

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: P333373-935

Luminaire Tested: **S125DIW-S610D470U935-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333373-935  
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: S125DIW-S610D470U935-4F0-1E-UDD-D1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 470 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3467.1 lumens  
Efficiency: N/A  
Efficacy: 114.8 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: General Diffuse

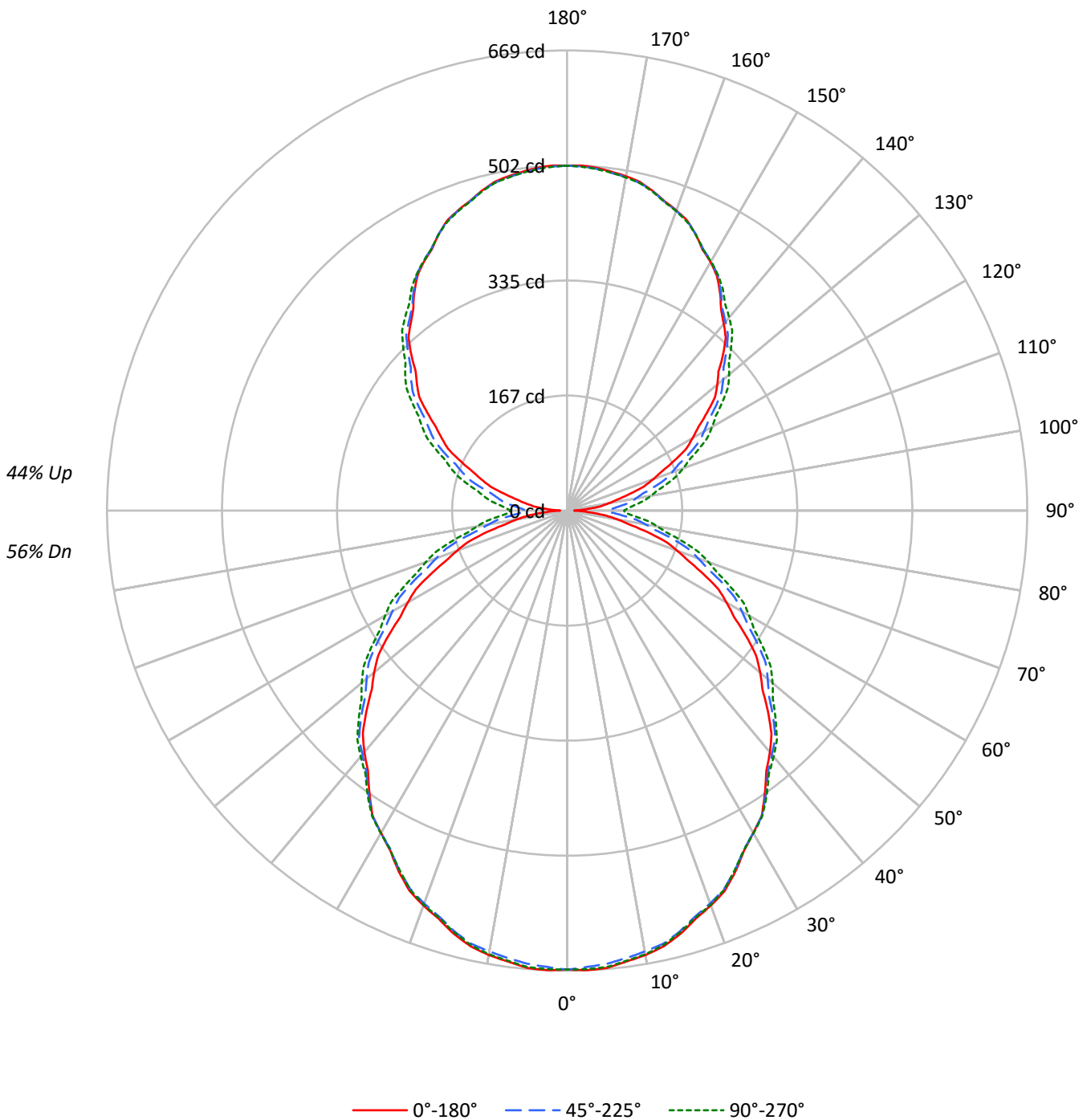
Input Watts (W): 30.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333373-935

CATALOG NUMBER: S125DIW-S610D470U935-4F0-1E-UDD-D1

### Luminous Intensity Polar Plot





TEST NUMBER: P333373-935

CATALOG NUMBER: S125DIW-S610D470U935-4F0-1E-UDD-D1

**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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	56
1	98	94	89	85	91	87	83	80	75	72	69	64	62	60	53	52	50	45
2	89	81	75	69	82	76	70	65	65	61	57	55	52	49	46	44	42	37
3	81	71	63	57	75	66	59	54	57	52	47	49	45	41	41	38	35	31
4	74	63	55	48	68	59	51	46	51	45	40	43	39	35	36	33	30	27
5	68	56	47	41	63	52	45	39	45	39	35	39	34	30	33	29	26	23
6	63	50	42	36	58	47	39	34	41	35	30	35	30	26	30	26	23	20
7	58	45	37	31	54	42	35	30	37	31	26	32	27	23	27	23	20	18
8	54	41	33	28	50	38	31	26	34	28	23	29	24	21	25	21	18	16
9	50	37	30	25	46	35	28	23	31	25	21	27	22	19	23	19	16	14
10	47	34	27	22	43	32	26	21	28	23	19	25	20	17	21	17	15	13

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

	0°	45°	90°
0°	4310	4310	4310
5°	4318	4229	4243
10°	4288	4154	4148
15°	4236	4064	4027
20°	4168	3952	3906
25°	4086	3833	3757
30°	3987	3701	3622
35°	3894	3580	3497
40°	3800	3452	3372
45°	3693	3344	3261
50°	3592	3225	3163
55°	3469	3114	3048
60°	3336	2986	2931
65°	3196	2854	2799
70°	3036	2672	2663
75°	2788	2496	2496
80°	2461	2284	2314
85°	2155	2142	2255



TEST NUMBER: P333373-935

CATALOG NUMBER: S125DIW-S610D470U935-4F0-1E-UDD-D1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.1	1.8
10°-20°	179.1	5.2
20°-30°	266.4	7.7
30°-40°	315.5	9.1
40°-50°	326.2	9.4
50°-60°	300.5	8.7
60°-70°	242.9	7.0
70°-80°	162.7	4.7
80°-90°	85.5	2.5
90°-100°	80.9	2.3
100°-110°	134.1	3.9
110°-120°	191.4	5.5
120°-130°	234.4	6.8
130°-140°	253.5	7.3
140°-150°	244.0	7.0
150°-160°	203.9	5.9
160°-170°	135.6	3.9
170°-180°	47.4	1.4
0°-30°	508.6	14.7
0°-40°	824.1	23.8
0°-60°	1450.8	41.8
0°-90°	1941.9	56.0
90°-120°	406.4	11.7
90°-150°	1138.3	32.8
90°-180°	1525.0	44.0
0°-180°	3467.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	667	667	667	667	667	
5°	667	666	661	666	666	63
15°	637	638	633	637	635	179
25°	579	581	577	579	576	266
35°	501	505	504	506	506	313
45°	413	420	423	428	428	318
55°	317	328	338	345	348	284
65°	218	234	249	259	262	217
75°	120	138	158	171	175	128
85°	36	58	80	94	100	38
90°	11	35	60	76	83	8
95°	34	52	78	94	100	34
105°	95	108	129	144	150	101
115°	172	179	196	207	211	170
125°	248	250	263	273	276	222
135°	321	322	327	335	337	247
145°	387	388	389	393	394	242
155°	443	443	443	444	443	204
165°	481	480	481	482	480	136
175°	500	499	499	501	498	48
180°	501	501	501	501	501	



TEST NUMBER: P333373-935

CATALOG NUMBER: S125DIW-S610D470U935-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	667.3	667.3	667.3	667.3	667.3	667.3	667.3	667.3	667.3	667.3	667.3
2.5°	668.8	668.6	668.4	668.1	667.9	667.4	666.6	665.7	665.0	664.1	665.0
5°	667.3	666.9	666.7	666.4	666.1	665.5	664.4	663.4	662.4	661.3	662.5
7.5°	661.3	661.2	661.2	661.0	660.9	660.3	659.3	658.2	657.2	656.2	657.1
10°	656.2	656.2	656.2	656.2	656.2	655.6	654.4	653.2	652.0	650.9	651.9
12.5°	648.8	648.9	649.0	649.2	649.3	648.8	647.9	647.0	646.1	645.1	645.9
15°	637.1	637.3	637.5	637.6	637.7	637.3	636.3	635.2	634.3	633.3	634.1
17.5°	622.0	622.2	622.6	622.8	623.2	622.8	621.8	620.8	619.7	618.7	619.4
20°	611.0	611.3	611.6	611.9	612.2	611.8	610.8	609.8	608.7	607.7	608.1
22.5°	598.5	599.0	599.5	600.0	600.5	600.2	599.1	598.0	596.8	595.7	596.2
25°	578.9	579.4	579.8	580.2	580.7	580.5	579.6	578.8	577.8	577.0	577.6
27.5°	557.2	557.8	558.5	559.1	559.8	559.6	558.6	557.7	556.6	555.7	556.0
30°	541.0	541.9	542.8	543.6	544.5	544.5	543.6	542.8	541.9	541.0	541.3
32.5°	526.3	527.1	527.9	528.7	529.3	529.4	528.8	528.1	527.5	526.8	527.2
35°	501.1	502.1	503.2	504.1	505.1	505.5	505.1	504.5	504.1	503.7	504.1
37.5°	475.9	476.8	477.7	478.6	479.6	479.9	479.8	479.7	479.5	479.4	479.9
40°	458.6	459.8	460.9	462.1	463.2	463.7	463.6	463.5	463.3	463.1	463.7
42.5°	439.7	441.3	442.7	444.3	445.8	446.7	447.0	447.4	447.6	448.0	448.7
45°	412.8	414.4	415.9	417.6	419.2	420.3	421.1	421.8	422.5	423.3	424.3
47.5°	385.2	386.7	388.1	389.6	391.2	392.4	393.7	394.9	396.2	397.4	399.0
50°	366.4	367.9	369.5	371.2	372.7	374.4	375.9	377.5	379.1	380.7	382.4
52.5°	346.5	348.4	350.3	352.3	354.2	356.2	358.2	360.1	362.1	363.9	365.7
55°	317.3	319.6	321.9	324.3	326.6	328.9	331.2	333.6	335.9	338.2	339.8
57.5°	287.5	290.2	293.0	295.8	298.6	301.4	304.0	306.7	309.4	312.0	313.8
60°	267.6	270.4	273.4	276.3	279.2	282.1	285.0	287.9	290.8	293.7	295.9
62.5°	248.2	251.1	254.0	256.9	259.8	262.9	266.0	269.1	272.2	275.4	277.8
65°	218.5	221.9	225.2	228.5	231.9	235.3	238.8	242.3	245.7	249.3	251.4
67.5°	190.5	193.7	196.9	200.2	203.4	206.8	210.3	213.9	217.4	221.0	223.6
70°	170.0	173.4	176.8	180.1	183.5	187.0	190.8	194.6	198.4	202.2	204.9
72.5°	150.2	153.7	157.1	160.6	164.0	167.8	171.9	176.1	180.2	184.3	187.4
75°	120.4	124.2	127.9	131.7	135.5	139.7	144.4	149.0	153.7	158.3	161.2
77.5°	91.7	96.1	100.5	104.8	109.2	113.6	118.0	122.5	127.0	131.5	134.7
80°	74.0	78.3	82.7	87.0	91.4	96.0	101.0	105.9	110.8	115.8	119.0
82.5°	57.7	62.3	66.9	71.5	76.1	80.9	85.9	91.0	96.1	101.2	104.2
85°	36.0	40.8	45.5	50.4	55.2	60.1	65.2	70.3	75.3	80.5	83.7
87.5°	20.5	25.3	30.0	34.9	39.7	44.6	49.7	54.7	59.8	64.8	68.3
90°	10.8	16.2	21.5	26.9	32.2	37.7	43.2	48.8	54.3	59.9	63.6
92.5°	18.9	23.7	28.4	33.2	38.1	43.3	49.2	54.9	60.7	66.6	70.3
95°	33.8	37.8	41.8	45.7	49.7	54.6	60.4	66.2	72.0	77.8	81.6
97.5°	49.9	53.3	56.8	60.3	63.7	68.4	74.4	80.4	86.4	92.3	95.9
100°	61.8	64.9	67.9	70.9	74.0	78.4	84.2	90.0	95.8	101.6	105.4
102.5°	74.7	77.9	81.1	84.2	87.4	91.5	96.6	101.8	106.9	111.9	115.7
105°	94.9	97.6	100.4	103.1	105.9	109.7	114.6	119.5	124.3	129.2	132.7
107.5°	117.2	119.6	122.0	124.4	126.8	130.4	134.9	139.5	144.0	148.7	151.8
110°	132.6	134.7	136.9	139.1	141.3	144.6	148.9	153.2	157.6	161.9	164.9



TEST NUMBER: P333373-935

CATALOG NUMBER: S125DIW-S610D470U935-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	148.8	150.4	152.1	153.7	155.3	158.3	162.6	166.8	171.1	175.4	178.1
115°	172.1	173.5	174.9	176.2	177.5	180.2	184.2	188.1	192.1	196.0	198.5
117.5°	195.5	196.3	197.2	197.9	198.8	201.0	204.8	208.5	212.2	216.0	218.5
120°	210.5	211.4	212.2	213.1	214.0	216.1	219.6	223.0	226.4	229.8	232.3
122.5°	226.2	226.5	227.0	227.3	227.6	229.5	233.0	236.4	239.9	243.3	245.6
125°	248.1	248.5	248.8	249.2	249.6	251.2	254.3	257.3	260.3	263.2	265.4
127.5°	270.9	271.0	271.1	271.3	271.5	272.8	275.3	277.8	280.3	282.7	284.7
130°	284.9	285.2	285.4	285.8	286.0	287.3	289.5	291.7	293.9	296.1	298.1
132.5°	298.4	299.1	299.8	300.5	301.2	302.2	303.8	305.3	306.9	308.4	310.3
135°	320.6	320.9	321.2	321.7	322.0	322.8	323.9	324.9	326.1	327.2	329.1
137.5°	341.3	341.7	342.1	342.5	342.9	343.4	344.1	344.7	345.4	346.1	347.9
140°	354.2	354.6	355.1	355.5	355.9	356.4	356.8	357.1	357.6	358.0	359.7
142.5°	367.6	367.9	368.2	368.3	368.6	368.9	369.3	369.6	370.0	370.4	371.9
145°	387.4	387.6	387.8	388.0	388.2	388.4	388.7	388.9	389.2	389.4	390.2
147.5°	405.0	405.2	405.4	405.5	405.8	406.0	406.1	406.4	406.6	406.8	407.3
150°	417.2	417.1	417.0	416.9	416.8	417.0	417.3	417.7	418.0	418.4	418.4
152.5°	427.1	427.3	427.4	427.5	427.7	427.7	427.9	428.1	428.2	428.3	428.5
155°	442.6	442.6	442.6	442.6	442.6	442.6	442.6	442.7	442.8	442.9	443.2
157.5°	456.2	456.1	455.9	455.7	455.5	455.5	455.6	455.6	455.7	455.8	456.2
160°	464.4	464.2	463.8	463.6	463.3	463.2	463.3	463.4	463.5	463.6	464.0
162.5°	471.6	471.4	471.2	471.0	470.8	470.7	470.7	470.7	470.8	470.8	471.2
165°	481.1	481.0	480.8	480.6	480.4	480.4	480.5	480.6	480.7	480.8	481.1
167.5°	489.3	489.0	488.6	488.3	487.9	487.8	487.8	487.8	487.8	487.8	488.3
170°	493.6	493.3	492.9	492.6	492.2	492.1	492.1	492.1	492.1	492.1	492.6
172.5°	496.8	496.5	496.1	495.8	495.4	495.2	495.2	495.2	495.2	495.2	495.8
175°	500.3	499.9	499.6	499.2	498.9	498.7	498.7	498.7	498.7	498.7	499.2
177.5°	502.0	501.8	501.5	501.3	500.9	500.8	500.8	500.7	500.6	500.5	500.9
180°	501.4	501.4	501.4	501.4	501.4	501.4	501.4	501.4	501.4	501.4	501.4



TEST NUMBER: P333373-935

CATALOG NUMBER: S125DIW-S610D470U935-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	667.3	667.3	667.3	667.3	667.3	667.3	667.3	667.3
2.5°	665.7	666.6	667.4	667.7	667.6	667.5	667.4	667.3
5°	663.7	664.9	666.0	666.5	666.4	666.2	666.1	666.0
7.5°	658.1	659.2	660.2	660.6	660.5	660.4	660.2	660.0
10°	653.0	653.9	655.0	655.4	655.3	655.1	655.0	654.8
12.5°	646.7	647.5	648.3	648.5	648.1	647.7	647.4	647.0
15°	635.0	635.8	636.7	636.9	636.3	635.7	635.2	634.6
17.5°	620.1	620.7	621.4	621.6	621.2	620.9	620.5	620.2
20°	608.6	609.1	609.5	609.7	609.7	609.7	609.7	609.7
22.5°	596.8	597.4	597.9	598.0	597.6	597.3	596.9	596.6
25°	578.2	578.8	579.3	579.3	578.5	577.8	577.0	576.4
27.5°	556.5	556.9	557.3	557.3	557.1	556.8	556.6	556.3
30°	541.6	541.9	542.2	542.3	542.1	541.9	541.8	541.7
32.5°	527.4	527.7	528.1	528.1	528.0	527.8	527.7	527.5
35°	504.5	505.1	505.5	505.7	505.7	505.7	505.7	505.7
37.5°	480.5	481.1	481.7	482.0	481.9	481.8	481.8	481.7
40°	464.3	464.9	465.5	465.9	466.2	466.5	466.8	467.1
42.5°	449.4	450.0	450.7	451.2	451.3	451.3	451.3	451.4
45°	425.2	426.3	427.3	427.9	428.1	428.2	428.3	428.5
47.5°	400.5	401.9	403.4	404.3	404.7	404.9	405.3	405.6
50°	383.9	385.6	387.1	388.1	388.6	389.0	389.4	389.9
52.5°	367.4	369.1	370.8	371.9	372.2	372.5	372.8	373.2
55°	341.4	343.0	344.6	345.7	346.3	346.9	347.4	348.0
57.5°	315.7	317.5	319.3	320.5	321.0	321.4	321.8	322.3
60°	298.1	300.2	302.5	303.8	304.2	304.6	305.1	305.5
62.5°	280.3	282.7	285.1	286.5	287.1	287.7	288.2	288.8
65°	253.6	255.8	258.0	259.3	259.9	260.5	261.1	261.7
67.5°	226.3	228.9	231.5	233.2	234.0	234.8	235.6	236.3
70°	207.7	210.4	213.2	215.0	215.9	216.7	217.7	218.5
72.5°	190.4	193.3	196.3	198.1	198.8	199.4	200.1	200.7
75°	164.1	167.0	170.0	171.8	172.5	173.2	173.9	174.7
77.5°	137.8	141.1	144.3	146.2	146.7	147.3	147.9	148.5
80°	122.2	125.4	128.5	130.4	131.0	131.6	132.2	132.8
82.5°	107.3	110.4	113.5	115.5	116.6	117.6	118.6	119.7
85°	86.9	90.1	93.2	95.4	96.6	97.7	98.9	100.0
87.5°	71.7	75.2	78.5	80.8	81.9	82.9	84.0	85.1
90°	67.4	71.2	75.0	77.5	78.8	80.1	81.4	82.7
92.5°	74.1	77.9	81.7	84.2	85.4	86.6	87.8	89.0
95°	85.4	89.2	93.0	95.5	96.7	97.9	99.1	100.3
97.5°	99.6	103.2	106.9	109.2	110.3	111.4	112.4	113.6
100°	109.3	113.0	116.9	119.3	120.4	121.4	122.5	123.6
102.5°	119.5	123.3	127.1	129.6	130.7	131.8	132.9	134.1
105°	136.1	139.6	142.9	145.3	146.6	147.8	149.1	150.4
107.5°	155.0	158.1	161.2	163.2	164.1	165.0	165.9	166.8
110°	167.9	170.9	173.9	175.9	176.8	177.8	178.7	179.7





TEST NUMBER: P333373-935

CATALOG NUMBER: S125DIW-S610D470U935-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	180.9	183.7	186.5	188.3	189.2	190.0	190.9	191.7
115°	201.1	203.6	206.2	207.8	208.6	209.4	210.2	210.9
117.5°	221.1	223.6	226.2	227.7	228.4	229.0	229.7	230.3
120°	234.8	237.3	239.7	241.3	241.8	242.3	242.8	243.3
122.5°	248.0	250.2	252.5	253.9	254.5	255.1	255.7	256.3
125°	267.5	269.7	271.8	273.3	273.9	274.5	275.2	275.8
127.5°	286.8	288.9	290.9	292.3	293.0	293.7	294.4	295.0
130°	300.1	302.0	303.9	305.1	305.7	306.3	306.9	307.4
132.5°	312.3	314.3	316.2	317.4	317.7	318.1	318.5	318.8
135°	331.0	332.9	334.8	335.9	336.2	336.7	337.0	337.4
137.5°	349.7	351.6	353.4	354.4	354.6	354.7	354.8	355.0
140°	361.5	363.3	365.1	366.0	366.2	366.4	366.4	366.6
142.5°	373.3	374.8	376.3	377.0	377.2	377.4	377.5	377.6
145°	390.9	391.7	392.4	392.9	393.2	393.6	393.8	394.2
147.5°	407.7	408.1	408.5	408.6	408.3	407.9	407.6	407.3
150°	418.4	418.4	418.4	418.4	418.3	418.3	418.3	418.2
152.5°	428.8	429.0	429.1	429.1	428.9	428.5	428.3	428.0
155°	443.6	443.9	444.3	444.3	443.8	443.4	443.0	442.6
157.5°	456.5	456.8	457.2	457.1	456.5	455.9	455.4	454.8
160°	464.3	464.7	465.0	464.9	464.5	464.1	463.6	463.2
162.5°	471.7	472.0	472.4	472.4	471.9	471.4	470.9	470.4
165°	481.5	481.8	482.2	482.1	481.6	481.0	480.5	480.0
167.5°	488.8	489.3	489.8	489.8	489.2	488.7	488.2	487.7
170°	493.1	493.6	494.2	494.1	493.5	492.9	492.3	491.7
172.5°	496.3	496.8	497.3	497.3	496.7	496.2	495.7	495.2
175°	499.7	500.3	500.8	500.8	500.2	499.6	498.9	498.3
177.5°	501.4	501.8	502.2	502.1	501.7	501.2	500.7	500.2
180°	501.4	501.4	501.4	501.4	501.4	501.4	501.4	501.4

(END OF REPORT)