

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: P333373-830

Luminaire Tested: **S125DIW-S610D470U830-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333373-830  
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-S610D470U830-4F0-1E-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: 3795.5 lumens  
Efficiency: N/A  
Efficacy: 125.7 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

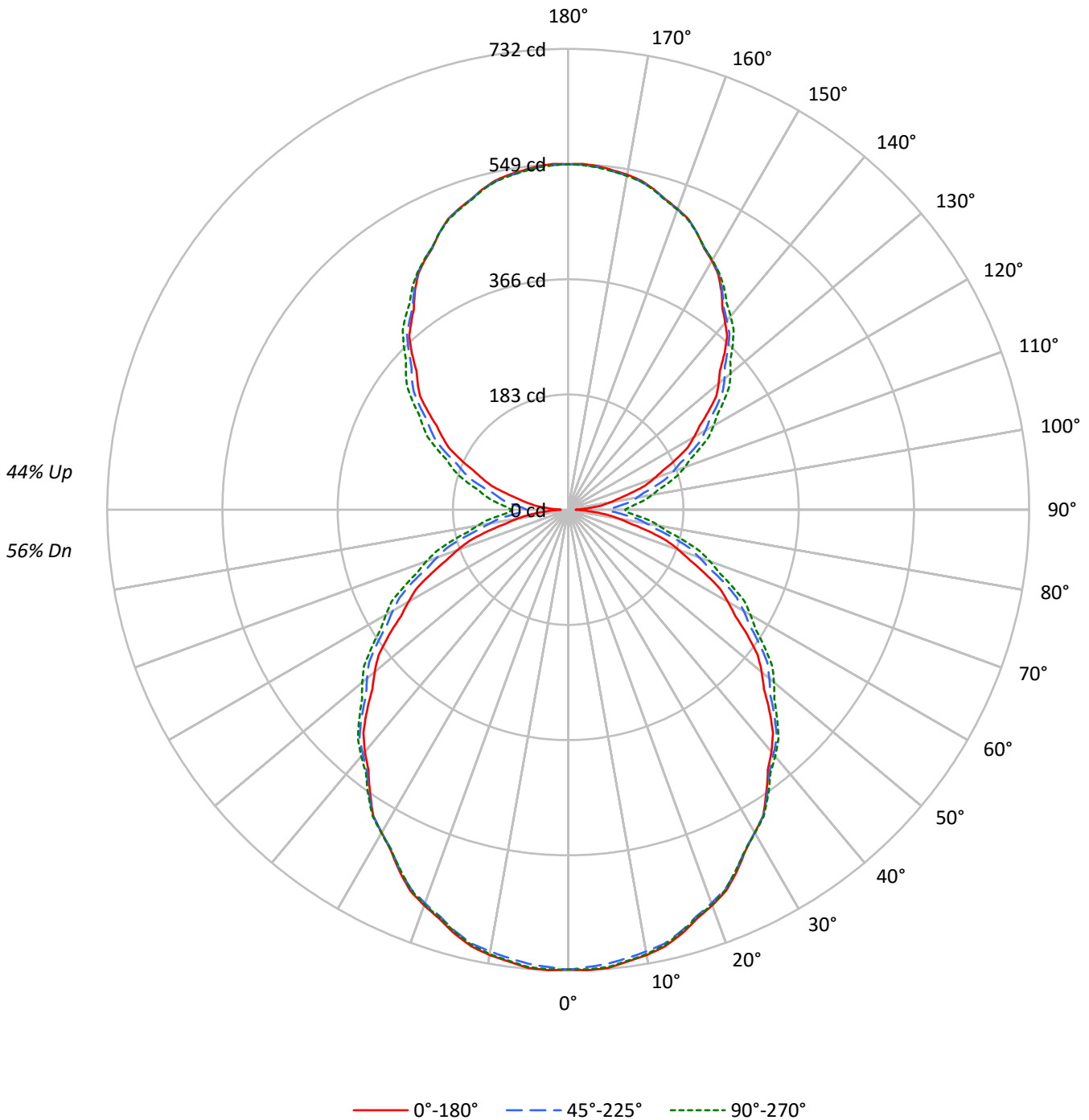
Input Watts (W): 30.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333373-830

CATALOG NUMBER: S125DIW-S610D470U830-4F0-1E-UDD-D1

### 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	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°	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



TEST NUMBER: P333373-830

CATALOG NUMBER: S125DIW-S610D470U830-4F0-1E-UDD-D1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.1	1.8
10°-20°	196.1	5.2
20°-30°	291.6	7.7
30°-40°	345.4	9.1
40°-50°	357.1	9.4
50°-60°	329.0	8.7
60°-70°	265.9	7.0
70°-80°	178.1	4.7
80°-90°	93.6	2.5
90°-100°	88.6	2.3
100°-110°	146.8	3.9
110°-120°	209.5	5.5
120°-130°	256.6	6.8
130°-140°	277.5	7.3
140°-150°	267.1	7.0
150°-160°	223.3	5.9
160°-170°	148.4	3.9
170°-180°	51.9	1.4
0°-30°	556.7	14.7
0°-40°	902.2	23.8
0°-60°	1588.2	41.8
0°-90°	2125.8	56.0
90°-120°	444.9	11.7
90°-150°	1246.1	32.8
90°-180°	1670.0	44.0
0°-180°	3795.5	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	38	66	83	90	9
95°	37	57	85	103	110	37
105°	104	118	142	158	165	111
115°	188	196	215	227	231	186
125°	272	274	288	298	302	243
135°	351	353	358	367	369	270
145°	424	425	426	430	432	265
155°	484	484	485	486	484	223
165°	527	526	526	528	526	149
175°	548	546	546	548	546	52
180°	549	549	549	549	549	



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CATALOG NUMBER: S125DIW-S610D470U830-4F0-1E-UDD-D1

**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°	22.4	27.7	32.9	38.2	43.5	48.8	54.4	59.9	65.4	71.0	74.7
90°	11.9	17.7	23.6	29.4	35.3	41.3	47.3	53.4	59.5	65.6	69.7
92.5°	20.6	25.9	31.1	36.4	41.7	47.4	53.8	60.1	66.4	72.9	77.0
95°	37.0	41.4	45.7	50.0	54.4	59.8	66.1	72.5	78.8	85.2	89.4
97.5°	54.6	58.3	62.2	66.0	69.7	74.9	81.4	88.0	94.5	101.0	105.0
100°	67.7	71.1	74.4	77.7	81.1	85.9	92.2	98.5	104.9	111.2	115.4
102.5°	81.8	85.3	88.8	92.2	95.7	100.2	105.8	111.4	117.0	122.5	126.7
105°	103.9	106.9	109.9	112.9	115.9	120.1	125.5	130.8	136.1	141.5	145.2
107.5°	128.3	130.9	133.6	136.2	138.8	142.7	147.7	152.7	157.7	162.8	166.2
110°	145.2	147.5	149.9	152.3	154.7	158.3	163.0	167.7	172.5	177.2	180.5



TEST NUMBER: P333373-830

CATALOG NUMBER: S125DIW-S610D470U830-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	162.9	164.7	166.5	168.2	170.0	173.2	178.0	182.6	187.3	192.0	195.0
115°	188.4	189.9	191.4	192.9	194.4	197.3	201.6	205.9	210.3	214.6	217.4
117.5°	214.1	214.9	215.8	216.7	217.6	220.1	224.2	228.3	232.3	236.5	239.2
120°	230.5	231.4	232.3	233.3	234.2	236.6	240.3	244.1	247.9	251.6	254.3
122.5°	247.6	248.0	248.5	248.8	249.2	251.3	255.1	258.8	262.6	266.4	268.9
125°	271.5	272.0	272.4	272.8	273.2	275.0	278.3	281.6	284.9	288.1	290.5
127.5°	296.5	296.6	296.8	297.0	297.2	298.6	301.3	304.1	306.8	309.4	311.7
130°	311.9	312.2	312.5	312.8	313.1	314.5	316.9	319.3	321.8	324.1	326.3
132.5°	326.7	327.4	328.2	328.9	329.7	330.8	332.5	334.2	335.9	337.6	339.7
135°	350.9	351.3	351.7	352.1	352.5	353.4	354.6	355.7	356.9	358.2	360.2
137.5°	373.6	374.1	374.5	374.9	375.3	375.9	376.6	377.4	378.1	378.9	380.9
140°	387.8	388.2	388.7	389.2	389.6	390.1	390.6	391.0	391.4	391.9	393.8
142.5°	402.5	402.7	403.0	403.2	403.5	403.9	404.3	404.6	405.0	405.5	407.1
145°	424.0	424.3	424.5	424.7	425.0	425.2	425.5	425.7	426.0	426.3	427.2
147.5°	443.4	443.6	443.7	443.9	444.2	444.4	444.6	444.9	445.1	445.4	445.8
150°	456.7	456.6	456.5	456.4	456.3	456.5	456.9	457.2	457.6	458.0	458.0
152.5°	467.6	467.8	467.9	468.0	468.2	468.3	468.4	468.6	468.7	468.9	469.1
155°	484.5	484.5	484.5	484.5	484.5	484.5	484.6	484.7	484.7	484.8	485.2
157.5°	499.5	499.3	499.1	498.9	498.6	498.6	498.7	498.8	498.9	499.0	499.4
160°	508.4	508.1	507.7	507.5	507.2	507.1	507.2	507.3	507.4	507.5	507.9
162.5°	516.2	516.0	515.9	515.6	515.4	515.3	515.3	515.3	515.4	515.4	515.9
165°	526.7	526.5	526.3	526.1	525.9	525.9	526.0	526.1	526.2	526.3	526.7
167.5°	535.6	535.3	534.9	534.5	534.1	534.0	534.0	534.0	534.0	534.0	534.5
170°	540.4	540.0	539.6	539.2	538.9	538.7	538.7	538.7	538.7	538.7	539.2
172.5°	543.8	543.5	543.1	542.7	542.3	542.2	542.2	542.2	542.2	542.2	542.7
175°	547.7	547.2	546.9	546.5	546.1	545.9	545.9	545.9	545.9	545.9	546.5
177.5°	549.6	549.3	549.0	548.7	548.4	548.2	548.2	548.1	548.0	547.9	548.4
180°	548.9	548.9	548.9	548.9	548.9	548.9	548.9	548.9	548.9	548.9	548.9



TEST NUMBER: P333373-830

CATALOG NUMBER: S125DIW-S610D470U830-4F0-1E-UDD-D1

**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°	78.5	82.3	86.0	88.5	89.6	90.8	92.0	93.1
90°	73.8	77.9	82.1	84.8	86.2	87.7	89.1	90.5
92.5°	81.2	85.3	89.4	92.2	93.5	94.8	96.1	97.5
95°	93.5	97.6	101.8	104.5	105.8	107.2	108.5	109.8
97.5°	109.1	113.0	117.0	119.5	120.7	122.0	123.1	124.3
100°	119.6	123.8	128.0	130.6	131.8	132.9	134.1	135.3
102.5°	130.8	135.0	139.1	141.9	143.1	144.3	145.5	146.8
105°	149.0	152.8	156.5	159.1	160.5	161.8	163.2	164.7
107.5°	169.7	173.1	176.4	178.7	179.6	180.6	181.6	182.6
110°	183.8	187.1	190.4	192.6	193.6	194.6	195.7	196.7





TEST NUMBER: P333373-830

CATALOG NUMBER: S125DIW-S610D470U830-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	198.0	201.0	204.2	206.1	207.1	208.0	209.0	209.9
115°	220.2	222.9	225.7	227.5	228.4	229.2	230.1	230.9
117.5°	242.0	244.8	247.6	249.3	250.1	250.7	251.5	252.1
120°	257.0	259.8	262.4	264.1	264.7	265.2	265.8	266.4
122.5°	271.5	273.9	276.4	278.0	278.6	279.3	279.9	280.6
125°	292.8	295.2	297.6	299.2	299.8	300.5	301.2	301.9
127.5°	314.0	316.2	318.5	320.0	320.7	321.5	322.3	322.9
130°	328.5	330.5	332.7	334.0	334.7	335.3	335.9	336.5
132.5°	341.9	344.0	346.1	347.4	347.8	348.2	348.6	349.0
135°	362.3	364.4	366.5	367.7	368.1	368.5	368.9	369.4
137.5°	382.9	384.9	386.9	388.0	388.1	388.3	388.4	388.6
140°	395.8	397.8	399.6	400.7	400.9	401.1	401.1	401.3
142.5°	408.7	410.3	411.9	412.7	412.9	413.1	413.2	413.4
145°	427.9	428.8	429.5	430.1	430.5	430.8	431.1	431.5
147.5°	446.3	446.8	447.2	447.3	447.0	446.6	446.2	445.8
150°	458.0	458.0	458.0	458.0	457.9	457.9	457.9	457.8
152.5°	469.4	469.6	469.8	469.8	469.5	469.1	468.8	468.5
155°	485.6	486.0	486.4	486.4	485.9	485.4	484.9	484.5
157.5°	499.7	500.1	500.5	500.4	499.7	499.1	498.5	497.9
160°	508.3	508.7	509.1	509.0	508.5	508.0	507.6	507.1
162.5°	516.3	516.7	517.2	517.2	516.6	516.0	515.5	514.9
165°	527.1	527.4	527.8	527.7	527.2	526.6	526.0	525.5
167.5°	535.1	535.6	536.2	536.2	535.6	535.0	534.4	533.9
170°	539.8	540.4	541.0	540.9	540.3	539.6	538.9	538.3
172.5°	543.3	543.8	544.4	544.4	543.8	543.2	542.6	542.1
175°	547.1	547.7	548.3	548.2	547.5	546.9	546.2	545.5
177.5°	548.8	549.3	549.8	549.7	549.2	548.7	548.1	547.6
180°	548.9	548.9	548.9	548.9	548.9	548.9	548.9	548.9

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