

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: P333374-927

Luminaire Tested: **S125DIW-S610D470U927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333374-927  
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-S610D470U927-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 470 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3465.3 lumens  
Efficiency: N/A  
Efficacy: 114.7 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: General Diffuse

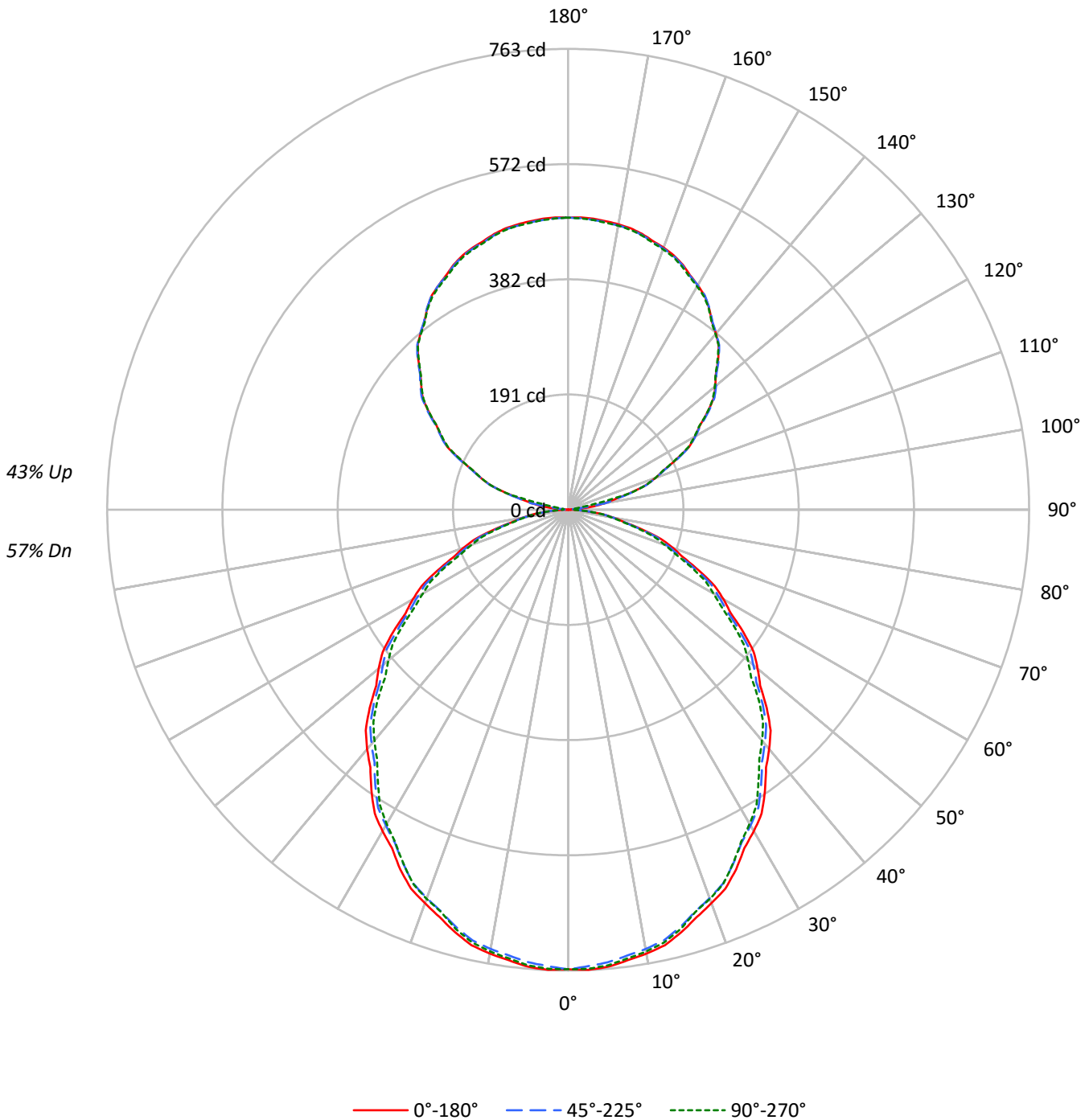
Input Watts (W): 30.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333374-927

CATALOG NUMBER: S125DIW-S610D470U927-4F0-1E-UDD-F

### Luminous Intensity Polar Plot





TEST NUMBER: P333374-927

CATALOG NUMBER: S125DIW-S610D470U927-4F0-1E-UDD-F

**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	63	63	63	57
1	99	95	91	87	92	88	85	82	76	74	72	65	64	62	55	54	53	48
2	90	83	77	71	84	77	72	67	67	63	59	57	54	52	49	46	44	40
3	82	73	65	59	76	68	61	56	59	54	50	51	47	44	43	40	38	34
4	75	64	56	50	70	60	53	48	52	47	42	45	41	37	38	35	33	29
5	69	57	49	43	64	54	46	41	47	41	37	41	36	32	35	31	28	25
6	64	52	43	37	59	48	41	36	42	36	32	37	32	28	31	28	25	22
7	59	47	39	33	55	44	36	31	38	33	28	33	29	25	29	25	22	20
8	55	42	34	29	51	40	33	28	35	29	25	31	26	22	26	23	20	18
9	51	39	31	26	48	36	30	25	32	26	22	28	24	20	24	21	18	16
10	48	36	28	23	44	34	27	22	30	24	20	26	22	18	23	19	16	14

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

	0°	45°	90°
0°	4914	4914	4914
5°	4924	4877	4909
10°	4894	4844	4871
15°	4841	4785	4805
20°	4766	4704	4712
25°	4684	4606	4603
30°	4583	4502	4480
35°	4475	4389	4328
40°	4364	4268	4207
45°	4244	4156	4074
50°	4112	4022	3900
55°	3985	3869	3762
60°	3834	3716	3584
65°	3651	3533	3412
70°	3478	3320	3206
75°	3169	3064	2959
80°	2819	2775	2708
85°	2453	2497	2364



TEST NUMBER: P333374-927

CATALOG NUMBER: S125DIW-S610D470U927-4F0-1E-UDD-F

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.7	2.1
10°-20°	202.6	5.8
20°-30°	299.2	8.6
30°-40°	349.1	10.1
40°-50°	350.6	10.1
50°-60°	307.8	8.9
60°-70°	229.3	6.6
70°-80°	131.1	3.8
80°-90°	39.2	1.1
90°-100°	17.6	0.5
100°-110°	108.3	3.1
110°-120°	196.4	5.7
120°-130°	252.0	7.3
130°-140°	271.1	7.8
140°-150°	254.4	7.3
150°-160°	205.8	5.9
160°-170°	133.1	3.8
170°-180°	45.9	1.3
0°-30°	573.6	16.6
0°-40°	922.7	26.6
0°-60°	1581.1	45.6
0°-90°	1980.7	57.2
90°-120°	322.2	9.3
90°-150°	1099.7	31.7
90°-180°	1485.0	42.9
0°-180°	3465.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	761	761	761	761	761	
5°	760	758	752	757	757	72
15°	724	722	716	719	719	204
25°	657	654	646	648	646	302
35°	568	565	557	554	549	355
45°	465	462	455	448	446	358
55°	354	352	344	338	334	316
65°	239	237	231	226	223	237
75°	127	126	123	121	119	135
85°	33	34	34	33	32	37
90°	0	3	6	8	9	3
95°	20	19	6	7	8	26
105°	105	107	107	107	106	112
115°	198	200	200	198	196	196
125°	281	284	284	282	281	251
135°	351	353	352	351	349	270
145°	407	407	408	408	406	254
155°	448	446	447	447	445	206
165°	473	471	471	473	470	133
175°	484	481	482	484	481	46
180°	484	484	484	484	484	



TEST NUMBER: P333374-927

CATALOG NUMBER: S125DIW-S610D470U927-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	760.8	760.8	760.8	760.8	760.8	760.8	760.8	760.8	760.8	760.8	760.8
2.5°	762.7	762.4	762.1	761.8	761.4	760.7	759.7	758.6	757.6	756.5	757.6
5°	759.6	759.3	759.1	758.8	758.5	757.7	756.4	755.0	753.7	752.3	753.6
7.5°	752.6	752.3	752.1	751.8	751.5	750.7	749.2	747.7	746.2	744.8	745.9
10°	746.3	746.1	745.8	745.5	745.3	744.4	742.9	741.5	740.0	738.6	739.6
12.5°	738.6	738.2	737.7	737.2	736.7	735.8	734.4	733.1	731.7	730.3	731.2
15°	724.1	723.7	723.3	722.9	722.5	721.5	720.1	718.6	717.1	715.7	716.3
17.5°	707.3	706.8	706.2	705.6	705.0	703.9	702.4	700.8	699.3	697.8	698.6
20°	693.4	693.1	692.8	692.6	692.3	691.3	689.6	687.9	686.1	684.4	685.3
22.5°	679.4	678.9	678.4	677.9	677.5	676.4	674.8	673.2	671.5	669.9	670.5
25°	657.3	656.6	655.9	655.3	654.6	653.4	651.6	649.9	648.2	646.4	646.7
27.5°	631.4	631.0	630.6	630.2	629.8	628.7	626.9	625.1	623.3	621.5	621.5
30°	614.5	614.1	613.7	613.3	612.9	611.7	609.7	607.7	605.7	603.7	603.4
32.5°	596.2	595.6	595.0	594.4	593.7	592.6	590.8	589.0	587.2	585.4	584.9
35°	567.6	567.0	566.5	566.0	565.5	564.3	562.4	560.5	558.6	556.7	556.1
37.5°	537.8	537.2	536.5	535.8	535.2	533.9	532.2	530.4	528.6	526.9	525.9
40°	517.6	517.0	516.3	515.6	514.9	513.7	511.8	509.9	508.0	506.2	505.0
42.5°	496.0	495.4	494.8	494.2	493.7	492.5	490.6	488.8	486.9	485.0	483.9
45°	464.7	464.1	463.6	463.0	462.6	461.4	459.9	458.3	456.6	455.0	453.4
47.5°	430.9	430.9	431.0	431.0	431.0	430.1	428.2	426.3	424.4	422.4	420.8
50°	409.3	408.8	408.4	408.1	407.7	406.7	405.0	403.5	401.9	400.3	398.5
52.5°	387.1	386.8	386.6	386.3	386.0	384.9	383.3	381.5	379.9	378.1	376.6
55°	353.9	353.5	353.1	352.7	352.3	351.2	349.3	347.5	345.5	343.6	342.5
57.5°	318.9	318.7	318.5	318.2	318.1	317.1	315.5	313.9	312.4	310.9	309.3
60°	296.8	296.2	295.6	295.1	294.6	293.6	292.2	290.7	289.1	287.7	286.4
62.5°	273.6	273.2	272.7	272.4	271.9	271.1	269.8	268.5	267.3	266.0	264.6
65°	238.9	238.7	238.4	238.1	237.9	237.0	235.5	234.1	232.6	231.2	229.9
67.5°	205.3	204.8	204.2	203.7	203.1	202.3	201.2	200.1	199.0	197.9	196.9
70°	184.2	183.5	182.8	182.2	181.5	180.5	179.4	178.2	177.0	175.8	174.9
72.5°	161.1	160.6	160.2	159.7	159.2	158.6	157.9	157.1	156.3	155.5	154.6
75°	127.0	126.7	126.4	126.2	126.0	125.5	124.8	124.1	123.4	122.8	122.4
77.5°	95.6	95.5	95.4	95.2	95.1	94.9	94.5	94.2	93.8	93.4	93.2
80°	75.8	75.8	75.8	75.8	75.8	75.7	75.4	75.2	74.9	74.6	74.5
82.5°	58.5	58.3	58.1	57.8	57.7	57.5	57.4	57.4	57.4	57.3	57.0
85°	33.1	33.3	33.4	33.5	33.7	33.7	33.7	33.7	33.7	33.7	33.6
87.5°	13.1	13.2	13.3	13.5	13.5	13.6	13.6	13.6	13.6	13.7	13.8
90°	0.4	1.0	1.7	2.3	2.9	3.5	4.0	4.6	5.1	5.7	6.1
92.5°	5.5	5.1	4.6	4.2	3.7	3.7	4.3	4.8	5.2	5.7	6.1
95°	20.4	20.2	20.0	19.7	19.5	17.8	14.8	11.8	8.8	5.7	6.1
97.5°	42.6	43.1	43.5	44.0	44.4	41.6	35.6	29.6	23.6	17.7	15.4
100°	59.8	60.1	60.4	60.6	60.8	61.1	61.4	61.7	62.0	62.3	50.5
102.5°	77.3	77.6	78.0	78.3	78.6	78.8	79.0	79.1	79.4	79.5	77.3
105°	105.4	105.7	106.0	106.3	106.6	106.8	106.8	106.8	106.8	106.8	106.8
107.5°	134.4	134.4	134.4	134.4	134.4	134.5	134.7	134.8	135.0	135.1	135.2
110°	153.4	153.4	153.4	153.4	153.4	153.4	153.6	153.8	153.9	154.1	153.8



TEST NUMBER: P333374-927

CATALOG NUMBER: S125DIW-S610D470U927-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	171.2	171.3	171.5	171.7	171.9	172.1	172.1	172.3	172.4	172.5	172.1
115°	197.8	198.2	198.6	199.0	199.4	199.6	199.7	199.8	199.9	199.9	199.6
117.5°	225.5	225.4	225.4	225.4	225.4	225.5	225.8	226.1	226.4	226.7	226.3
120°	242.6	242.6	242.5	242.4	242.3	242.4	242.6	242.9	243.1	243.4	243.2
122.5°	257.9	258.1	258.4	258.7	259.0	259.2	259.4	259.4	259.6	259.7	259.5
125°	281.3	281.9	282.4	283.0	283.5	283.8	283.8	283.8	283.8	283.8	283.5
127.5°	303.7	304.2	304.6	305.0	305.4	305.5	305.5	305.5	305.4	305.3	305.1
130°	317.5	317.9	318.3	318.7	319.1	319.3	319.4	319.5	319.6	319.6	319.4
132.5°	331.3	331.8	332.2	332.6	333.1	333.3	333.1	333.0	332.7	332.6	332.6
135°	350.9	351.3	351.8	352.3	352.8	352.9	352.8	352.6	352.4	352.3	352.1
137.5°	368.8	369.2	369.6	370.1	370.5	370.7	370.5	370.3	370.2	370.0	370.1
140°	380.6	380.7	380.9	381.0	381.2	381.3	381.2	381.1	381.0	381.0	381.1
142.5°	391.2	391.3	391.4	391.5	391.6	391.7	391.8	391.9	392.1	392.1	392.1
145°	406.8	406.9	407.1	407.3	407.4	407.5	407.5	407.5	407.5	407.5	407.6
147.5°	420.4	420.3	420.3	420.3	420.3	420.3	420.4	420.5	420.6	420.6	420.7
150°	429.0	428.8	428.6	428.5	428.3	428.3	428.5	428.6	428.8	429.0	429.1
152.5°	437.3	437.0	436.6	436.3	435.9	435.8	435.9	436.1	436.3	436.4	436.6
155°	448.0	447.5	447.0	446.6	446.1	445.9	446.1	446.2	446.4	446.6	446.8
157.5°	456.2	455.9	455.7	455.3	455.0	455.0	455.0	455.0	455.0	455.0	455.3
160°	461.9	461.4	461.0	460.5	460.0	459.9	459.9	460.0	460.1	460.2	460.5
162.5°	466.5	466.0	465.6	465.1	464.6	464.5	464.5	464.6	464.7	464.8	465.2
165°	472.7	472.2	471.7	471.3	470.8	470.6	470.6	470.7	470.8	470.9	471.3
167.5°	477.3	476.8	476.3	475.8	475.3	475.1	475.2	475.2	475.3	475.4	476.0
170°	479.9	479.3	478.7	478.2	477.6	477.4	477.4	477.5	477.6	477.7	478.3
172.5°	481.6	481.0	480.5	479.9	479.3	479.2	479.3	479.4	479.6	479.7	480.3
175°	483.5	483.0	482.5	482.0	481.6	481.3	481.4	481.5	481.6	481.6	482.3
177.5°	484.3	483.9	483.5	483.2	482.8	482.6	482.7	482.8	482.8	482.9	483.3
180°	483.5	483.5	483.5	483.5	483.5	483.5	483.5	483.5	483.5	483.5	483.5



TEST NUMBER: P333374-927

CATALOG NUMBER: S125DIW-S610D470U927-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	760.8	760.8	760.8	760.8	760.8	760.8	760.8	760.8
2.5°	758.6	759.7	760.7	761.2	761.1	761.0	760.9	760.8
5°	754.8	756.0	757.2	757.7	757.6	757.5	757.3	757.2
7.5°	747.1	748.3	749.5	750.0	749.9	749.7	749.6	749.5
10°	740.7	741.7	742.8	743.3	743.1	743.0	742.8	742.8
12.5°	732.1	732.9	733.7	734.2	734.1	734.1	734.1	734.0
15°	717.0	717.6	718.4	718.7	718.7	718.7	718.7	718.7
17.5°	699.5	700.3	701.2	701.2	700.5	699.9	699.3	698.5
20°	686.2	687.1	688.1	688.2	687.5	686.9	686.2	685.6
22.5°	671.1	671.8	672.4	672.5	672.0	671.5	671.1	670.7
25°	647.0	647.2	647.5	647.5	647.1	646.7	646.3	645.9
27.5°	621.6	621.7	621.7	621.5	621.2	620.8	620.4	620.0
30°	603.2	602.9	602.6	602.3	601.9	601.5	601.1	600.7
32.5°	584.5	583.9	583.4	582.9	582.2	581.5	580.7	580.0
35°	555.4	554.8	554.1	553.2	552.2	551.0	550.0	548.9
37.5°	524.9	523.9	522.9	522.1	521.5	520.9	520.3	519.7
40°	503.7	502.6	501.4	500.6	500.2	499.8	499.4	499.0
42.5°	482.8	481.7	480.6	479.7	479.1	478.6	477.9	477.3
45°	451.8	450.2	448.6	447.6	447.2	446.8	446.4	446.0
47.5°	419.1	417.5	415.9	414.6	413.7	412.7	411.8	410.8
50°	396.8	395.1	393.3	392.0	391.0	390.1	389.1	388.2
52.5°	375.0	373.5	372.0	370.7	369.7	368.6	367.6	366.5
55°	341.3	340.1	338.9	337.8	336.8	335.9	335.0	334.1
57.5°	307.7	306.2	304.6	303.6	303.1	302.5	302.1	301.6
60°	285.0	283.7	282.3	281.2	280.3	279.3	278.4	277.5
62.5°	263.2	261.7	260.2	259.2	258.5	257.7	257.0	256.3
65°	228.7	227.5	226.3	225.5	224.9	224.3	223.9	223.3
67.5°	195.9	194.9	193.8	193.1	192.8	192.5	192.2	191.9
70°	174.1	173.3	172.5	171.9	171.3	170.8	170.2	169.8
72.5°	153.7	152.8	151.9	151.1	150.6	150.1	149.6	149.0
75°	122.0	121.6	121.2	120.7	120.2	119.6	119.1	118.6
77.5°	92.9	92.7	92.4	92.1	91.7	91.4	91.0	90.6
80°	74.4	74.2	74.1	73.9	73.6	73.4	73.1	72.8
82.5°	56.8	56.6	56.3	56.2	56.2	56.1	56.0	56.0
85°	33.4	33.3	33.2	33.0	32.7	32.4	32.2	31.9
87.5°	13.9	13.9	14.0	13.9	13.8	13.6	13.5	13.3
90°	6.5	6.9	7.3	7.7	7.9	8.2	8.4	8.6
92.5°	6.5	6.9	7.3	7.6	7.7	7.8	7.9	8.0
95°	6.5	6.9	7.3	7.5	7.5	7.5	7.5	7.5
97.5°	13.2	10.9	8.6	7.5	7.5	7.5	7.5	7.5
100°	38.7	26.8	14.9	8.8	8.5	8.2	7.8	7.5
102.5°	75.1	72.8	70.6	66.8	61.3	55.9	50.5	45.1
105°	106.8	106.8	106.8	106.8	106.7	106.6	106.5	106.5
107.5°	135.2	135.2	135.2	135.1	134.9	134.7	134.4	134.2
110°	153.6	153.4	153.1	153.0	153.1	153.2	153.3	153.4





TEST NUMBER: P333374-927

CATALOG NUMBER: S125DIW-S610D470U927-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	171.8	171.5	171.3	171.0	171.0	170.8	170.7	170.6
115°	199.3	199.0	198.7	198.3	197.8	197.3	196.9	196.4
117.5°	225.9	225.5	225.1	224.7	224.5	224.3	224.1	223.9
120°	243.0	242.9	242.7	242.4	242.0	241.6	241.2	240.8
122.5°	259.4	259.2	259.0	258.7	258.3	257.8	257.4	256.9
125°	283.2	282.9	282.6	282.3	282.0	281.8	281.5	281.3
127.5°	305.0	304.8	304.7	304.3	303.6	303.1	302.5	301.9
130°	319.2	318.9	318.7	318.4	318.0	317.6	317.2	316.8
132.5°	332.5	332.4	332.4	332.2	331.8	331.4	331.0	330.6
135°	352.0	351.8	351.6	351.3	350.9	350.4	349.9	349.4
137.5°	370.1	370.2	370.2	370.0	369.6	369.2	368.8	368.4
140°	381.3	381.4	381.6	381.4	381.0	380.5	380.0	379.5
142.5°	392.2	392.2	392.3	392.1	391.6	391.1	390.6	390.1
145°	407.7	407.7	407.8	407.6	407.1	406.6	406.2	405.7
147.5°	420.9	421.0	421.0	420.8	420.3	419.7	419.1	418.5
150°	429.3	429.4	429.6	429.4	428.7	428.1	427.5	426.8
152.5°	436.7	436.9	437.0	436.9	436.3	435.7	435.1	434.6
155°	447.0	447.3	447.5	447.3	446.6	446.0	445.4	444.7
157.5°	455.5	455.7	456.0	455.8	455.2	454.6	453.9	453.3
160°	460.8	461.1	461.4	461.3	460.7	460.0	459.4	458.8
162.5°	465.6	466.1	466.5	466.4	465.7	465.0	464.3	463.6
165°	471.9	472.4	472.9	472.8	472.1	471.4	470.8	470.2
167.5°	476.6	477.1	477.7	477.7	476.9	476.2	475.5	474.8
170°	479.0	479.7	480.3	480.2	479.5	478.8	478.1	477.4
172.5°	480.9	481.4	482.0	482.0	481.3	480.5	479.8	479.1
175°	482.9	483.5	484.2	484.2	483.5	482.8	482.0	481.3
177.5°	483.8	484.2	484.7	484.7	484.1	483.6	483.1	482.6
180°	483.5	483.5	483.5	483.5	483.5	483.5	483.5	483.5

(END OF REPORT)