.6	575.4	574.6	573.8	573.0	572.2
160°	581.7	582.1	582.5	582.3	581.5	580.7	579.9	579.1
162.5°	587.8	588.4	588.9	588.8	587.9	587.0	586.1	585.2
165°	595.7	596.3	596.9	596.8	596.0	595.1	594.3	593.5
167.5°	601.6	602.3	603.0	603.0	602.0	601.1	600.2	599.3
170°	604.6	605.5	606.3	606.2	605.3	604.4	603.5	602.6
172.5°	607.0	607.7	608.5	608.4	607.5	606.6	605.7	604.8
175°	609.6	610.4	611.2	611.2	610.3	609.4	608.5	607.6
177.5°	610.7	611.2	611.8	611.8	611.1	610.5	609.8	609.2
180°	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3

(END OF REPORT)