

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: P333384-830

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333384-830  
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-D  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1050 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6214.1 lumens  
Efficiency: N/A  
Efficacy: 137.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: Semi-Indirect

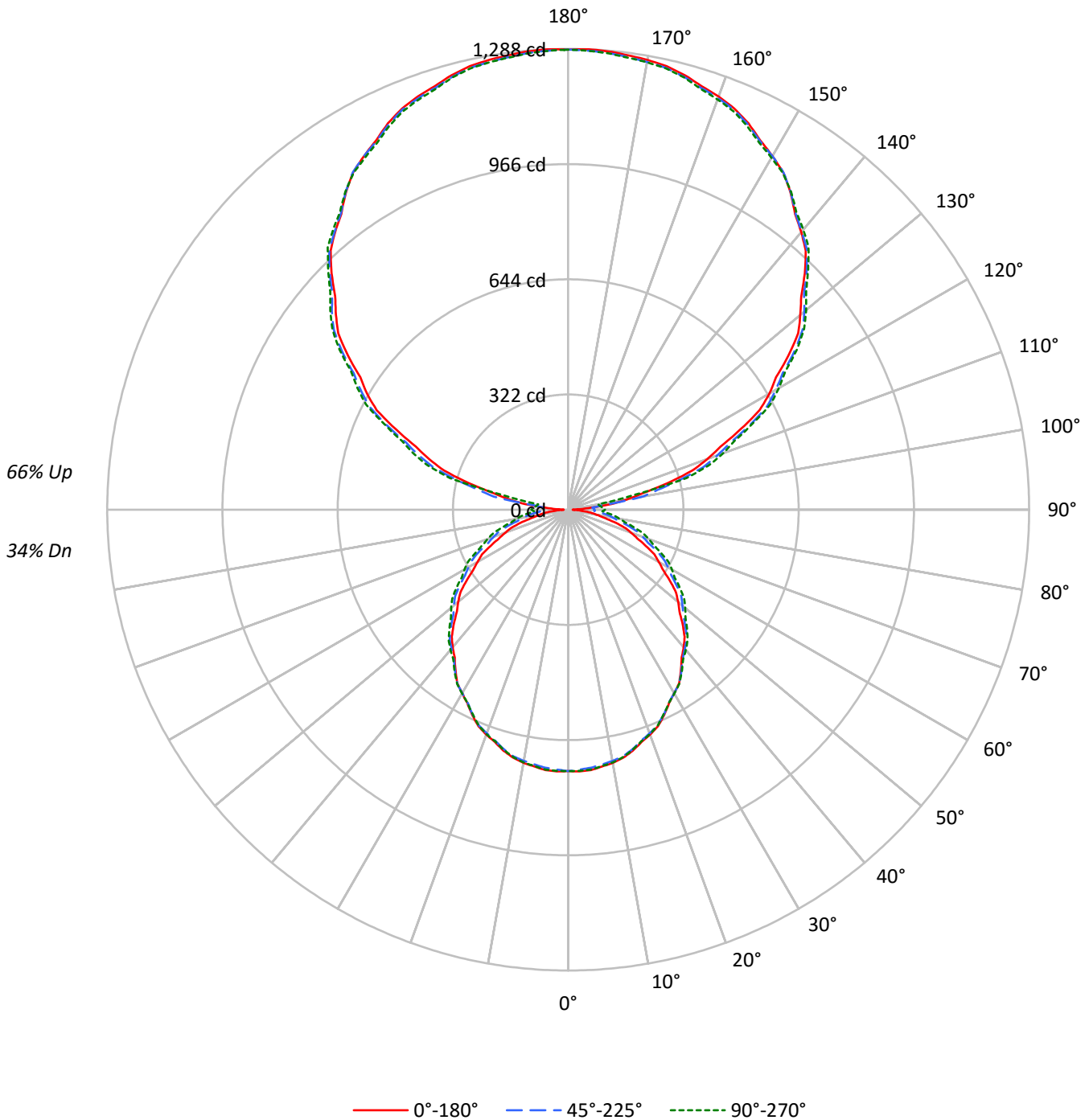
Input Watts (W): 45.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	103	103	103	103	93	93	93	93	75	75	75	57	57	57	42	42	42	34
1	94	89	85	82	84	81	77	74	64	62	60	50	48	47	36	35	34	28
2	85	78	71	66	76	70	65	60	56	52	49	43	41	39	31	30	28	23
3	77	68	61	55	70	62	55	50	49	45	41	38	35	32	28	26	24	19
4	71	60	52	46	63	54	48	42	44	39	35	34	30	28	25	22	20	16
5	65	53	45	39	58	48	41	36	39	34	30	30	27	24	22	20	18	14
6	60	48	40	34	53	43	36	31	35	30	26	27	23	21	20	17	15	12
7	55	43	35	30	49	39	32	27	32	26	23	25	21	18	18	16	14	11
8	51	39	31	26	46	35	29	24	29	24	20	22	19	16	17	14	12	10
9	47	35	28	23	43	32	26	21	26	21	18	21	17	14	15	13	11	9
10	44	32	25	20	40	29	23	19	24	19	16	19	15	13	14	12	10	8

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

	0°	45°	90°
0°	4718	4718	4718
5°	4727	4630	4645
10°	4693	4548	4541
15°	4638	4449	4409
20°	4562	4326	4276
25°	4473	4195	4112
30°	4364	4051	3964
35°	4263	3919	3829
40°	4160	3779	3691
45°	4043	3661	3570
50°	3932	3531	3463
55°	3798	3408	3337
60°	3652	3269	3208
65°	3499	3124	3063
70°	3326	2924	2915
75°	3052	2732	2732
80°	2694	2501	2532
85°	2358	2344	2469



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.1	1.1
10°-20°	196.1	3.2
20°-30°	291.6	4.7
30°-40°	345.4	5.6
40°-50°	357.1	5.7
50°-60°	329.0	5.3
60°-70°	265.9	4.3
70°-80°	178.1	2.9
80°-90°	95.0	1.5
90°-100°	98.6	1.6
100°-110°	326.2	5.2
110°-120°	548.0	8.8
120°-130°	684.9	11.0
130°-140°	727.4	11.7
140°-150°	678.1	10.9
150°-160°	547.5	8.8
160°-170°	354.1	5.7
170°-180°	122.1	2.0
0°-30°	556.7	9.0
0°-40°	902.2	14.5
0°-60°	1588.2	25.6
0°-90°	2127.3	34.2
90°-120°	972.7	15.7
90°-150°	3063.1	49.3
90°-180°	4087.0	65.8
0°-180°	6214.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	730	730	730	730	730	
5°	730	729	724	729	729	69
15°	698	698	693	697	695	196
25°	634	636	632	634	631	292
35°	549	553	551	554	554	343
45°	452	460	463	468	469	349
55°	347	359	370	378	381	310
65°	239	256	273	283	286	237
75°	132	151	173	187	191	140
85°	39	63	88	103	110	42
90°	12	43	74	94	103	10
95°	64	78	68	87	93	77
105°	287	302	324	337	342	304
115°	530	541	560	568	568	526
125°	751	758	772	779	780	671
135°	935	940	943	950	948	720
145°	1083	1084	1084	1088	1086	677
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°	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5
2.5°	732.2	731.9	731.7	731.4	731.1	730.6	729.7	728.8	727.9	727.0	727.9
5°	730.5	730.1	729.8	729.5	729.2	728.5	727.4	726.2	725.1	724.0	725.3
7.5°	724.0	723.9	723.8	723.6	723.5	722.8	721.7	720.6	719.4	718.3	719.3
10°	718.3	718.3	718.3	718.3	718.3	717.7	716.3	715.1	713.8	712.6	713.7
12.5°	710.3	710.4	710.5	710.7	710.8	710.3	709.3	708.3	707.3	706.2	707.1
15°	697.5	697.7	697.9	698.0	698.1	697.7	696.5	695.4	694.4	693.2	694.2
17.5°	680.9	681.2	681.6	681.8	682.2	681.7	680.7	679.6	678.4	677.3	678.1
20°	668.8	669.2	669.5	669.9	670.1	669.8	668.6	667.5	666.4	665.2	665.7
22.5°	655.2	655.7	656.3	656.9	657.4	657.0	655.8	654.6	653.4	652.1	652.7
25°	633.8	634.2	634.7	635.2	635.7	635.5	634.5	633.6	632.5	631.6	632.3
27.5°	610.0	610.7	611.4	612.1	612.8	612.7	611.5	610.5	609.4	608.3	608.7
30°	592.2	593.2	594.2	595.1	596.1	596.1	595.1	594.2	593.2	592.2	592.6
32.5°	576.2	577.0	577.9	578.7	579.5	579.6	578.9	578.2	577.5	576.7	577.1
35°	548.6	549.7	550.8	551.9	553.0	553.4	552.9	552.3	551.9	551.4	551.9
37.5°	520.9	522.0	522.9	524.0	525.0	525.4	525.3	525.1	524.9	524.8	525.4
40°	502.0	503.3	504.5	505.9	507.1	507.7	507.5	507.4	507.2	507.0	507.7
42.5°	481.4	483.1	484.7	486.4	488.0	489.0	489.4	489.7	490.0	490.4	491.2
45°	451.9	453.6	455.3	457.1	458.9	460.1	461.0	461.8	462.5	463.4	464.5
47.5°	421.7	423.3	424.9	426.5	428.2	429.6	431.0	432.3	433.8	435.1	436.8
50°	401.1	402.7	404.5	406.3	408.0	409.8	411.5	413.3	415.0	416.8	418.6
52.5°	379.3	381.4	383.5	385.7	387.8	389.9	392.1	394.2	396.3	398.4	400.3
55°	347.3	349.9	352.4	355.0	357.5	360.1	362.6	365.1	367.7	370.2	372.0
57.5°	314.7	317.7	320.7	323.9	326.9	329.9	332.8	335.7	338.7	341.6	343.6
60°	292.9	296.1	299.3	302.5	305.7	308.8	312.0	315.2	318.4	321.5	324.0
62.5°	271.7	274.8	278.1	281.3	284.5	287.8	291.2	294.6	298.0	301.5	304.2
65°	239.2	242.9	246.5	250.2	253.8	257.6	261.4	265.2	269.0	272.9	275.2
67.5°	208.6	212.1	215.6	219.1	222.6	226.4	230.3	234.1	238.0	242.0	244.8
70°	186.2	189.8	193.5	197.2	200.9	204.7	208.9	213.0	217.2	221.3	224.3
72.5°	164.4	168.2	172.0	175.8	179.6	183.7	188.2	192.7	197.3	201.8	205.1
75°	131.8	135.9	140.1	144.2	148.4	153.0	158.1	163.2	168.2	173.3	176.4
77.5°	100.4	105.2	110.0	114.7	119.5	124.3	129.2	134.1	139.0	143.9	147.4
80°	81.0	85.7	90.5	95.3	100.0	105.1	110.6	115.9	121.3	126.8	130.3
82.5°	63.2	68.1	73.2	78.2	83.3	88.6	94.1	99.6	105.2	110.7	114.0
85°	39.4	44.7	49.9	55.1	60.4	65.8	71.4	76.9	82.5	88.1	91.6
87.5°	22.5	28.0	33.4	38.8	44.3	49.9	55.5	61.3	66.9	72.7	76.5
90°	12.4	19.2	26.0	32.8	39.6	46.4	53.3	60.2	67.1	74.0	78.7
92.5°	25.0	28.6	32.0	35.5	39.1	44.3	51.1	58.0	64.8	71.7	76.3
95°	63.6	67.1	70.7	74.2	77.7	78.0	75.4	72.8	70.1	67.5	72.1
97.5°	121.9	126.8	131.6	136.5	141.4	138.5	127.7	117.1	106.3	95.6	92.9
100°	167.1	171.1	175.0	179.0	182.9	187.9	193.9	199.8	205.8	211.7	183.5
102.5°	213.0	216.9	220.8	224.7	228.6	233.3	238.7	244.2	249.7	255.1	252.4
105°	286.7	290.1	293.5	296.9	300.3	304.3	309.2	313.9	318.7	323.5	326.7
107.5°	363.3	365.4	367.6	369.8	371.9	375.5	380.5	385.5	390.5	395.5	398.7
110°	413.0	414.9	416.8	418.8	420.7	424.0	429.0	433.8	438.7	443.6	445.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	460.3	462.3	464.4	466.4	468.4	471.7	476.4	480.9	485.5	490.1	492.2
115°	530.5	532.6	534.8	537.1	539.2	542.4	546.8	551.1	555.5	559.9	561.8
117.5°	603.2	603.9	604.5	605.2	606.0	608.6	613.4	618.1	622.8	627.5	629.1
120°	648.9	649.2	649.5	649.7	650.0	652.2	656.6	660.9	665.2	669.5	671.8
122.5°	688.8	689.8	690.9	691.8	692.9	695.3	699.2	702.9	706.8	710.7	712.8
125°	751.2	752.5	753.8	755.2	756.5	758.7	762.0	765.1	768.3	771.5	773.2
127.5°	810.1	811.1	811.9	812.8	813.7	815.4	817.9	820.4	822.8	825.4	827.3
130°	846.8	847.6	848.6	849.4	850.4	852.0	854.4	856.9	859.3	861.8	863.4
132.5°	882.8	884.0	885.1	886.4	887.6	888.8	890.0	891.3	892.6	893.8	895.9
135°	934.7	935.8	936.9	938.0	939.1	940.0	940.8	941.4	942.1	942.8	944.4
137.5°	982.4	983.4	984.3	985.3	986.3	986.8	987.0	987.1	987.3	987.5	989.5
140°	1013.0	1013.5	1013.9	1014.4	1014.7	1014.9	1014.9	1014.8	1014.8	1014.7	1016.9
142.5°	1041.3	1041.4	1041.5	1041.7	1041.8	1042.1	1042.4	1042.7	1043.0	1043.3	1044.9
145°	1082.7	1082.9	1083.2	1083.5	1083.7	1083.8	1083.8	1083.8	1083.8	1083.8	1084.9
147.5°	1118.1	1118.1	1118.0	1117.9	1117.9	1117.9	1118.1	1118.4	1118.7	1118.9	1119.5
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°	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5
2.5°	728.8	729.7	730.6	730.9	730.8	730.8	730.6	730.5
5°	726.5	727.8	729.1	729.6	729.5	729.3	729.2	729.1
7.5°	720.5	721.6	722.7	723.2	723.0	722.9	722.7	722.6
10°	714.8	715.9	717.0	717.5	717.4	717.2	717.0	716.8
12.5°	707.9	708.8	709.7	709.9	709.5	709.1	708.7	708.2
15°	695.1	696.1	697.0	697.2	696.5	695.9	695.3	694.7
17.5°	678.8	679.5	680.2	680.4	680.0	679.7	679.3	678.9
20°	666.3	666.8	667.2	667.4	667.4	667.4	667.4	667.4
22.5°	653.3	653.9	654.5	654.6	654.2	653.8	653.5	653.1
25°	632.9	633.6	634.1	634.1	633.3	632.5	631.7	630.9
27.5°	609.2	609.6	610.1	610.1	609.8	609.5	609.3	609.0
30°	592.9	593.2	593.5	593.6	593.4	593.2	593.1	593.0
32.5°	577.4	577.7	578.1	578.2	578.0	577.8	577.7	577.5
35°	552.3	552.9	553.4	553.6	553.6	553.6	553.6	553.6
37.5°	526.0	526.7	527.4	527.6	527.5	527.4	527.4	527.4
40°	508.3	509.0	509.5	510.0	510.4	510.7	511.0	511.3
42.5°	491.9	492.7	493.4	493.9	494.0	494.0	494.1	494.2
45°	465.5	466.7	467.8	468.4	468.6	468.7	468.9	469.1
47.5°	438.4	440.0	441.6	442.6	443.0	443.3	443.7	444.0
50°	420.3	422.1	423.8	424.9	425.4	425.8	426.3	426.8
52.5°	402.2	404.1	406.0	407.1	407.5	407.7	408.1	408.5
55°	373.7	375.5	377.2	378.4	379.1	379.8	380.3	381.0
57.5°	345.6	347.6	349.6	350.8	351.4	351.9	352.3	352.8
60°	326.3	328.7	331.1	332.5	333.0	333.5	333.9	334.4
62.5°	306.8	309.4	312.1	313.7	314.2	314.9	315.5	316.1
65°	277.6	280.0	282.4	283.9	284.6	285.2	285.8	286.4
67.5°	247.7	250.6	253.4	255.3	256.2	257.0	257.9	258.6
70°	227.3	230.4	233.4	235.4	236.3	237.2	238.3	239.2
72.5°	208.4	211.6	214.9	216.9	217.6	218.3	219.0	219.7
75°	179.6	182.9	186.1	188.0	188.8	189.6	190.4	191.2
77.5°	150.9	154.5	158.0	160.0	160.6	161.3	161.9	162.6
80°	133.7	137.2	140.7	142.8	143.5	144.1	144.8	145.3
82.5°	117.4	120.8	124.2	126.5	127.6	128.8	129.9	131.0
85°	95.1	98.6	102.1	104.4	105.8	107.0	108.3	109.5
87.5°	80.4	84.3	88.1	90.7	91.9	93.2	94.4	95.7
90°	83.4	88.1	92.8	96.0	97.8	99.6	101.3	103.1
92.5°	80.9	85.5	90.0	93.0	94.4	95.9	97.3	98.7
95°	76.6	81.2	85.8	88.6	89.7	90.9	92.0	93.0
97.5°	90.3	87.7	85.1	84.3	85.4	86.4	87.6	88.6
100°	155.2	127.1	98.8	84.7	84.8	85.0	85.1	85.2
102.5°	249.7	246.9	244.1	236.0	222.5	209.2	195.7	182.2
105°	329.8	333.0	336.2	338.3	339.1	340.1	340.9	341.9
107.5°	401.9	405.1	408.3	410.1	410.4	410.8	411.1	411.5
110°	448.4	450.7	453.1	455.0	456.3	457.6	458.9	460.2





TEST NUMBER: P333384-830

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

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	494.3	496.3	498.4	499.9	500.7	501.5	502.4	503.1
115°	563.9	565.9	567.9	568.7	568.4	568.2	567.8	567.5
117.5°	630.7	632.4	634.0	635.0	635.6	636.0	636.6	637.2
120°	674.0	676.3	678.6	679.7	679.6	679.5	679.4	679.3
122.5°	714.9	717.1	719.3	720.2	719.9	719.6	719.3	719.1
125°	774.9	776.6	778.3	779.2	779.3	779.5	779.7	779.9
127.5°	829.2	831.0	832.9	833.5	832.9	832.3	831.6	830.9
130°	865.0	866.6	868.2	868.8	868.6	868.3	868.0	867.7
132.5°	898.0	900.1	902.2	903.1	902.7	902.3	901.9	901.4
135°	946.0	947.7	949.3	950.0	949.5	949.0	948.5	948.0
137.5°	991.5	993.3	995.3	996.1	995.6	995.1	994.7	994.2
140°	1019.1	1021.2	1023.4	1024.3	1023.6	1022.9	1022.3	1021.7
142.5°	1046.5	1048.1	1049.7	1050.2	1049.5	1048.9	1048.2	1047.6
145°	1085.9	1086.8	1087.9	1088.1	1087.4	1086.8	1086.2	1085.5
147.5°	1119.9	1120.5	1121.0	1120.6	1119.4	1118.1	1116.9	1115.7
150°	1141.9	1142.4	1142.7	1142.2	1140.7	1139.2	1137.6	1136.0
152.5°	1161.7	1162.2	1162.5	1162.1	1160.6	1159.0	1157.5	1156.0
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)