

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: P333386-830

Luminaire Tested: **S125DIW-S610D1050U830-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333386-830  
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: S125DIW-S610D1050U830-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 1050 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6307.1 lumens  
Efficiency: N/A  
Efficacy: 139.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

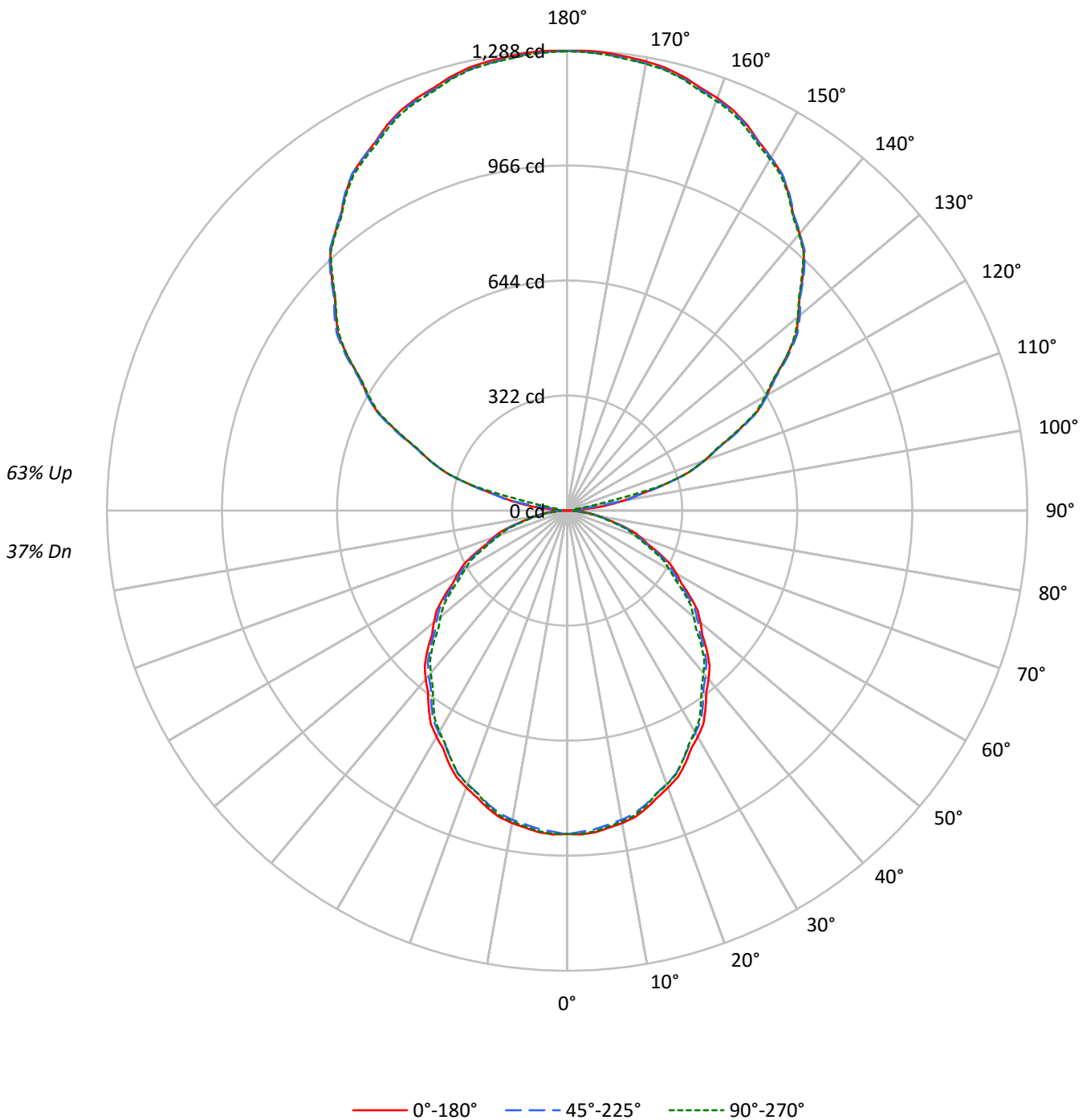
Input Watts (W): 45.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	37
1	95	91	87	83	86	82	79	76	67	64	62	52	51	50	39	38	37	31
2	86	79	73	68	78	72	67	62	58	55	52	46	44	41	35	33	32	26
3	79	69	62	57	71	63	57	52	51	47	43	41	38	35	31	29	27	22
4	72	61	54	48	65	56	49	44	46	41	37	36	33	30	27	25	23	19
5	66	55	47	41	60	50	43	38	41	36	32	32	29	26	25	22	20	17
6	61	49	41	35	55	45	38	33	37	31	28	29	25	23	22	20	18	15
7	56	44	36	31	51	40	33	29	33	28	24	27	23	20	20	18	16	13
8	52	40	32	27	47	37	30	25	30	25	21	24	20	18	19	16	14	11
9	48	36	29	24	44	33	27	22	28	23	19	22	19	16	17	15	13	10
10	45	33	26	21	41	31	24	20	25	21	17	21	17	14	16	13	11	9

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5846	5846	5846
5°	5859	5803	5841
10°	5823	5762	5795
15°	5760	5693	5717
20°	5670	5597	5606
25°	5573	5481	5476
30°	5452	5357	5330
35°	5324	5222	5149
40°	5193	5078	5005
45°	5050	4945	4847
50°	4893	4786	4641
55°	4741	4604	4476
60°	4561	4421	4265
65°	4345	4202	4060
70°	4137	3950	3814
75°	3770	3646	3521
80°	3355	3303	3221
85°	2920	2971	2816



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.3	1.4
10°-20°	241.1	3.8
20°-30°	356.0	5.6
30°-40°	415.4	6.6
40°-50°	417.2	6.6
50°-60°	366.2	5.8
60°-70°	272.9	4.3
70°-80°	156.0	2.5
80°-90°	48.1	0.8
90°-100°	46.7	0.7
100°-110°	288.0	4.6
110°-120°	522.3	8.3
120°-130°	670.4	10.6
130°-140°	721.0	11.4
140°-150°	676.8	10.7
150°-160°	547.5	8.7
160°-170°	354.1	5.6
170°-180°	122.1	1.9
0°-30°	682.4	10.8
0°-40°	1097.8	17.4
0°-60°	1881.2	29.8
0°-90°	2358.1	37.4
90°-120°	857.1	13.6
90°-150°	2925.3	46.4
90°-180°	3949.0	62.6
0°-180°	6307.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	905	905	905	905	905	
5°	904	902	895	901	901	86
15°	862	859	852	855	855	243
25°	782	778	769	770	768	360
35°	675	672	662	659	653	422
45°	553	550	541	533	531	426
55°	421	418	409	403	398	376
65°	284	282	275	269	266	282
75°	151	150	146	144	141	161
85°	39	40	40	39	38	44
90°	1	8	15	20	23	4
95°	54	50	15	20	20	69
105°	280	284	284	284	283	297
115°	526	531	532	528	522	521
125°	748	755	755	751	748	668
135°	933	939	937	935	929	719
145°	1082	1084	1084	1084	1079	676
155°	1192	1186	1188	1190	1183	549
165°	1257	1252	1252	1258	1251	355
175°	1286	1281	1281	1288	1280	122
180°	1286	1286	1286	1286	1286	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	905.2	905.2	905.2	905.2	905.2	905.2	905.2	905.2	905.2	905.2	905.2
2.5°	907.5	907.1	906.7	906.3	906.0	905.1	903.9	902.6	901.4	900.0	901.4
5°	903.8	903.4	903.1	902.8	902.5	901.5	899.9	898.3	896.7	895.1	896.6
7.5°	895.4	895.1	894.8	894.5	894.2	893.2	891.4	889.7	887.9	886.2	887.5
10°	888.0	887.7	887.4	887.0	886.7	885.7	883.9	882.2	880.4	878.7	880.0
12.5°	878.8	878.3	877.7	877.1	876.6	875.4	873.8	872.2	870.5	868.9	870.0
15°	861.5	861.0	860.5	860.1	859.6	858.5	856.8	855.0	853.2	851.5	852.2
17.5°	841.6	840.9	840.2	839.5	838.8	837.5	835.8	833.9	832.1	830.3	831.2
20°	825.0	824.6	824.3	824.1	823.7	822.6	820.5	818.4	816.3	814.3	815.4
22.5°	808.3	807.8	807.2	806.6	806.1	804.8	802.9	801.0	799.0	797.0	797.8
25°	782.0	781.2	780.4	779.7	778.8	777.4	775.3	773.3	771.2	769.1	769.5
27.5°	751.2	750.7	750.3	749.8	749.3	748.0	745.8	743.8	741.6	739.5	739.5
30°	731.1	730.7	730.2	729.7	729.2	727.8	725.5	723.0	720.7	718.3	717.9
32.5°	709.4	708.7	707.9	707.2	706.4	705.0	702.9	700.8	698.6	696.5	696.0
35°	675.3	674.7	674.0	673.4	672.8	671.4	669.1	666.8	664.7	662.4	661.7
37.5°	639.9	639.1	638.4	637.5	636.8	635.3	633.2	631.1	629.0	626.9	625.8
40°	615.9	615.1	614.3	613.5	612.7	611.1	609.0	606.7	604.5	602.3	600.9
42.5°	590.1	589.5	588.7	588.1	587.4	586.0	583.7	581.5	579.3	577.0	575.8
45°	552.9	552.2	551.6	550.9	550.4	549.0	547.1	545.3	543.3	541.4	539.5
47.5°	512.7	512.7	512.8	512.8	512.8	511.7	509.4	507.2	504.9	502.6	500.7
50°	487.0	486.4	486.0	485.5	485.0	483.9	481.9	480.0	478.2	476.3	474.2
52.5°	460.6	460.2	460.0	459.6	459.2	458.0	456.0	453.9	451.9	449.9	448.1
55°	421.1	420.6	420.1	419.6	419.1	417.8	415.6	413.4	411.1	408.9	407.5
57.5°	379.4	379.2	378.9	378.6	378.4	377.3	375.4	373.5	371.6	369.9	368.0
60°	353.1	352.4	351.8	351.1	350.5	349.3	347.6	345.8	344.0	342.3	340.7
62.5°	325.6	325.1	324.5	324.0	323.5	322.5	321.0	319.5	318.0	316.5	314.8
65°	284.3	284.0	283.7	283.3	283.0	282.0	280.2	278.5	276.7	275.0	273.5
67.5°	244.3	243.6	243.0	242.3	241.7	240.7	239.4	238.1	236.8	235.4	234.2
70°	219.1	218.4	217.5	216.8	215.9	214.8	213.4	212.0	210.6	209.2	208.1
72.5°	191.6	191.1	190.6	190.0	189.5	188.7	187.8	186.9	186.0	185.0	184.0
75°	151.1	150.8	150.4	150.1	149.9	149.3	148.5	147.7	146.8	146.1	145.6
77.5°	113.8	113.6	113.5	113.3	113.2	112.9	112.4	112.1	111.6	111.1	110.8
80°	90.2	90.2	90.2	90.2	90.2	90.1	89.7	89.4	89.2	88.8	88.6
82.5°	69.7	69.4	69.1	68.8	68.6	68.4	68.3	68.3	68.2	68.1	67.9
85°	39.4	39.6	39.7	39.9	40.1	40.1	40.1	40.1	40.1	40.1	40.0
87.5°	15.6	16.0	16.3	16.7	17.1	17.2	17.4	17.6	17.8	17.9	18.2
90°	0.9	2.6	4.3	6.0	7.7	9.3	10.8	12.3	13.8	15.3	16.3
92.5°	14.7	13.5	12.3	11.1	9.9	10.0	11.3	12.6	13.9	15.3	16.3
95°	54.3	53.7	53.1	52.4	51.8	47.4	39.4	31.4	23.3	15.3	16.3
97.5°	113.5	114.6	115.7	116.9	118.0	110.7	94.7	78.8	62.9	46.9	40.9
100°	159.2	159.9	160.4	161.1	161.7	162.5	163.3	164.2	165.0	165.9	134.3
102.5°	205.8	206.5	207.4	208.1	209.0	209.6	210.1	210.6	211.1	211.6	205.7
105°	280.2	281.1	281.9	282.8	283.6	284.1	284.1	284.1	284.1	284.1	284.1
107.5°	357.7	357.7	357.7	357.7	357.7	357.9	358.3	358.7	359.1	359.6	359.6
110°	408.0	408.0	408.0	408.0	408.0	408.2	408.6	409.1	409.4	409.9	409.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	455.2	455.8	456.3	456.8	457.3	457.7	458.0	458.2	458.5	458.7	457.9
115°	526.2	527.3	528.3	529.3	530.5	531.0	531.3	531.5	531.7	531.9	531.0
117.5°	599.6	599.6	599.6	599.5	599.5	599.8	600.6	601.4	602.2	603.0	601.9
120°	645.4	645.2	644.9	644.7	644.5	644.7	645.4	646.0	646.6	647.2	646.9
122.5°	685.8	686.5	687.4	688.2	689.0	689.6	689.8	690.1	690.4	690.7	690.3
125°	748.3	749.8	751.3	752.7	754.2	755.0	755.0	755.0	755.0	755.0	754.1
127.5°	807.9	809.1	810.1	811.2	812.2	812.7	812.6	812.5	812.3	812.2	811.7
130°	844.6	845.6	846.7	847.7	848.9	849.4	849.7	849.9	850.1	850.3	849.7
132.5°	881.2	882.4	883.6	884.9	886.1	886.5	886.0	885.5	885.0	884.7	884.5
135°	933.2	934.5	935.8	937.1	938.3	938.8	938.3	937.9	937.5	937.1	936.6
137.5°	981.1	982.2	983.3	984.4	985.5	985.9	985.5	985.1	984.7	984.3	984.4
140°	1012.4	1012.8	1013.2	1013.6	1014.1	1014.2	1014.0	1013.7	1013.5	1013.3	1013.7
142.5°	1040.6	1040.8	1041.1	1041.3	1041.6	1041.9	1042.2	1042.5	1042.7	1043.0	1043.1
145°	1081.9	1082.4	1082.8	1083.3	1083.6	1083.8	1083.8	1083.8	1083.8	1083.8	1084.1
147.5°	1118.1	1118.1	1118.0	1117.9	1117.9	1117.9	1118.1	1118.4	1118.7	1118.9	1119.2
150°	1141.0	1140.7	1140.2	1139.8	1139.3	1139.3	1139.8	1140.2	1140.7	1141.0	1141.5
152.5°	1163.2	1162.2	1161.3	1160.4	1159.4	1159.2	1159.6	1160.1	1160.5	1160.8	1161.3
155°	1191.6	1190.3	1189.0	1187.8	1186.5	1186.1	1186.5	1186.9	1187.3	1187.8	1188.4
157.5°	1213.5	1212.8	1212.0	1211.3	1210.4	1210.1	1210.1	1210.1	1210.2	1210.2	1211.0
160°	1228.8	1227.5	1226.2	1224.9	1223.7	1223.1	1223.3	1223.6	1223.8	1224.0	1224.8
162.5°	1241.0	1239.7	1238.4	1237.2	1235.9	1235.3	1235.6	1235.8	1236.0	1236.1	1237.4
165°	1257.4	1256.1	1254.8	1253.6	1252.3	1251.7	1252.0	1252.2	1252.4	1252.5	1253.9
167.5°	1269.5	1268.3	1267.0	1265.6	1264.3	1263.8	1263.9	1264.1	1264.4	1264.6	1266.1
170°	1276.4	1275.0	1273.5	1272.0	1270.5	1269.9	1270.1	1270.3	1270.5	1270.7	1272.4
172.5°	1281.0	1279.5	1278.0	1276.6	1275.1	1274.5	1274.9	1275.3	1275.6	1276.0	1277.5
175°	1285.9	1284.7	1283.4	1282.1	1280.8	1280.3	1280.5	1280.7	1281.0	1281.2	1282.9
177.5°	1288.3	1287.2	1286.2	1285.2	1284.2	1283.7	1283.9	1284.1	1284.2	1284.4	1285.6
180°	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	905.2	905.2	905.2	905.2	905.2	905.2	905.2	905.2
2.5°	902.6	903.9	905.1	905.7	905.6	905.4	905.3	905.2
5°	898.1	899.5	900.9	901.5	901.4	901.3	901.1	900.9
7.5°	888.9	890.3	891.7	892.4	892.2	892.0	891.9	891.7
10°	881.3	882.5	883.8	884.4	884.2	884.0	883.8	883.7
12.5°	871.0	872.0	873.0	873.5	873.5	873.5	873.5	873.4
15°	853.1	853.8	854.7	855.1	855.1	855.1	855.1	855.1
17.5°	832.3	833.2	834.2	834.3	833.5	832.7	832.0	831.1
20°	816.4	817.6	818.7	818.9	818.0	817.3	816.4	815.7
22.5°	798.5	799.3	800.0	800.1	799.6	799.0	798.4	798.0
25°	769.8	770.1	770.4	770.3	769.9	769.4	768.9	768.5
27.5°	739.6	739.7	739.7	739.5	739.0	738.6	738.1	737.6
30°	717.7	717.4	717.0	716.6	716.1	715.7	715.2	714.7
32.5°	695.4	694.7	694.2	693.5	692.7	691.8	690.9	690.0
35°	660.8	660.1	659.2	658.2	657.0	655.6	654.4	653.1
37.5°	624.5	623.4	622.2	621.2	620.5	619.8	619.1	618.3
40°	599.4	597.9	596.5	595.6	595.1	594.7	594.2	593.7
42.5°	574.5	573.2	571.8	570.8	570.0	569.4	568.6	567.9
45°	537.5	535.6	533.8	532.5	532.1	531.6	531.1	530.7
47.5°	498.7	496.7	494.8	493.3	492.2	491.1	489.9	488.8
50°	472.1	470.0	468.0	466.4	465.2	464.1	463.0	461.9
52.5°	446.2	444.4	442.6	441.1	439.9	438.6	437.3	436.1
55°	406.0	404.6	403.2	401.9	400.8	399.6	398.6	397.5
57.5°	366.1	364.3	362.4	361.2	360.6	360.0	359.4	358.8
60°	339.1	337.5	335.9	334.6	333.5	332.3	331.2	330.2
62.5°	313.1	311.4	309.6	308.4	307.6	306.6	305.8	304.9
65°	272.1	270.7	269.3	268.2	267.6	266.9	266.4	265.7
67.5°	233.1	231.9	230.6	229.8	229.4	229.0	228.7	228.3
70°	207.2	206.2	205.3	204.5	203.9	203.2	202.6	202.0
72.5°	182.9	181.8	180.7	179.8	179.2	178.6	178.0	177.3
75°	145.2	144.7	144.2	143.6	143.0	142.3	141.8	141.1
77.5°	110.6	110.3	110.0	109.6	109.1	108.8	108.3	107.8
80°	88.5	88.3	88.1	87.9	87.6	87.3	87.0	86.6
82.5°	67.6	67.3	67.0	66.8	66.8	66.7	66.6	66.6
85°	39.8	39.6	39.5	39.2	38.9	38.5	38.3	38.0
87.5°	18.4	18.6	18.8	18.9	18.7	18.6	18.5	18.3
90°	17.3	18.5	19.5	20.4	21.0	21.6	22.2	22.9
92.5°	17.3	18.5	19.5	20.2	20.5	20.7	21.0	21.4
95°	17.3	18.5	19.5	20.0	20.0	20.0	20.0	20.0
97.5°	35.0	28.9	23.0	20.0	20.0	20.0	20.0	20.0
100°	102.7	71.2	39.6	23.4	22.5	21.7	20.8	20.0
102.5°	199.6	193.7	187.8	177.6	163.2	148.7	134.3	119.9
105°	284.1	284.1	284.1	284.0	283.8	283.5	283.3	283.1
107.5°	359.7	359.7	359.8	359.5	358.8	358.2	357.5	356.9
110°	408.6	408.0	407.4	407.2	407.4	407.6	407.7	408.0





TEST NUMBER: P333386-830

CATALOG NUMBER: S125DIW-S610D1050U830-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	457.1	456.3	455.5	455.0	454.7	454.3	454.0	453.7
115°	530.2	529.3	528.5	527.4	526.2	524.9	523.7	522.4
117.5°	600.9	599.7	598.6	597.8	597.3	596.7	596.2	595.6
120°	646.4	646.0	645.5	644.8	643.8	642.7	641.7	640.6
122.5°	689.8	689.5	689.0	688.2	687.0	685.8	684.6	683.3
125°	753.3	752.4	751.6	750.8	750.3	749.6	748.9	748.3
127.5°	811.2	810.8	810.3	809.3	807.8	806.2	804.6	803.0
130°	849.0	848.4	847.7	846.9	845.8	844.8	843.8	842.7
132.5°	884.4	884.2	884.1	883.5	882.5	881.4	880.3	879.3
135°	936.2	935.8	935.4	934.5	933.2	932.0	930.7	929.4
137.5°	984.5	984.6	984.7	984.2	983.1	981.9	980.9	979.8
140°	1014.2	1014.6	1015.0	1014.6	1013.3	1012.0	1010.8	1009.5
142.5°	1043.2	1043.3	1043.4	1042.8	1041.5	1040.3	1039.0	1037.7
145°	1084.3	1084.5	1084.7	1084.2	1082.9	1081.7	1080.3	1079.1
147.5°	1119.5	1119.7	1119.9	1119.4	1117.8	1116.3	1114.7	1113.2
150°	1141.9	1142.4	1142.7	1142.1	1140.4	1138.7	1137.0	1135.3
152.5°	1161.7	1162.2	1162.5	1162.1	1160.5	1159.0	1157.4	1155.9
155°	1189.0	1189.7	1190.3	1189.8	1188.1	1186.4	1184.7	1183.0
157.5°	1211.6	1212.3	1213.0	1212.5	1210.8	1209.1	1207.4	1205.7
160°	1225.7	1226.5	1227.4	1226.9	1225.3	1223.6	1221.9	1220.2
162.5°	1238.6	1239.7	1241.0	1240.6	1238.7	1236.9	1235.0	1233.1
165°	1255.1	1256.4	1257.6	1257.4	1255.7	1254.1	1252.4	1250.7
167.5°	1267.6	1269.1	1270.7	1270.5	1268.6	1266.7	1264.8	1262.9
170°	1274.1	1275.8	1277.5	1277.3	1275.4	1273.6	1271.7	1269.7
172.5°	1279.1	1280.6	1282.1	1282.0	1280.1	1278.1	1276.2	1274.3
175°	1284.6	1286.3	1288.0	1287.9	1285.9	1284.0	1282.1	1280.3
177.5°	1286.8	1288.0	1289.2	1289.1	1287.7	1286.4	1285.1	1283.6
180°	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9

(END OF REPORT)