

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: P333378-830

Luminaire Tested: **S125DIW-S610D770U830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333378-830  
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-S610D770U830-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 770 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5157.5 lumens  
Efficiency: N/A  
Efficacy: 137.2 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

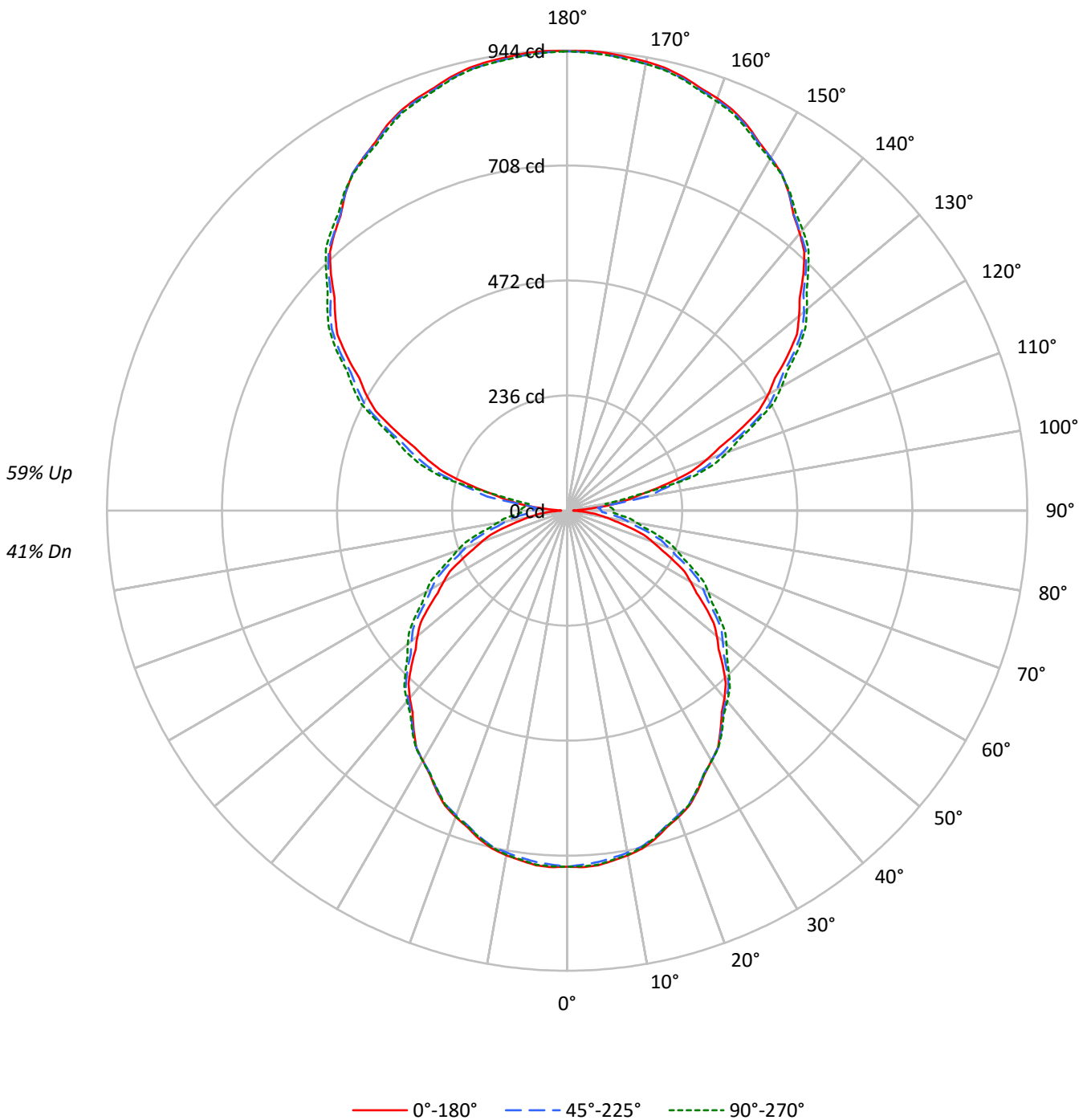
Input Watts (W): 37.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	105	105	105	105	96	96	96	96	78	78	78	63	63	63	48	48	48	41
1	95	91	87	83	87	83	79	76	68	65	63	54	52	51	41	40	39	33
2	86	79	72	67	78	72	67	62	59	55	52	47	44	42	36	34	33	28
3	79	69	62	56	71	63	57	51	52	47	43	41	38	35	32	30	28	23
4	72	61	53	47	65	56	49	43	46	41	37	37	33	30	28	26	24	20
5	66	54	46	40	60	50	42	37	41	36	31	33	29	26	25	23	20	17
6	61	48	40	34	55	44	37	32	37	31	27	30	26	22	23	20	18	15
7	56	44	36	30	51	40	33	28	33	28	24	27	23	20	21	18	16	13
8	52	40	32	26	47	36	29	25	30	25	21	25	21	18	19	16	14	12
9	48	36	29	23	44	33	26	22	28	22	19	23	19	16	18	15	13	10
10	45	33	26	21	41	30	24	20	25	20	17	21	17	14	16	14	12	9

**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	1.3
10°-20°	196.1	3.8
20°-30°	291.6	5.7
30°-40°	345.4	6.7
40°-50°	357.1	6.9
50°-60°	329.0	6.4
60°-70°	265.9	5.2
70°-80°	178.1	3.5
80°-90°	94.3	1.8
90°-100°	86.1	1.7
100°-110°	249.2	4.8
110°-120°	408.3	7.9
120°-130°	505.7	9.8
130°-140°	534.6	10.4
140°-150°	497.1	9.6
150°-160°	401.1	7.8
160°-170°	259.4	5.0
170°-180°	89.5	1.7
0°-30°	556.7	10.8
0°-40°	902.2	17.5
0°-60°	1588.2	30.8
0°-90°	2126.6	41.2
90°-120°	743.6	14.4
90°-150°	2281.0	44.2
90°-180°	3031.0	58.8
0°-180°	5157.5	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	41	70	89	97	9
95°	49	65	63	82	88	58
105°	212	226	248	261	266	224
115°	390	399	418	427	428	386
125°	551	556	570	578	580	492
135°	685	689	692	700	700	528
145°	793	794	794	798	797	496
155°	873	869	870	872	867	402
165°	921	917	918	921	916	260
175°	942	938	939	944	938	90
180°	942	942	942	942	942	



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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	27.8	33.2	38.5	43.8	49.3	55.0	60.6	66.3	71.8	75.7
90°	12.2	18.5	24.8	31.2	37.5	43.9	50.4	56.9	63.4	69.9	74.4
92.5°	21.1	24.9	28.7	32.6	36.5	41.6	48.1	54.6	61.1	67.6	71.9
95°	49.1	52.8	56.5	60.1	63.8	65.4	64.9	64.5	63.9	63.4	67.8
97.5°	91.5	96.1	100.7	105.3	109.8	108.9	102.5	96.0	89.5	83.0	82.0
100°	124.5	128.3	132.1	135.9	139.8	144.5	150.2	155.9	161.6	167.4	147.6
102.5°	158.0	161.7	165.4	169.1	172.8	177.2	182.6	187.9	193.2	198.6	197.5
105°	211.8	214.9	218.1	221.3	224.4	228.4	233.2	238.0	242.7	247.5	250.7
107.5°	267.6	269.8	271.9	274.1	276.3	279.8	284.7	289.5	294.5	299.4	302.6
110°	304.0	305.9	307.7	309.6	311.6	314.9	319.7	324.4	329.2	333.9	336.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	338.6	340.4	342.3	344.3	346.2	349.4	353.9	358.4	362.9	367.4	369.8
115°	389.8	391.7	393.6	395.5	397.4	400.5	404.7	409.1	413.3	417.6	419.9
117.5°	442.9	443.6	444.3	445.0	445.6	448.3	452.8	457.3	461.8	466.3	468.2
120°	476.4	476.7	477.0	477.4	477.7	479.9	484.0	488.1	492.3	496.4	498.8
122.5°	505.4	506.2	507.1	507.8	508.7	511.0	514.7	518.5	522.2	525.9	528.2
125°	551.1	552.0	553.0	553.8	554.8	556.9	560.1	563.3	566.4	569.6	571.6
127.5°	594.1	594.7	595.3	596.0	596.5	598.1	600.7	603.1	605.7	608.2	610.2
130°	620.9	621.5	622.2	622.7	623.4	624.9	627.3	629.6	632.1	634.4	636.2
132.5°	647.1	648.0	648.9	649.8	650.6	651.8	653.2	654.5	655.9	657.2	659.4
135°	685.1	685.9	686.7	687.5	688.2	689.0	689.8	690.6	691.4	692.2	694.0
137.5°	720.1	720.8	721.4	722.1	722.8	723.3	723.5	723.8	724.1	724.3	726.2
140°	742.4	742.7	743.0	743.4	743.7	743.8	743.9	743.9	743.9	743.9	745.9
142.5°	763.1	763.2	763.2	763.3	763.3	763.5	763.7	763.9	764.2	764.5	766.0
145°	793.4	793.5	793.7	793.8	794.0	794.1	794.1	794.1	794.1	794.1	795.0
147.5°	819.3	819.2	819.1	819.1	819.0	819.1	819.3	819.4	819.5	819.7	820.2
150°	835.9	835.7	835.4	835.0	834.7	834.7	835.0	835.4	835.7	835.9	836.3
152.5°	852.2	851.5	850.8	850.2	849.4	849.2	849.6	849.9	850.2	850.5	850.8
155°	873.0	872.0	871.1	870.2	869.3	868.9	869.3	869.6	869.9	870.2	870.6
157.5°	889.0	888.5	888.0	887.4	886.8	886.6	886.6	886.6	886.6	886.6	887.2
160°	900.2	899.3	898.3	897.4	896.5	896.1	896.3	896.5	896.5	896.7	897.4
162.5°	909.2	908.2	907.3	906.3	905.4	905.0	905.2	905.4	905.5	905.7	906.5
165°	921.1	920.2	919.4	918.4	917.5	917.1	917.2	917.4	917.6	917.7	918.6
167.5°	930.1	929.2	928.2	927.3	926.2	925.9	926.0	926.1	926.3	926.5	927.6
170°	935.2	934.1	932.9	931.9	930.8	930.3	930.5	930.7	930.8	930.9	932.2
172.5°	938.5	937.5	936.3	935.2	934.2	933.8	934.1	934.3	934.6	934.9	935.9
175°	942.2	941.2	940.3	939.3	938.4	938.0	938.2	938.3	938.5	938.7	939.9
177.5°	943.8	943.0	942.4	941.6	940.8	940.5	940.7	940.8	940.8	941.0	941.9
180°	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2



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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°	79.5	83.3	87.1	89.6	90.9	92.0	93.2	94.4
90°	78.8	83.2	87.7	90.7	92.3	93.8	95.4	97.0
92.5°	76.3	80.5	84.8	87.7	89.0	90.3	91.6	93.0
95°	72.0	76.3	80.6	83.2	84.4	85.5	86.6	87.8
97.5°	81.0	79.9	78.9	79.0	80.0	81.2	82.2	83.2
100°	127.8	108.0	88.2	78.5	78.8	79.2	79.5	79.8
102.5°	196.2	195.1	194.0	188.5	179.0	169.4	159.8	150.1
105°	253.8	257.0	260.2	262.3	263.3	264.2	265.2	266.2
107.5°	305.8	309.0	312.1	314.0	314.5	315.0	315.6	316.0
110°	339.1	341.7	344.2	346.1	347.4	348.6	350.0	351.2





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CATALOG NUMBER: S125DIW-S610D770U830-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	372.0	374.4	376.6	378.2	379.2	380.0	381.0	381.8
115°	422.2	424.3	426.6	427.7	427.7	427.8	427.8	427.8
117.5°	470.0	472.0	473.9	475.1	475.9	476.5	477.2	477.9
120°	501.2	503.6	506.0	507.3	507.5	507.7	507.8	508.0
122.5°	530.5	532.7	535.0	536.2	536.2	536.3	536.4	536.4
125°	573.4	575.3	577.3	578.4	578.7	579.1	579.4	579.8
127.5°	612.3	614.3	616.2	617.2	616.9	616.7	616.5	616.2
130°	637.9	639.7	641.5	642.3	642.3	642.4	642.4	642.4
132.5°	661.6	663.6	665.8	666.8	666.8	666.6	666.5	666.4
135°	695.8	697.5	699.3	700.1	699.9	699.8	699.6	699.6
137.5°	728.2	730.1	732.1	732.9	732.8	732.6	732.4	732.3
140°	747.9	750.0	752.1	752.9	752.6	752.3	752.1	751.8
142.5°	767.6	769.1	770.7	771.3	771.0	770.7	770.4	770.2
145°	796.0	796.9	797.9	798.2	797.9	797.6	797.3	797.0
147.5°	820.7	821.0	821.5	821.3	820.5	819.6	818.9	818.0
150°	836.6	836.9	837.3	836.8	835.8	834.6	833.6	832.5
152.5°	851.1	851.4	851.8	851.4	850.3	849.1	848.1	847.0
155°	871.1	871.6	872.0	871.7	870.4	869.2	868.0	866.7
157.5°	887.7	888.2	888.6	888.3	887.0	885.8	884.6	883.4
160°	898.0	898.6	899.2	898.9	897.7	896.5	895.2	893.9
162.5°	907.4	908.2	909.2	908.9	907.6	906.2	904.8	903.4
165°	919.5	920.5	921.4	921.2	920.0	918.8	917.6	916.2
167.5°	928.7	929.8	930.9	930.9	929.4	928.0	926.6	925.2
170°	933.4	934.7	935.9	935.9	934.4	933.0	931.6	930.3
172.5°	937.1	938.2	939.3	939.1	937.8	936.4	935.0	933.6
175°	941.1	942.4	943.6	943.5	942.2	940.8	939.3	937.9
177.5°	942.7	943.6	944.5	944.4	943.4	942.4	941.4	940.5
180°	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2

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