

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

Luminaire Tested: **S125DIW-S610D1050U835-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333384  
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-S610D1050U835-4F0-1E-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: 6592.9 lumens  
Efficiency: N/A  
Efficacy: 145.9 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

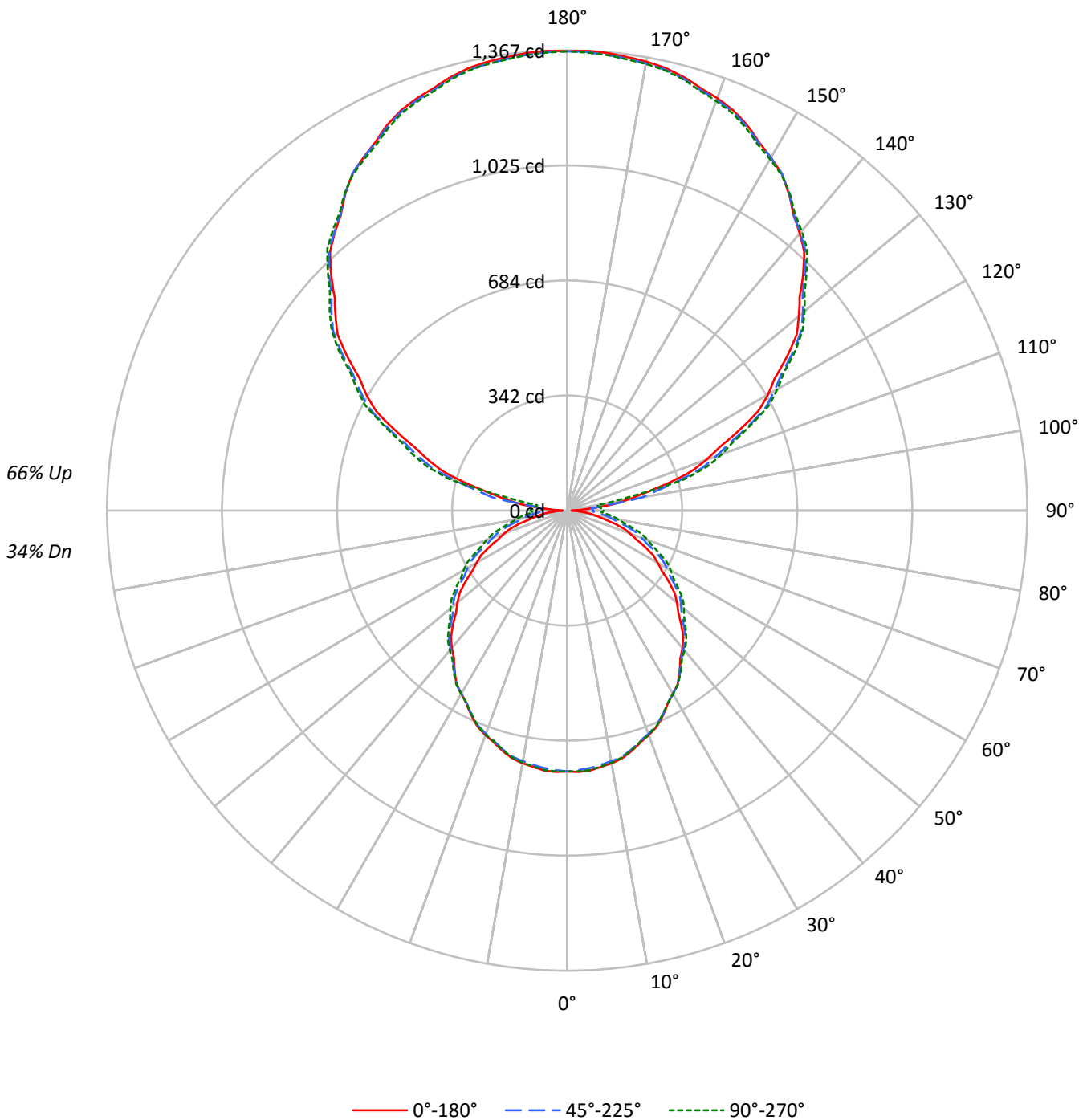
Input Watts (W): 45.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5005	5005	5005
5°	5015	4912	4928
10°	4980	4825	4817
15°	4920	4720	4677
20°	4840	4590	4536
25°	4745	4451	4363
30°	4630	4298	4206
35°	4523	4158	4062
40°	4413	4010	3916
45°	4289	3884	3788
50°	4172	3746	3674
55°	4029	3616	3540
60°	3875	3468	3404
65°	3713	3314	3250
70°	3527	3103	3093
75°	3237	2899	2899
80°	2857	2653	2687
85°	2502	2488	2620



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.3	1.1
10°-20°	208.0	3.2
20°-30°	309.4	4.7
30°-40°	366.5	5.6
40°-50°	378.9	5.7
50°-60°	349.0	5.3
60°-70°	282.1	4.3
70°-80°	189.0	2.9
80°-90°	100.8	1.5
90°-100°	104.6	1.6
100°-110°	346.1	5.2
110°-120°	581.4	8.8
120°-130°	726.7	11.0
130°-140°	771.7	11.7
140°-150°	719.4	10.9
150°-160°	580.9	8.8
160°-170°	375.7	5.7
170°-180°	129.6	2.0
0°-30°	590.7	9.0
0°-40°	957.1	14.5
0°-60°	1685.1	25.6
0°-90°	2257.0	34.2
90°-120°	1032.0	15.7
90°-150°	3249.8	49.3
90°-180°	4336.0	65.8
0°-180°	6592.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	775	775	775	775	775	
5°	775	773	768	774	774	73
15°	740	740	736	740	737	208
25°	672	674	670	673	669	309
35°	582	587	585	587	587	364
45°	479	488	492	497	498	370
55°	368	381	393	401	404	329
65°	254	271	290	300	304	252
75°	140	160	184	198	203	148
85°	42	67	94	110	116	45
90°	13	46	78	100	109	11
95°	68	83	72	92	99	81
105°	304	321	343	358	363	322
115°	563	574	594	603	602	558
125°	797	804	818	826	827	711
135°	992	997	1000	1008	1006	764
145°	1149	1150	1150	1154	1152	718
155°	1264	1259	1260	1263	1255	582
165°	1334	1328	1329	1334	1327	377
175°	1364	1359	1359	1366	1358	130
180°	1364	1364	1364	1364	1364	



TEST NUMBER: P333384

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	775.0	775.0	775.0	775.0	775.0	775.0	775.0	775.0	775.0	775.0	775.0
2.5°	776.8	776.5	776.3	776.0	775.7	775.1	774.2	773.2	772.3	771.3	772.3
5°	775.0	774.6	774.3	774.0	773.6	772.9	771.7	770.5	769.3	768.1	769.5
7.5°	768.1	768.0	767.9	767.7	767.6	766.9	765.7	764.5	763.3	762.1	763.2
10°	762.1	762.1	762.1	762.1	762.1	761.4	760.0	758.7	757.3	756.0	757.2
12.5°	753.6	753.7	753.8	754.0	754.1	753.6	752.5	751.5	750.4	749.3	750.2
15°	740.0	740.2	740.4	740.5	740.7	740.2	739.0	737.8	736.7	735.5	736.5
17.5°	722.4	722.7	723.1	723.4	723.8	723.3	722.2	721.0	719.8	718.6	719.4
20°	709.6	710.0	710.3	710.7	711.0	710.6	709.4	708.2	707.0	705.8	706.3
22.5°	695.1	695.7	696.3	696.9	697.5	697.1	695.8	694.5	693.2	691.9	692.5
25°	672.4	672.9	673.4	673.9	674.4	674.2	673.2	672.2	671.1	670.1	670.8
27.5°	647.2	647.9	648.7	649.4	650.2	650.0	648.8	647.7	646.5	645.4	645.8
30°	628.3	629.4	630.4	631.4	632.4	632.4	631.4	630.4	629.4	628.3	628.7
32.5°	611.3	612.2	613.1	614.0	614.8	614.9	614.2	613.4	612.7	611.9	612.3
35°	582.0	583.2	584.4	585.5	586.7	587.1	586.6	586.0	585.5	585.0	585.5
37.5°	552.7	553.8	554.8	555.9	557.0	557.4	557.3	557.1	556.9	556.8	557.4
40°	532.6	534.0	535.3	536.7	538.0	538.6	538.4	538.3	538.1	537.9	538.6
42.5°	510.7	512.5	514.2	516.0	517.8	518.8	519.2	519.6	519.9	520.3	521.1
45°	479.4	481.3	483.1	485.0	486.9	488.2	489.1	489.9	490.7	491.6	492.8
47.5°	447.4	449.1	450.8	452.5	454.3	455.8	457.3	458.7	460.2	461.6	463.4
50°	425.5	427.3	429.2	431.1	432.9	434.8	436.6	438.5	440.3	442.2	444.1
52.5°	402.4	404.6	406.9	409.2	411.4	413.7	416.0	418.2	420.5	422.7	424.7
55°	368.5	371.2	373.9	376.6	379.3	382.0	384.7	387.4	390.1	392.8	394.7
57.5°	333.9	337.1	340.3	343.6	346.8	350.0	353.1	356.2	359.3	362.4	364.5
60°	310.8	314.1	317.5	320.9	324.3	327.6	331.0	334.4	337.8	341.1	343.7
62.5°	288.3	291.6	295.0	298.4	301.8	305.3	308.9	312.6	316.2	319.9	322.7
65°	253.8	257.7	261.5	265.4	269.3	273.3	277.3	281.4	285.4	289.5	292.0
67.5°	221.3	225.0	228.7	232.5	236.2	240.2	244.3	248.4	252.5	256.7	259.7
70°	197.5	201.4	205.3	209.2	213.1	217.2	221.6	226.0	230.4	234.8	238.0
72.5°	174.4	178.5	182.5	186.5	190.5	194.9	199.7	204.5	209.3	214.1	217.6
75°	139.8	144.2	148.6	153.0	157.4	162.3	167.7	173.1	178.5	183.9	187.2
77.5°	106.5	111.6	116.7	121.7	126.8	131.9	137.1	142.3	147.5	152.7	156.4
80°	85.9	90.9	96.0	101.1	106.1	111.5	117.3	123.0	128.7	134.5	138.2
82.5°	67.0	72.3	77.7	83.0	88.4	94.0	99.8	105.7	111.6	117.5	121.0
85°	41.8	47.4	52.9	58.5	64.1	69.8	75.7	81.6	87.5	93.5	97.2
87.5°	23.9	29.7	35.4	41.2	47.0	52.9	58.9	65.0	71.0	77.1	81.2
90°	13.2	20.4	27.6	34.8	42.0	49.2	56.5	63.9	71.2	78.5	83.5
92.5°	26.5	30.3	34.0	37.7	41.5	47.0	54.2	61.5	68.8	76.1	80.9
95°	67.5	71.2	75.0	78.7	82.4	82.8	80.0	77.2	74.4	71.6	76.5
97.5°	129.3	134.5	139.6	144.8	150.0	146.9	135.5	124.2	112.8	101.4	98.6
100°	177.3	181.5	185.7	189.9	194.1	199.4	205.7	212.0	218.3	224.6	194.7
102.5°	226.0	230.1	234.3	238.4	242.5	247.5	253.3	259.1	264.9	270.7	267.8
105°	304.2	307.8	311.4	315.0	318.6	322.9	328.0	333.0	338.1	343.2	346.6
107.5°	385.4	387.7	390.0	392.3	394.6	398.4	403.7	409.0	414.3	419.6	423.0
110°	438.2	440.2	442.2	444.3	446.3	449.9	455.1	460.2	465.4	470.6	473.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	488.4	490.5	492.7	494.8	497.0	500.5	505.4	510.2	515.1	520.0	522.2
115°	562.8	565.1	567.4	569.8	572.1	575.5	580.1	584.7	589.4	594.0	596.1
117.5°	640.0	640.7	641.4	642.1	642.9	645.7	650.8	655.8	660.8	665.8	667.5
120°	688.5	688.8	689.1	689.3	689.6	692.0	696.6	701.2	705.7	710.3	712.7
122.5°	730.8	731.9	733.0	734.0	735.1	737.7	741.8	745.8	749.9	754.0	756.2
125°	797.0	798.4	799.8	801.2	802.6	805.0	808.4	811.7	815.1	818.5	820.3
127.5°	859.5	860.5	861.4	862.4	863.3	865.1	867.8	870.4	873.0	875.7	877.7
130°	898.4	899.3	900.3	901.2	902.2	903.9	906.5	909.1	911.7	914.3	916.0
132.5°	936.6	937.9	939.1	940.4	941.7	943.0	944.3	945.6	947.0	948.3	950.5
135°	991.7	992.8	994.0	995.2	996.4	997.3	998.1	998.8	999.5	1000.3	1002.0
137.5°	1042.3	1043.3	1044.3	1045.4	1046.4	1047.0	1047.2	1047.3	1047.5	1047.7	1049.8
140°	1074.8	1075.3	1075.7	1076.2	1076.6	1076.8	1076.8	1076.7	1076.7	1076.6	1078.9
142.5°	1104.8	1104.9	1105.0	1105.2	1105.3	1105.6	1105.9	1106.3	1106.6	1106.9	1108.6
145°	1148.7	1148.9	1149.2	1149.5	1149.8	1149.9	1149.9	1149.9	1149.9	1149.9	1151.0
147.5°	1186.3	1186.3	1186.2	1186.1	1186.0	1186.1	1186.3	1186.6	1186.9	1187.1	1187.7
150°	1210.6	1210.2	1209.7	1209.3	1208.8	1208.8	1209.3	1209.7	1210.2	1210.6	1211.1
152.5°	1234.1	1233.1	1232.1	1231.1	1230.1	1229.9	1230.3	1230.8	1231.2	1231.6	1232.1
155°	1264.2	1262.9	1261.5	1260.2	1258.8	1258.4	1258.8	1259.3	1259.7	1260.2	1260.8
157.5°	1287.5	1286.7	1285.9	1285.1	1284.2	1283.9	1283.9	1283.9	1284.0	1284.0	1284.8
160°	1303.7	1302.3	1301.0	1299.6	1298.3	1297.7	1297.9	1298.2	1298.4	1298.6	1299.5
162.5°	1316.6	1315.3	1313.9	1312.6	1311.2	1310.6	1310.9	1311.1	1311.3	1311.5	1312.8
165°	1334.0	1332.7	1331.3	1330.0	1328.6	1328.0	1328.3	1328.5	1328.7	1328.9	1330.3
167.5°	1346.9	1345.6	1344.2	1342.8	1341.4	1340.8	1341.0	1341.2	1341.5	1341.7	1343.3
170°	1354.2	1352.7	1351.1	1349.5	1347.9	1347.3	1347.5	1347.7	1347.9	1348.2	1350.0
172.5°	1359.1	1357.5	1355.9	1354.4	1352.8	1352.2	1352.6	1353.0	1353.4	1353.8	1355.4
175°	1364.3	1363.0	1361.6	1360.3	1358.9	1358.4	1358.6	1358.8	1359.1	1359.3	1361.1
177.5°	1366.8	1365.7	1364.6	1363.5	1362.5	1362.0	1362.2	1362.4	1362.5	1362.7	1364.0
180°	1364.3	1364.3	1364.3	1364.3	1364.3	1364.3	1364.3	1364.3	1364.3	1364.3	1364.3



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	775.0	775.0	775.0	775.0	775.0	775.0	775.0	775.0
2.5°	773.2	774.2	775.1	775.5	775.4	775.3	775.1	775.0
5°	770.8	772.2	773.5	774.1	774.0	773.8	773.6	773.5
7.5°	764.4	765.6	766.8	767.3	767.1	767.0	766.8	766.6
10°	758.4	759.5	760.7	761.2	761.1	760.9	760.7	760.5
12.5°	751.1	752.0	753.0	753.2	752.7	752.3	751.9	751.4
15°	737.5	738.5	739.5	739.7	739.0	738.3	737.7	737.0
17.5°	720.2	720.9	721.7	721.9	721.5	721.1	720.7	720.3
20°	706.9	707.4	707.9	708.1	708.1	708.1	708.1	708.1
22.5°	693.1	693.8	694.4	694.5	694.1	693.7	693.3	692.9
25°	671.5	672.2	672.8	672.8	671.9	671.1	670.2	669.4
27.5°	646.3	646.8	647.3	647.3	647.0	646.7	646.4	646.1
30°	629.0	629.4	629.7	629.8	629.6	629.4	629.3	629.1
32.5°	612.6	612.9	613.3	613.4	613.2	613.0	612.9	612.7
35°	586.0	586.6	587.1	587.3	587.3	587.3	587.3	587.3
37.5°	558.1	558.8	559.5	559.8	559.7	559.6	559.6	559.5
40°	539.3	540.0	540.6	541.1	541.5	541.8	542.2	542.5
42.5°	521.9	522.7	523.5	524.0	524.1	524.1	524.2	524.3
45°	493.9	495.1	496.3	497.0	497.2	497.3	497.5	497.7
47.5°	465.1	466.8	468.5	469.6	470.0	470.3	470.7	471.1
50°	445.9	447.8	449.6	450.8	451.3	451.8	452.3	452.8
52.5°	426.7	428.7	430.7	431.9	432.3	432.6	433.0	433.4
55°	396.5	398.4	400.2	401.5	402.2	402.9	403.5	404.2
57.5°	366.7	368.8	370.9	372.2	372.8	373.3	373.8	374.3
60°	346.2	348.7	351.3	352.8	353.3	353.8	354.3	354.8
62.5°	325.5	328.3	331.1	332.8	333.4	334.1	334.7	335.4
65°	294.5	297.1	299.6	301.2	301.9	302.6	303.2	303.9
67.5°	262.8	265.9	268.9	270.9	271.8	272.7	273.6	274.4
70°	241.2	244.4	247.6	249.7	250.7	251.7	252.8	253.8
72.5°	221.1	224.5	228.0	230.1	230.9	231.6	232.4	233.1
75°	190.6	194.0	197.4	199.5	200.3	201.2	202.0	202.9
77.5°	160.1	163.9	167.6	169.8	170.4	171.1	171.8	172.5
80°	141.9	145.6	149.3	151.5	152.2	152.9	153.6	154.2
82.5°	124.6	128.2	131.8	134.2	135.4	136.6	137.8	139.0
85°	100.9	104.6	108.3	110.8	112.2	113.5	114.9	116.2
87.5°	85.3	89.4	93.5	96.2	97.5	98.9	100.2	101.5
90°	88.5	93.5	98.5	101.9	103.8	105.7	107.5	109.4
92.5°	85.8	90.7	95.5	98.7	100.2	101.7	103.2	104.7
95°	81.3	86.2	91.0	94.0	95.2	96.4	97.6	98.7
97.5°	95.8	93.0	90.3	89.4	90.6	91.7	92.9	94.0
100°	164.7	134.8	104.8	89.9	90.0	90.2	90.3	90.4
102.5°	264.9	261.9	259.0	250.4	236.1	221.9	207.6	193.3
105°	349.9	353.3	356.7	358.9	359.8	360.8	361.7	362.7
107.5°	426.4	429.8	433.2	435.1	435.4	435.8	436.2	436.6
110°	475.7	478.2	480.7	482.7	484.1	485.5	486.9	488.3





TEST NUMBER: P333384

CATALOG NUMBER: S125DIW-S610D1050U835-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	524.4	526.6	528.8	530.4	531.2	532.1	533.0	533.8
115°	598.3	600.4	602.5	603.4	603.1	602.8	602.4	602.1
117.5°	669.2	670.9	672.6	673.7	674.3	674.8	675.4	676.0
120°	715.1	717.5	720.0	721.1	721.0	720.9	720.8	720.7
122.5°	758.5	760.8	763.1	764.1	763.8	763.5	763.2	762.9
125°	822.1	823.9	825.7	826.7	826.8	827.0	827.2	827.4
127.5°	879.7	881.7	883.7	884.3	883.7	883.0	882.3	881.6
130°	917.7	919.4	921.1	921.8	921.5	921.2	920.9	920.6
132.5°	952.7	955.0	957.2	958.1	957.7	957.3	956.9	956.4
135°	1003.7	1005.5	1007.2	1007.9	1007.4	1006.9	1006.3	1005.8
137.5°	1051.9	1053.9	1056.0	1056.8	1056.3	1055.8	1055.3	1054.8
140°	1081.2	1083.5	1085.8	1086.7	1086.0	1085.3	1084.6	1084.0
142.5°	1110.3	1112.0	1113.7	1114.2	1113.5	1112.8	1112.1	1111.5
145°	1152.1	1153.1	1154.2	1154.4	1153.7	1153.1	1152.4	1151.7
147.5°	1188.2	1188.8	1189.3	1188.9	1187.6	1186.3	1185.0	1183.7
150°	1211.5	1212.0	1212.4	1211.8	1210.2	1208.6	1206.9	1205.3
152.5°	1232.5	1233.0	1233.4	1232.9	1231.3	1229.7	1228.1	1226.5
155°	1261.5	1262.2	1262.9	1262.3	1260.5	1258.7	1256.9	1255.1
157.5°	1285.5	1286.2	1286.9	1286.4	1284.6	1282.8	1281.0	1279.2
160°	1300.4	1301.3	1302.2	1301.7	1300.0	1298.2	1296.4	1294.6
162.5°	1314.1	1315.3	1316.6	1316.2	1314.2	1312.3	1310.3	1308.3
165°	1331.6	1333.0	1334.3	1334.1	1332.3	1330.5	1328.7	1326.9
167.5°	1344.9	1346.5	1348.2	1348.0	1345.9	1343.9	1341.9	1339.9
170°	1351.8	1353.6	1355.4	1355.2	1353.2	1351.2	1349.2	1347.1
172.5°	1357.1	1358.7	1360.3	1360.1	1358.1	1356.0	1354.0	1352.0
175°	1362.9	1364.7	1366.5	1366.4	1364.3	1362.3	1360.3	1358.3
177.5°	1365.2	1366.5	1367.8	1367.7	1366.2	1364.8	1363.4	1361.9
180°	1364.3	1364.3	1364.3	1364.3	1364.3	1364.3	1364.3	1364.3

(END OF REPORT)