

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: P333683

Luminaire Tested: **S125RDIW-S850D470U835-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333683
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: S125RDIW-S850D470U835-4F0-1E-UDD-F1
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, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4875.0 lumens
Efficiency: N/A
Efficacy: 129.3 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

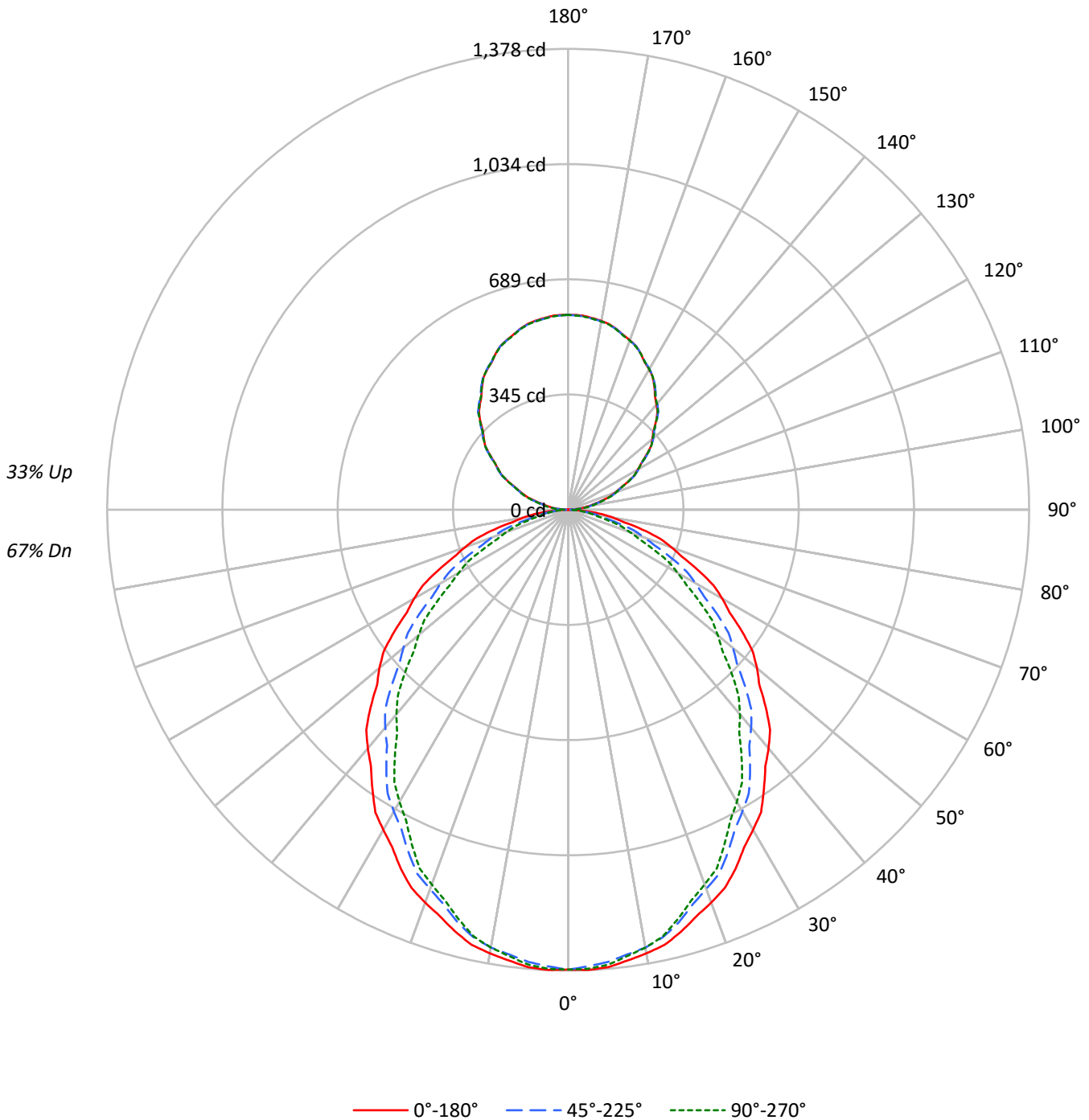
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	111	111	111	105	105	105	105	93	93	93	82	82	82	71	71	71	67
1	102	98	94	90	96	92	89	86	82	79	77	72	70	69	64	62	61	57
2	93	85	79	74	87	81	75	71	72	68	64	64	61	58	56	54	52	48
3	85	75	68	62	80	71	65	59	64	59	54	57	53	49	50	47	44	41
4	78	67	59	53	73	63	56	51	57	51	47	51	46	42	45	41	38	35
5	72	60	52	46	67	57	49	44	51	45	40	46	41	37	41	37	34	31
6	66	54	46	40	62	51	44	38	46	40	35	41	36	33	37	33	30	27
7	61	49	41	35	58	47	39	34	42	36	31	38	33	29	34	30	27	24
8	57	45	37	31	54	42	35	30	38	32	28	35	30	26	31	27	24	22
9	53	41	33	28	50	39	32	27	35	29	25	32	27	23	29	25	22	20
10	50	38	30	25	47	36	29	24	33	27	23	30	25	21	27	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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.3	2.7
10°-20°	361.3	7.4
20°-30°	524.0	10.7
30°-40°	597.2	12.2
40°-50°	582.1	11.9
50°-60°	490.0	10.1
60°-70°	343.5	7.0
70°-80°	176.6	3.6
80°-90°	45.9	0.9
90°-100°	39.0	0.8
100°-110°	115.2	2.4
110°-120°	195.1	4.0
120°-130°	256.8	5.3
130°-140°	287.7	5.9
140°-150°	282.0	5.8
150°-160°	236.9	4.9
160°-170°	157.4	3.2
170°-180°	55.1	1.1
0°-30°	1014.6	20.8
0°-40°	1611.8	33.1
0°-60°	2683.9	55.1
0°-90°	3249.8	66.7
90°-120°	349.3	7.2
90°-150°	1175.8	24.1
90°-180°	1625.0	33.3
0°-180°	4875.0	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	10	11	4
95°	30	31	35	38	39	31
105°	103	106	108	111	112	110
115°	195	197	198	198	197	193
125°	285	288	288	287	287	255
135°	371	373	374	374	372	286
145°	449	451	452	452	451	281
155°	514	514	514	516	514	237
165°	559	558	558	560	558	158
175°	581	579	579	582	579	55
180°	582	582	582	582	582	



TEST NUMBER: P333683

CATALOG NUMBER: S125RDIW-S850D470U835-4F0-1E-UDD-F1

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	7.3	7.8
92.5°	11.0	11.5	12.1	12.7	13.2	13.9	14.8	15.7	16.5	17.4	18.1
95°	29.5	29.7	29.9	30.1	30.3	30.9	31.9	32.9	33.9	34.9	35.6
97.5°	48.9	49.0	49.1	49.2	49.3	50.0	51.4	52.8	54.2	55.6	56.2
100°	63.5	63.5	63.5	63.5	63.5	64.1	65.4	66.7	68.0	69.3	70.3
102.5°	79.0	79.4	79.9	80.3	80.7	81.2	81.9	82.5	83.2	83.8	84.8
105°	103.3	103.8	104.3	104.8	105.4	105.9	106.5	107.1	107.7	108.3	108.9
107.5°	130.2	130.7	131.2	131.7	132.2	132.7	133.1	133.6	134.1	134.5	134.8
110°	148.7	149.2	149.7	150.2	150.7	151.1	151.4	151.7	152.0	152.3	152.6



TEST NUMBER: P333683

CATALOG NUMBER: S125RDIW-S850D470U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	167.5	167.8	168.0	168.3	168.6	168.9	169.3	169.7	170.0	170.4	170.6
115°	195.3	195.7	196.2	196.6	197.0	197.3	197.5	197.7	197.9	198.1	198.0
117.5°	223.3	223.4	223.6	223.8	224.0	224.2	224.4	224.5	224.7	224.9	225.0
120°	240.7	241.2	241.7	242.2	242.7	243.0	243.1	243.2	243.3	243.4	243.4
122.5°	259.5	259.7	259.9	260.1	260.2	260.5	260.7	261.0	261.3	261.5	261.4
125°	285.1	285.7	286.3	286.9	287.5	287.9	288.0	288.1	288.2	288.3	288.1
127.5°	312.3	312.6	313.0	313.3	313.7	313.9	314.0	314.1	314.2	314.4	314.3
130°	328.6	329.1	329.6	330.1	330.6	331.0	331.2	331.4	331.6	331.8	331.7
132.5°	344.9	345.7	346.6	347.4	348.2	348.6	348.6	348.5	348.5	348.4	348.3
135°	370.7	371.4	372.0	372.6	373.2	373.5	373.6	373.7	373.8	373.9	373.9
137.5°	395.0	395.6	396.2	396.8	397.4	397.8	398.0	398.2	398.4	398.7	398.8
140°	410.6	411.1	411.6	412.1	412.6	413.1	413.4	413.7	414.0	414.3	414.5
142.5°	426.2	426.6	427.1	427.5	427.9	428.3	428.7	429.1	429.5	429.9	430.0
145°	449.2	449.6	450.0	450.4	450.8	451.1	451.4	451.7	452.0	452.3	452.3
147.5°	470.4	470.6	470.8	471.0	471.3	471.5	471.7	472.0	472.2	472.5	472.7
150°	484.5	484.4	484.3	484.2	484.1	484.3	484.7	485.1	485.5	485.9	485.9
152.5°	496.1	496.3	496.4	496.5	496.7	496.8	497.0	497.2	497.3	497.5	497.7
155°	514.0	514.0	514.0	514.0	514.0	514.0	514.1	514.2	514.3	514.4	514.8
157.5°	529.9	529.7	529.5	529.3	529.0	529.0	529.1	529.2	529.3	529.4	529.8
160°	539.4	539.1	538.7	538.4	538.1	538.0	538.1	538.2	538.3	538.4	538.9
162.5°	547.7	547.5	547.3	547.0	546.8	546.7	546.7	546.7	546.8	546.8	547.3
165°	558.8	558.6	558.4	558.2	558.0	558.0	558.1	558.2	558.3	558.4	558.8
167.5°	568.3	567.9	567.5	567.1	566.7	566.5	566.5	566.5	566.5	566.5	567.1
170°	573.3	572.9	572.5	572.1	571.7	571.5	571.5	571.5	571.5	571.5	572.1
172.5°	577.0	576.6	576.2	575.8	575.4	575.2	575.2	575.2	575.2	575.2	575.8
175°	581.1	580.6	580.2	579.8	579.4	579.2	579.2	579.2	579.2	579.2	579.8
177.5°	583.1	582.8	582.5	582.2	581.8	581.6	581.6	581.5	581.4	581.3	581.8
180°	582.4	582.4	582.4	582.4	582.4	582.4	582.4	582.4	582.4	582.4	582.4



TEST NUMBER: P333683

CATALOG NUMBER: S125RDIW-S850D470U835-4F0-1E-UDD-F1

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°	8.3	8.8	9.3	9.7	10.0	10.3	10.6	10.9
92.5°	18.7	19.4	20.1	20.5	20.7	20.9	21.2	21.4
95°	36.3	37.0	37.7	38.2	38.4	38.6	38.8	39.0
97.5°	56.9	57.6	58.2	58.6	58.7	58.9	59.0	59.1
100°	71.2	72.1	73.0	73.5	73.7	73.9	74.1	74.3
102.5°	85.8	86.8	87.8	88.4	88.7	89.0	89.3	89.6
105°	109.5	110.1	110.7	111.2	111.5	111.8	112.1	112.4
107.5°	135.1	135.4	135.7	135.9	135.9	135.8	135.8	135.8
110°	152.9	153.2	153.5	153.6	153.5	153.4	153.3	153.2



TEST NUMBER: P333683

CATALOG NUMBER: S125RDIW-S850D470U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	170.7	170.8	171.0	171.0	170.8	170.6	170.4	170.2
115°	197.9	197.8	197.7	197.6	197.5	197.4	197.3	197.2
117.5°	225.1	225.1	225.2	225.1	224.7	224.3	223.8	223.4
120°	243.4	243.4	243.4	243.2	242.8	242.4	242.0	241.6
122.5°	261.4	261.3	261.2	261.0	260.7	260.4	260.0	259.7
125°	287.9	287.7	287.5	287.3	287.2	287.1	287.0	286.9
127.5°	314.2	314.1	314.0	313.8	313.6	313.4	313.2	313.0
130°	331.6	331.5	331.4	331.2	331.0	330.8	330.6	330.4
132.5°	348.2	348.1	348.0	347.9	347.6	347.3	347.0	346.7
135°	373.9	373.9	373.9	373.7	373.3	372.9	372.5	372.1
137.5°	398.9	399.0	399.2	399.0	398.5	398.0	397.4	396.9
140°	414.7	414.9	415.1	414.9	414.4	413.9	413.4	412.9
142.5°	430.1	430.2	430.3	430.1	429.6	429.1	428.6	428.1
145°	452.3	452.3	452.3	452.2	451.9	451.6	451.3	451.0
147.5°	472.9	473.2	473.4	473.2	472.5	471.8	471.1	470.5
150°	485.9	485.9	485.9	485.8	485.6	485.4	485.2	485.0
152.5°	498.0	498.2	498.4	498.4	498.0	497.7	497.3	496.9
155°	515.2	515.6	516.0	516.0	515.5	515.0	514.5	514.0
157.5°	530.2	530.6	531.0	530.9	530.2	529.5	528.9	528.2
160°	539.3	539.7	540.1	540.0	539.5	539.0	538.5	538.0
162.5°	547.8	548.2	548.7	548.7	548.1	547.5	546.9	546.3
165°	559.2	559.6	560.0	559.9	559.3	558.7	558.1	557.5
167.5°	567.7	568.3	568.9	568.9	568.2	567.6	567.0	566.4
170°	572.7	573.3	574.0	573.9	573.2	572.5	571.8	571.1
172.5°	576.4	577.0	577.6	577.6	576.9	576.3	575.7	575.1
175°	580.4	581.1	581.7	581.6	580.9	580.2	579.5	578.8
177.5°	582.3	582.8	583.3	583.2	582.7	582.1	581.5	581.0
180°	582.4	582.4	582.4	582.4	582.4	582.4	582.4	582.4

(END OF REPORT)