

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: P333181-927

Luminaire Tested: **S125DIP-S610D810U927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333181-927  
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: S125DIP-S610D810U927-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4469.7 lumens  
Efficiency: N/A  
Efficacy: 116.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: Semi-Indirect

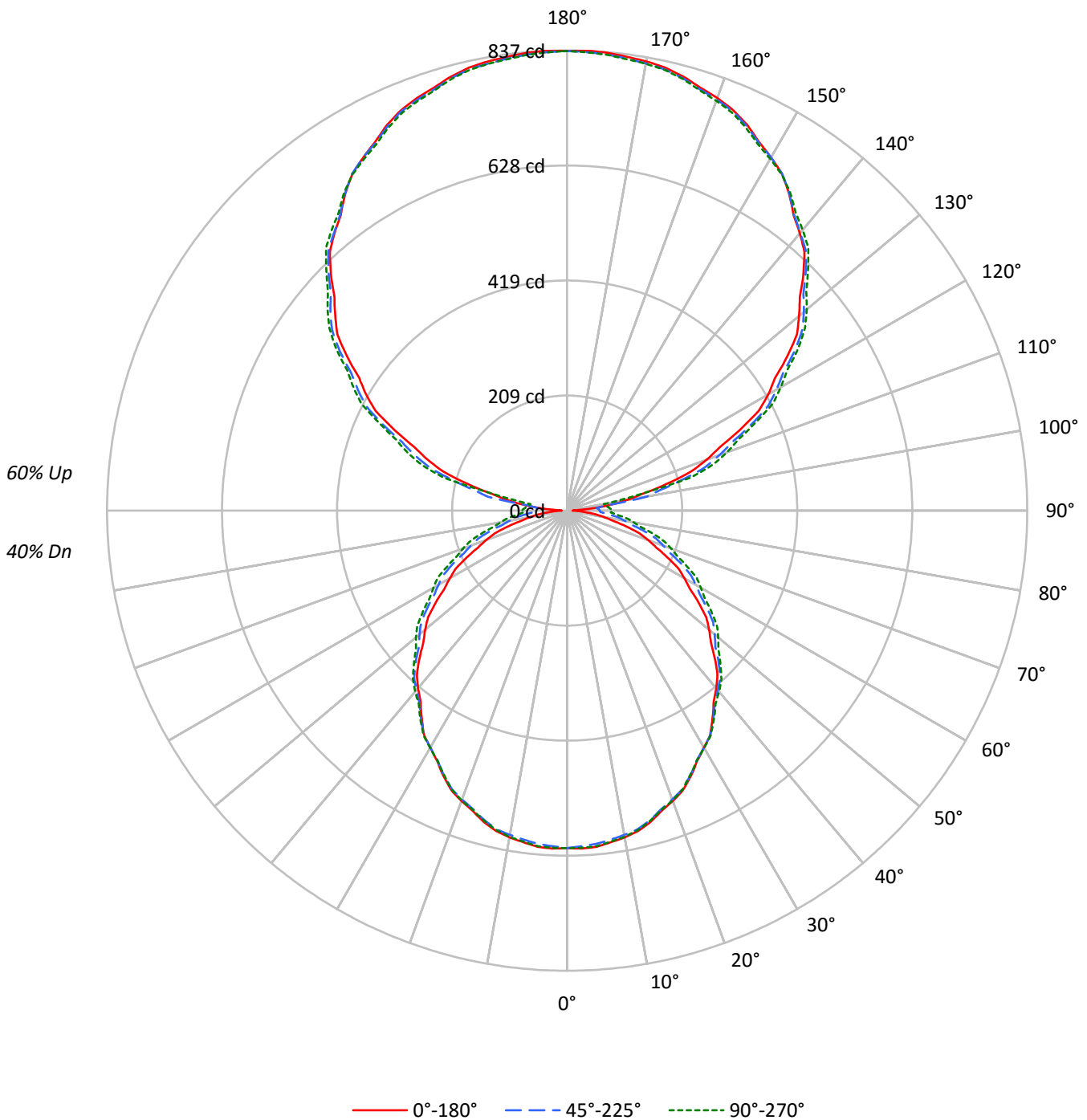
Input Watts (W): 38.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20										
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	50	30	10	50	30	10	0														
RCR																																						
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40																				
1	95	90	86	83	86	82	79	76	67	65	63	53	52	50	41	39	38	32																				
2	86	79	72	67	78	72	66	62	59	55	51	46	44	41	35	33	32	27																				
3	78	69	61	56	71	63	56	51	51	47	43	41	38	35	31	29	27	22																				
4	72	61	53	47	65	55	49	43	46	40	36	36	33	30	28	25	23	19																				
5	66	54	46	40	59	49	42	37	41	35	31	32	29	25	25	22	20	16																				
6	60	48	40	34	55	44	37	32	36	31	27	29	25	22	22	20	17	14																				
7	56	43	36	30	51	40	33	28	33	28	24	27	23	20	20	18	15	13																				
8	52	39	32	26	47	36	29	25	30	25	21	24	20	17	19	16	14	11																				
9	48	36	28	23	44	33	26	22	27	22	19	22	18	15	17	14	12	10																				
10	45	33	26	21	41	30	24	19	25	20	17	21	17	14	16	13	11	9																				

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

	0°	45°	90°
0°	3965	3965	3965
5°	3973	3892	3904
10°	3945	3822	3817
15°	3898	3740	3705
20°	3834	3636	3593
25°	3759	3526	3457
30°	3667	3405	3332
35°	3583	3293	3217
40°	3496	3176	3103
45°	3398	3076	3001
50°	3305	2967	2910
55°	3192	2865	2804
60°	3069	2747	2697
65°	2942	2625	2574
70°	2795	2458	2451
75°	2563	2297	2296
80°	2262	2101	2129
85°	1981	1972	2077



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.1	1.3
10°-20°	164.8	3.7
20°-30°	245.1	5.5
30°-40°	290.3	6.5
40°-50°	300.2	6.7
50°-60°	276.5	6.2
60°-70°	223.5	5.0
70°-80°	149.7	3.3
80°-90°	79.4	1.8
90°-100°	73.9	1.7
100°-110°	219.3	4.9
110°-120°	361.0	8.1
120°-130°	447.9	10.0
130°-140°	473.9	10.6
140°-150°	440.9	9.9
150°-160°	355.8	8.0
160°-170°	230.1	5.1
170°-180°	79.4	1.8
0°-30°	467.9	10.5
0°-40°	758.2	17.0
0°-60°	1334.9	29.9
0°-90°	1787.4	40.0
90°-120°	654.2	14.6
90°-150°	2017.0	45.1
90°-180°	2682.0	60.0
0°-180°	4469.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	614	614	614	614	614	
5°	614	613	608	613	613	58
15°	586	587	583	586	584	165
25°	533	534	531	533	530	245
35°	461	465	463	465	465	288
45°	380	386	389	393	394	293
55°	292	302	311	318	320	261
65°	201	215	229	238	241	199
75°	111	127	146	157	161	117
85°	33	53	74	87	92	35
90°	10	34	59	76	82	8
95°	43	56	54	70	74	51
105°	188	200	218	229	233	199
115°	346	353	369	377	377	342
125°	489	493	504	511	513	436
135°	608	611	614	620	620	468
145°	704	704	704	708	707	440
155°	774	771	772	773	769	357
165°	817	814	814	817	813	231
175°	836	832	833	837	832	80
180°	836	836	836	836	836	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	613.9	613.9	613.9	613.9	613.9	613.9	613.9	613.9	613.9	613.9	613.9
2.5°	615.4	615.1	615.0	614.7	614.5	614.0	613.3	612.5	611.8	611.0	611.8
5°	613.9	613.6	613.4	613.1	612.8	612.3	611.3	610.4	609.4	608.5	609.6
7.5°	608.5	608.4	608.3	608.2	608.1	607.5	606.6	605.6	604.7	603.7	604.6
10°	603.7	603.7	603.7	603.7	603.7	603.2	602.1	601.0	599.9	598.9	599.8
12.5°	597.0	597.1	597.1	597.3	597.4	597.0	596.1	595.3	594.5	593.6	594.3
15°	586.2	586.4	586.5	586.6	586.8	586.4	585.4	584.5	583.6	582.7	583.4
17.5°	572.3	572.5	572.8	573.1	573.4	573.0	572.1	571.2	570.2	569.3	569.9
20°	562.1	562.4	562.7	563.0	563.2	562.9	562.0	561.0	560.1	559.1	559.5
22.5°	550.6	551.1	551.6	552.1	552.5	552.2	551.2	550.2	549.1	548.1	548.6
25°	532.7	533.1	533.5	533.9	534.2	534.1	533.3	532.5	531.6	530.8	531.4
27.5°	512.7	513.3	513.9	514.4	515.1	514.9	514.0	513.1	512.1	511.3	511.6
30°	497.7	498.6	499.4	500.2	501.0	501.0	500.2	499.4	498.6	497.7	498.0
32.5°	484.3	485.0	485.7	486.4	487.0	487.1	486.6	485.9	485.4	484.7	485.1
35°	461.1	462.0	463.0	463.8	464.8	465.1	464.7	464.2	463.8	463.4	463.8
37.5°	437.8	438.7	439.5	440.4	441.2	441.6	441.5	441.3	441.2	441.1	441.6
40°	421.9	423.0	424.1	425.2	426.2	426.7	426.5	426.4	426.3	426.1	426.7
42.5°	404.6	406.0	407.3	408.8	410.2	411.0	411.3	411.6	411.9	412.2	412.8
45°	379.8	381.3	382.7	384.2	385.7	386.7	387.5	388.1	388.7	389.4	390.4
47.5°	354.4	355.8	357.1	358.5	359.9	361.1	362.3	363.4	364.6	365.7	367.1
50°	337.1	338.5	340.0	341.5	342.9	344.4	345.9	347.4	348.8	350.3	351.8
52.5°	318.8	320.5	322.3	324.2	325.9	327.7	329.5	331.3	333.1	334.9	336.4
55°	291.9	294.1	296.2	298.3	300.5	302.6	304.8	306.9	309.0	311.2	312.7
57.5°	264.5	267.0	269.6	272.2	274.7	277.3	279.7	282.2	284.6	287.1	288.8
60°	246.2	248.8	251.5	254.2	256.9	259.5	262.2	264.9	267.6	270.2	272.3
62.5°	228.4	231.0	233.7	236.4	239.1	241.9	244.7	247.6	250.5	253.4	255.6
65°	201.1	204.1	207.2	210.2	213.3	216.5	219.7	222.9	226.1	229.3	231.3
67.5°	175.3	178.2	181.2	184.2	187.1	190.3	193.5	196.8	200.0	203.4	205.7
70°	156.5	159.5	162.6	165.7	168.8	172.1	175.5	179.0	182.5	186.0	188.5
72.5°	138.2	141.4	144.6	147.7	150.9	154.4	158.2	162.0	165.8	169.6	172.4
75°	110.7	114.2	117.7	121.2	124.7	128.6	132.8	137.1	141.4	145.7	148.3
77.5°	84.4	88.4	92.4	96.4	100.4	104.5	108.6	112.7	116.8	121.0	123.9
80°	68.0	72.0	76.0	80.1	84.1	88.3	92.9	97.4	102.0	106.5	109.5
82.5°	53.1	57.3	61.6	65.8	70.0	74.5	79.1	83.7	88.4	93.1	95.9
85°	33.1	37.5	41.9	46.3	50.8	55.3	60.0	64.6	69.3	74.1	77.0
87.5°	18.9	23.4	27.9	32.4	36.9	41.5	46.3	51.0	55.8	60.5	63.7
90°	10.2	15.6	21.0	26.4	31.8	37.2	42.7	48.2	53.8	59.3	63.1
92.5°	18.2	21.4	24.6	27.8	31.0	35.3	40.8	46.3	51.8	57.4	61.0
95°	43.2	46.2	49.3	52.4	55.4	56.6	55.9	55.2	54.5	53.9	57.5
97.5°	80.8	84.7	88.6	92.4	96.3	95.3	89.3	83.3	77.4	71.4	70.3
100°	110.1	113.3	116.5	119.8	122.9	127.0	131.8	136.7	141.5	146.3	128.7
102.5°	139.8	143.0	146.1	149.2	152.3	156.1	160.7	165.1	169.6	174.1	172.9
105°	187.6	190.3	193.0	195.6	198.3	201.7	205.7	209.7	213.7	217.7	220.4
107.5°	237.1	238.9	240.7	242.6	244.4	247.4	251.5	255.6	259.8	263.9	266.6
110°	269.3	271.0	272.6	274.2	275.8	278.6	282.7	286.6	290.7	294.7	296.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	300.1	301.7	303.3	304.9	306.6	309.3	313.1	316.9	320.7	324.5	326.4
115°	345.5	347.2	348.8	350.5	352.1	354.7	358.3	361.9	365.5	369.2	371.1
117.5°	392.7	393.2	393.9	394.4	395.1	397.3	401.1	404.9	408.7	412.5	414.1
120°	422.4	422.7	422.9	423.2	423.5	425.3	428.8	432.4	435.9	439.3	441.3
122.5°	448.2	448.9	449.6	450.4	451.1	453.0	456.1	459.3	462.5	465.6	467.5
125°	488.7	489.6	490.4	491.2	492.0	493.8	496.5	499.2	501.8	504.5	506.1
127.5°	526.9	527.4	528.0	528.5	529.1	530.4	532.6	534.7	536.8	538.9	540.6
130°	550.7	551.3	551.8	552.4	552.9	554.2	556.2	558.3	560.2	562.2	563.7
132.5°	574.0	574.8	575.5	576.3	577.1	578.1	579.2	580.4	581.5	582.7	584.4
135°	607.7	608.4	609.1	609.8	610.5	611.2	611.8	612.5	613.1	613.8	615.3
137.5°	638.7	639.3	639.9	640.6	641.1	641.5	641.7	642.0	642.1	642.4	644.0
140°	658.5	658.8	659.1	659.3	659.7	659.8	659.7	659.7	659.7	659.7	661.5
142.5°	676.8	676.9	677.0	677.1	677.1	677.2	677.5	677.7	677.9	678.1	679.5
145°	703.8	703.9	704.0	704.2	704.3	704.4	704.4	704.4	704.4	704.4	705.2
147.5°	726.7	726.7	726.6	726.5	726.5	726.5	726.7	726.8	727.1	727.2	727.5
150°	741.6	741.3	741.0	740.8	740.5	740.5	740.8	741.0	741.3	741.6	741.9
152.5°	756.0	755.3	754.7	754.2	753.5	753.4	753.6	753.9	754.2	754.5	754.7
155°	774.4	773.6	772.8	771.9	771.1	770.8	771.1	771.3	771.7	771.9	772.3
157.5°	788.6	788.1	787.7	787.2	786.6	786.4	786.5	786.5	786.5	786.6	787.0
160°	798.6	797.7	796.9	796.1	795.3	795.0	795.0	795.2	795.4	795.4	796.0
162.5°	806.5	805.6	804.9	804.0	803.2	802.9	803.0	803.1	803.3	803.4	804.1
165°	817.1	816.3	815.5	814.7	813.8	813.5	813.7	813.8	813.9	814.0	814.9
167.5°	825.1	824.3	823.4	822.5	821.7	821.3	821.4	821.6	821.7	821.9	822.8
170°	829.6	828.5	827.6	826.6	825.7	825.3	825.4	825.5	825.7	825.9	827.0
172.5°	832.5	831.6	830.6	829.7	828.6	828.3	828.5	828.8	829.0	829.3	830.3
175°	835.8	834.9	834.1	833.3	832.4	832.1	832.2	832.3	832.5	832.7	833.8
177.5°	837.3	836.5	835.9	835.3	834.6	834.3	834.4	834.5	834.6	834.7	835.5
180°	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	613.9	613.9	613.9	613.9	613.9	613.9	613.9	613.9
2.5°	612.5	613.3	614.0	614.3	614.3	614.2	614.0	613.9
5°	610.6	611.7	612.8	613.2	613.1	613.0	612.8	612.8
7.5°	605.5	606.5	607.4	607.8	607.7	607.6	607.4	607.3
10°	600.8	601.7	602.6	603.0	602.9	602.8	602.6	602.5
12.5°	595.0	595.7	596.5	596.7	596.3	596.0	595.6	595.2
15°	584.2	585.0	585.8	586.0	585.4	584.9	584.4	583.8
17.5°	570.5	571.1	571.7	571.9	571.6	571.2	570.9	570.6
20°	560.0	560.4	560.8	560.9	560.9	560.9	560.9	560.9
22.5°	549.1	549.6	550.1	550.2	549.9	549.5	549.2	548.9
25°	532.0	532.5	533.0	533.0	532.3	531.6	530.9	530.3
27.5°	512.0	512.4	512.8	512.8	512.5	512.3	512.1	511.8
30°	498.3	498.6	498.8	498.9	498.8	498.6	498.5	498.4
32.5°	485.3	485.5	485.8	485.9	485.8	485.6	485.5	485.4
35°	464.2	464.7	465.1	465.2	465.2	465.2	465.2	465.2
37.5°	442.1	442.7	443.2	443.5	443.4	443.3	443.3	443.2
40°	427.2	427.8	428.3	428.6	429.0	429.2	429.5	429.8
42.5°	413.4	414.1	414.7	415.1	415.2	415.2	415.3	415.3
45°	391.3	392.2	393.2	393.7	393.9	394.0	394.1	394.3
47.5°	368.4	369.8	371.1	372.0	372.3	372.6	372.9	373.2
50°	353.2	354.7	356.2	357.1	357.5	357.9	358.3	358.7
52.5°	338.0	339.6	341.2	342.1	342.5	342.7	343.0	343.3
55°	314.1	315.6	317.0	318.1	318.6	319.2	319.6	320.2
57.5°	290.5	292.2	293.8	294.9	295.3	295.7	296.1	296.5
60°	274.3	276.2	278.3	279.5	279.9	280.3	280.7	281.1
62.5°	257.9	260.1	262.3	263.6	264.1	264.7	265.1	265.7
65°	233.3	235.4	237.3	238.6	239.2	239.7	240.2	240.7
67.5°	208.2	210.6	213.0	214.6	215.3	216.0	216.7	217.4
70°	191.1	193.6	196.1	197.8	198.6	199.4	200.3	201.1
72.5°	175.2	177.8	180.6	182.3	182.9	183.5	184.1	184.7
75°	151.0	153.7	156.4	158.0	158.7	159.4	160.0	160.7
77.5°	126.8	129.8	132.8	134.5	135.0	135.5	136.1	136.7
80°	112.4	115.3	118.3	120.0	120.6	121.1	121.7	122.2
82.5°	98.7	101.6	104.4	106.3	107.3	108.2	109.2	110.1
85°	79.9	82.9	85.8	87.8	88.9	89.9	91.0	92.1
87.5°	66.9	70.1	73.4	75.5	76.4	77.5	78.5	79.5
90°	66.8	70.6	74.3	76.9	78.3	79.6	81.0	82.3
92.5°	64.6	68.3	72.0	74.4	75.5	76.6	77.7	78.9
95°	61.1	64.7	68.4	70.7	71.6	72.6	73.4	74.4
97.5°	69.2	68.2	67.1	67.0	68.0	68.8	69.8	70.7
100°	110.9	93.2	75.5	66.8	67.0	67.3	67.5	67.8
102.5°	171.7	170.6	169.4	164.5	156.0	147.4	138.9	130.3
105°	223.1	225.8	228.4	230.1	230.9	231.8	232.6	233.4
107.5°	269.3	272.0	274.6	276.2	276.6	276.9	277.4	277.8
110°	299.0	301.0	303.2	304.8	305.9	307.0	308.0	309.1





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CATALOG NUMBER: S125DIP-S610D810U927-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	328.3	330.2	332.1	333.4	334.2	334.9	335.6	336.4
115°	372.9	374.7	376.6	377.5	377.5	377.5	377.5	377.4
117.5°	415.6	417.2	418.7	419.8	420.3	420.9	421.4	422.0
120°	443.3	445.3	447.3	448.4	448.5	448.6	448.7	448.9
122.5°	469.4	471.3	473.2	474.1	474.1	474.1	474.2	474.2
125°	507.7	509.3	510.9	511.7	512.1	512.3	512.5	512.8
127.5°	542.2	543.9	545.6	546.4	546.1	545.8	545.6	545.3
130°	565.1	566.6	568.1	568.8	568.8	568.8	568.7	568.7
132.5°	586.2	588.0	589.8	590.7	590.5	590.3	590.3	590.1
135°	616.7	618.2	619.6	620.3	620.1	620.0	619.8	619.6
137.5°	645.6	647.3	648.9	649.6	649.4	649.3	649.1	648.9
140°	663.2	665.0	666.8	667.5	667.2	666.9	666.6	666.3
142.5°	680.7	682.1	683.3	683.9	683.6	683.3	683.0	682.7
145°	706.0	706.8	707.7	707.9	707.6	707.3	707.0	706.7
147.5°	727.9	728.3	728.7	728.5	727.8	727.1	726.3	725.6
150°	742.1	742.4	742.7	742.4	741.3	740.4	739.4	738.5
152.5°	755.0	755.3	755.6	755.2	754.2	753.3	752.3	751.4
155°	772.8	773.2	773.6	773.2	772.1	771.0	769.9	768.8
157.5°	787.4	787.9	788.3	788.0	786.9	785.8	784.7	783.5
160°	796.5	797.1	797.6	797.4	796.3	795.2	794.1	793.0
162.5°	804.9	805.7	806.4	806.3	805.0	803.8	802.6	801.5
165°	815.7	816.5	817.4	817.2	816.1	815.0	813.9	812.8
167.5°	823.9	824.8	825.9	825.7	824.4	823.2	822.0	820.8
170°	828.0	829.1	830.2	830.1	828.9	827.7	826.4	825.2
172.5°	831.2	832.3	833.3	833.1	831.9	830.7	829.4	828.1
175°	834.8	835.9	837.0	836.9	835.8	834.5	833.3	832.0
177.5°	836.3	837.0	837.8	837.8	836.9	836.0	835.1	834.2
180°	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8

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