

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: P333186-940

Luminaire Tested: **S125DIP-S610D810U940-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333186-940  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIP-S610D810U940-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4823.7 lumens  
Efficiency: N/A  
Efficacy: 125.6 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

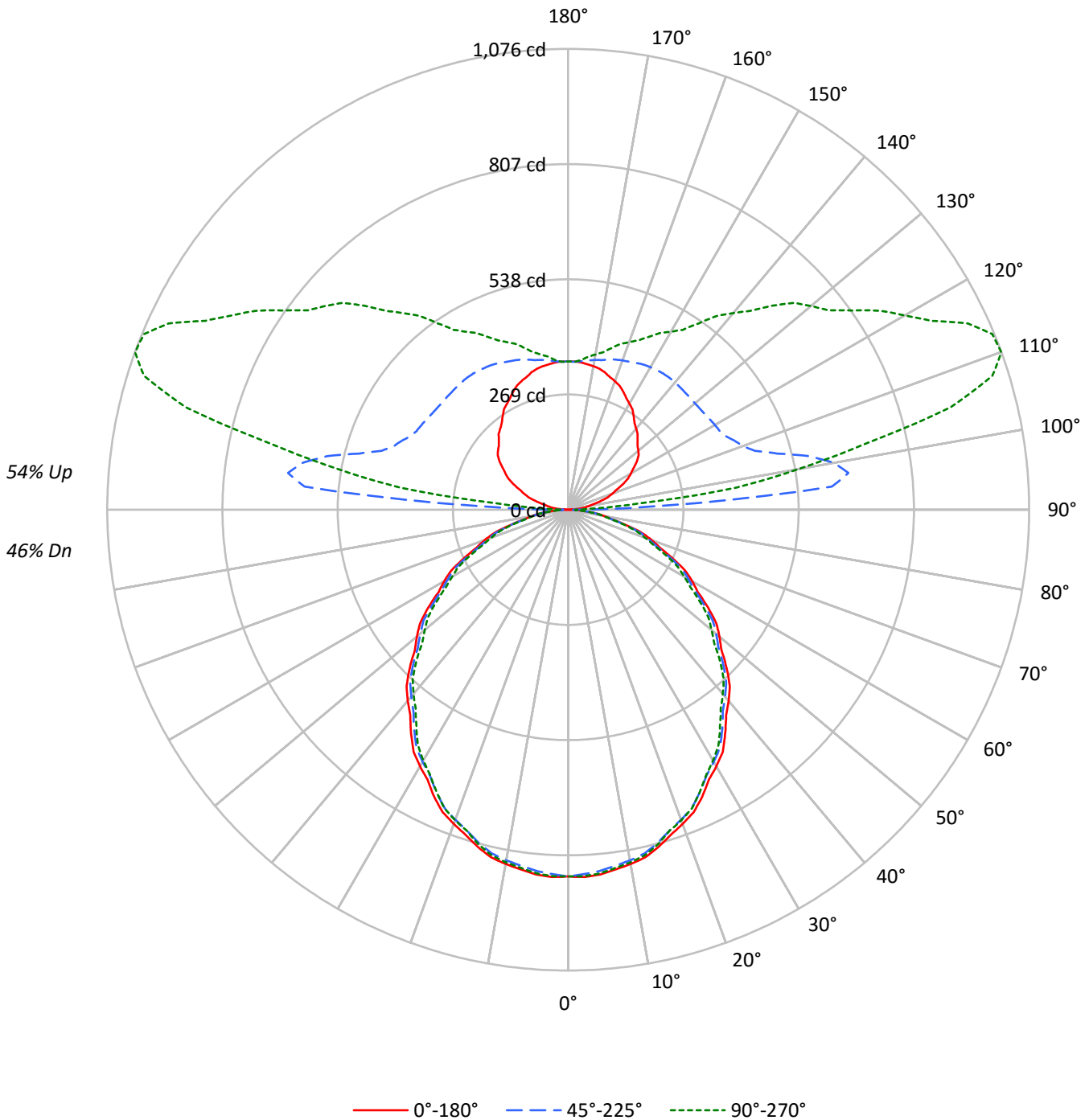
Input Watts (W): 38.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20				20				20				20				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	106	106	106	106	98	98	98	98	81	81	81	66	66	66	53	53	53	46
1	97	93	89	85	89	85	82	79	71	69	67	58	57	55	46	45	44	39
2	88	81	75	69	81	74	69	65	62	58	55	51	48	46	41	39	37	32
3	80	71	64	58	73	65	59	54	55	50	46	45	42	39	36	34	32	27
4	74	63	55	49	67	58	51	46	49	43	39	40	36	33	32	30	27	24
5	67	56	48	42	62	52	44	39	44	38	34	36	32	29	29	26	24	20
6	62	50	42	36	57	46	39	34	39	34	30	33	28	25	26	23	21	18
7	57	45	37	32	53	42	35	30	36	30	26	30	25	22	24	21	19	16
8	53	41	33	28	49	38	31	26	32	27	23	27	23	20	22	19	17	14
9	50	37	30	25	45	35	28	23	30	24	21	25	21	18	20	17	15	13
10	46	34	27	22	42	32	25	21	27	22	19	23	19	16	19	16	14	12

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

	0°	45°	90°
0°	5531	5531	5531
5°	5544	5490	5525
10°	5509	5452	5483
15°	5449	5386	5409
20°	5364	5294	5304
25°	5273	5185	5181
30°	5158	5068	5043
35°	5037	4941	4872
40°	4912	4804	4736
45°	4778	4678	4585
50°	4629	4527	4391
55°	4486	4355	4234
60°	4314	4184	4035
65°	4109	3976	3842
70°	3914	3737	3609
75°	3566	3449	3331
80°	3172	3124	3046
85°	2764	2808	2660



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.7	1.7
10°-20°	228.1	4.7
20°-30°	336.8	7.0
30°-40°	393.0	8.1
40°-50°	394.7	8.2
50°-60°	346.5	7.2
60°-70°	258.2	5.4
70°-80°	147.6	3.1
80°-90°	44.9	0.9
90°-100°	250.7	5.2
100°-110°	538.9	11.2
110°-120°	505.7	10.5
120°-130°	409.8	8.5
130°-140°	328.9	6.8
140°-150°	248.2	5.1
150°-160°	174.7	3.6
160°-170°	103.0	2.1
170°-180°	33.5	0.7
0°-30°	645.6	13.4
0°-40°	1038.6	21.5
0°-60°	1779.7	36.9
0°-90°	2230.3	46.2
90°-120°	1295.2	26.9
90°-150°	2282.2	47.3
90°-180°	2593.0	53.8
0°-180°	4823.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	856	856	856	856	856	
5°	855	853	847	853	852	81
15°	815	813	806	809	809	230
25°	740	736	728	729	727	340
35°	639	636	627	623	618	399
45°	523	520	512	504	502	403
55°	398	396	387	381	376	356
65°	269	267	260	254	251	267
75°	143	142	138	136	134	152
85°	37	38	38	37	36	42
90°	1	6	11	15	16	3
95°	23	68	618	280	164	24
105°	79	110	506	995	924	83
115°	141	170	406	875	1029	139
125°	195	229	389	696	811	173
135°	229	275	386	583	674	178
145°	266	305	388	483	531	167
155°	304	327	378	427	446	140
165°	332	341	363	385	390	93
175°	345	345	348	352	351	33
180°	346	346	346	346	346	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4
2.5°	858.5	858.2	857.8	857.5	857.1	856.3	855.2	853.9	852.7	851.5	852.7
5°	855.1	854.7	854.4	854.1	853.8	852.9	851.4	849.9	848.4	846.9	848.3
7.5°	847.1	846.9	846.6	846.2	846.0	845.0	843.3	841.7	840.0	838.4	839.6
10°	840.1	839.8	839.5	839.2	838.9	837.9	836.2	834.6	832.9	831.3	832.5
12.5°	831.4	830.9	830.4	829.8	829.3	828.2	826.7	825.2	823.6	822.1	823.0
15°	815.0	814.6	814.1	813.7	813.2	812.2	810.6	808.9	807.2	805.6	806.3
17.5°	796.2	795.6	794.9	794.2	793.5	792.4	790.7	788.9	787.2	785.5	786.4
20°	780.5	780.2	779.9	779.6	779.3	778.2	776.2	774.3	772.3	770.3	771.4
22.5°	764.7	764.2	763.7	763.1	762.6	761.4	759.6	757.8	755.9	754.0	754.7
25°	739.9	739.0	738.3	737.6	736.8	735.5	733.5	731.6	729.6	727.6	728.0
27.5°	710.7	710.2	709.8	709.4	708.9	707.7	705.6	703.6	701.6	699.6	699.6
30°	691.7	691.3	690.8	690.4	689.9	688.6	686.3	684.0	681.8	679.6	679.2
32.5°	671.1	670.5	669.8	669.1	668.3	667.0	665.0	663.0	660.9	659.0	658.4
35°	638.9	638.3	637.7	637.1	636.5	635.2	633.0	630.9	628.8	626.7	626.0
37.5°	605.4	604.7	604.0	603.2	602.4	601.0	599.1	597.1	595.0	593.1	592.0
40°	582.6	581.9	581.1	580.4	579.6	578.2	576.1	574.0	571.9	569.8	568.5
42.5°	558.3	557.7	557.0	556.3	555.7	554.4	552.2	550.2	548.0	545.9	544.7
45°	523.1	522.5	521.8	521.2	520.7	519.4	517.6	515.9	514.0	512.2	510.4
47.5°	485.1	485.1	485.2	485.2	485.2	484.1	482.0	479.8	477.7	475.5	473.7
50°	460.7	460.2	459.8	459.3	458.9	457.8	455.9	454.1	452.4	450.6	448.6
52.5°	435.8	435.4	435.2	434.8	434.4	433.3	431.4	429.4	427.6	425.6	423.9
55°	398.4	397.9	397.4	397.0	396.5	395.3	393.2	391.1	389.0	386.8	385.5
57.5°	358.9	358.7	358.5	358.2	358.0	357.0	355.2	353.4	351.6	349.9	348.1
60°	334.0	333.4	332.8	332.2	331.6	330.5	328.9	327.2	325.5	323.9	322.4
62.5°	308.0	307.6	307.0	306.6	306.0	305.1	303.7	302.3	300.9	299.4	297.8
65°	268.9	268.7	268.4	268.0	267.8	266.8	265.1	263.5	261.8	260.2	258.8
67.5°	231.1	230.5	229.9	229.3	228.6	227.7	226.5	225.2	224.0	222.7	221.6
70°	207.3	206.6	205.8	205.1	204.3	203.2	201.9	200.5	199.2	197.9	196.9
72.5°	181.3	180.7	180.3	179.8	179.2	178.5	177.7	176.8	175.9	175.0	174.1
75°	142.9	142.7	142.3	142.0	141.8	141.2	140.4	139.7	138.9	138.2	137.8
77.5°	107.6	107.5	107.4	107.2	107.1	106.8	106.4	106.0	105.6	105.1	104.9
80°	85.3	85.3	85.3	85.3	85.3	85.2	84.9	84.6	84.4	84.0	83.8
82.5°	65.9	65.6	65.4	65.1	64.9	64.7	64.6	64.6	64.6	64.5	64.2
85°	37.3	37.5	37.5	37.7	37.9	37.9	37.9	37.9	37.9	37.9	37.8
87.5°	14.8	14.9	15.2	15.4	15.8	16.0	16.0	16.1	16.1	16.3	16.5
90°	0.7	1.4	2.8	4.2	5.6	7.0	7.7	9.1	9.7	11.1	11.9
92.5°	8.5	10.3	16.1	24.8	36.8	57.2	95.2	159.1	228.4	224.8	182.0
95°	23.0	23.7	29.2	36.9	52.3	83.6	158.3	311.7	504.1	617.8	604.5
97.5°	38.2	39.1	43.0	50.6	64.4	87.0	136.3	248.8	450.1	659.7	764.8
100°	48.8	50.2	53.0	60.6	73.9	94.8	135.3	225.9	401.6	629.6	803.9
102.5°	60.5	61.3	63.6	71.8	83.9	104.3	140.3	216.4	364.8	576.6	780.5
105°	78.8	78.8	82.3	89.3	100.4	119.9	150.6	212.7	329.1	505.5	705.6
107.5°	96.7	98.0	101.4	107.1	118.7	136.3	165.9	219.1	314.1	456.6	629.2
110°	109.5	110.8	113.6	119.9	130.4	148.5	177.1	225.2	309.6	433.6	585.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	122.3	123.7	125.9	132.2	142.7	160.2	187.7	233.0	309.6	420.3	553.3
115°	140.8	142.2	144.4	150.6	161.0	178.5	204.3	244.7	311.7	405.8	518.0
117.5°	157.6	159.7	161.9	168.2	180.0	196.9	221.3	258.2	316.3	398.7	497.0
120°	168.7	170.9	173.6	179.9	191.7	209.2	233.5	267.1	320.7	395.3	485.3
122.5°	180.5	182.0	184.2	190.5	203.5	220.9	245.3	277.1	324.6	392.5	475.2
125°	195.2	196.6	200.1	206.3	219.6	237.7	260.7	290.7	331.2	389.1	461.5
127.5°	206.8	208.9	213.4	221.3	235.4	253.5	275.7	303.3	338.6	387.4	449.0
130°	214.0	216.2	221.7	230.8	245.4	263.6	285.2	311.7	343.0	386.3	440.7
132.5°	219.6	222.3	229.0	239.2	254.3	272.5	294.1	318.9	348.0	386.3	434.0
135°	228.7	231.5	239.9	251.0	265.6	284.5	306.1	329.1	354.9	386.3	426.0
137.5°	240.1	242.2	250.0	261.2	275.5	294.9	314.6	336.6	361.1	387.1	418.9
140°	246.8	248.9	257.3	268.4	281.7	300.5	320.7	341.6	363.9	387.6	415.5
142.5°	254.6	256.2	263.9	275.1	287.8	305.5	324.6	344.5	365.6	388.3	412.8
145°	266.4	267.7	274.7	284.5	297.0	313.1	331.2	348.6	367.5	387.6	408.6
147.5°	278.6	279.5	285.4	294.5	305.4	319.5	335.4	351.2	368.1	385.8	404.2
150°	285.9	287.2	292.1	301.2	310.9	322.8	338.1	352.8	368.1	384.1	400.9
152.5°	293.6	294.5	298.8	306.7	316.0	326.7	340.9	353.9	367.6	381.9	397.0
155°	304.0	304.0	308.2	315.1	322.1	331.9	343.8	354.9	366.0	377.9	390.5
157.5°	313.2	313.1	316.4	322.4	328.5	335.9	346.1	355.6	364.3	373.7	384.3
160°	319.3	318.6	321.5	326.3	331.9	338.1	347.2	355.6	362.6	371.0	379.3
162.5°	324.3	323.7	326.5	330.7	335.2	340.4	348.3	355.0	360.9	367.6	374.8
165°	331.9	330.5	332.6	336.1	338.9	343.0	348.6	354.2	358.4	362.6	368.1
167.5°	336.9	336.2	337.4	339.4	341.3	344.0	348.6	352.5	354.5	357.7	361.6
170°	340.3	339.6	340.3	341.6	343.0	345.1	348.6	351.4	352.8	354.9	357.7
172.5°	342.5	341.3	341.9	343.3	344.1	345.1	348.0	350.3	350.5	351.5	353.7
175°	345.1	343.8	344.5	345.1	345.1	345.1	347.2	348.6	347.9	347.9	348.6
177.5°	346.3	345.3	345.3	345.8	345.3	345.3	346.3	347.0	345.8	345.8	346.3
180°	345.8	345.8	345.8	345.8	345.8	345.8	345.8	345.8	345.8	345.8	345.8



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4
2.5°	853.9	855.2	856.3	856.8	856.8	856.6	856.5	856.4
5°	849.6	851.0	852.3	852.9	852.7	852.7	852.5	852.3
7.5°	841.0	842.3	843.6	844.3	844.1	843.9	843.8	843.6
10°	833.7	834.9	836.2	836.7	836.5	836.3	836.2	836.1
12.5°	824.0	825.0	825.9	826.4	826.3	826.3	826.3	826.3
15°	807.1	807.8	808.6	809.0	809.0	809.0	809.0	809.0
17.5°	787.4	788.3	789.3	789.3	788.5	787.8	787.1	786.3
20°	772.4	773.5	774.5	774.7	773.9	773.2	772.4	771.7
22.5°	755.5	756.2	756.9	757.0	756.4	755.9	755.4	754.9
25°	728.3	728.5	728.9	728.8	728.3	727.9	727.5	727.0
27.5°	699.7	699.8	699.8	699.6	699.2	698.7	698.3	697.9
30°	678.9	678.7	678.3	678.0	677.5	677.1	676.6	676.2
32.5°	657.9	657.3	656.7	656.1	655.3	654.5	653.6	652.8
35°	625.2	624.5	623.7	622.7	621.5	620.3	619.1	617.9
37.5°	590.8	589.8	588.6	587.7	587.0	586.4	585.7	585.0
40°	567.0	565.7	564.4	563.5	563.0	562.6	562.1	561.7
42.5°	543.5	542.2	541.0	540.0	539.3	538.7	538.0	537.3
45°	508.5	506.8	505.0	503.8	503.4	502.9	502.5	502.0
47.5°	471.8	469.9	468.1	466.7	465.7	464.6	463.5	462.4
50°	446.7	444.7	442.7	441.2	440.1	439.1	438.0	437.0
52.5°	422.1	420.4	418.7	417.3	416.2	414.9	413.8	412.6
55°	384.1	382.8	381.5	380.2	379.2	378.1	377.1	376.0
57.5°	346.3	344.6	342.9	341.7	341.2	340.5	340.0	339.5
60°	320.8	319.3	317.8	316.6	315.5	314.4	313.3	312.4
62.5°	296.2	294.6	292.9	291.8	291.0	290.1	289.3	288.5
65°	257.4	256.1	254.8	253.8	253.2	252.5	252.0	251.4
67.5°	220.5	219.4	218.2	217.4	217.0	216.7	216.3	216.0
70°	196.0	195.1	194.2	193.5	192.9	192.3	191.6	191.1
72.5°	173.0	172.0	170.9	170.1	169.5	169.0	168.4	167.7
75°	137.3	136.9	136.4	135.9	135.3	134.6	134.1	133.5
77.5°	104.6	104.3	104.1	103.7	103.3	102.9	102.5	102.0
80°	83.7	83.6	83.4	83.2	82.8	82.6	82.3	81.9
82.5°	63.9	63.7	63.4	63.2	63.2	63.1	63.0	63.0
85°	37.6	37.5	37.4	37.1	36.8	36.5	36.2	35.9
87.5°	16.6	16.8	16.9	17.0	16.8	16.6	16.5	16.2
90°	12.6	13.3	13.9	15.3	15.3	15.3	16.1	16.1
92.5°	123.6	89.7	67.5	57.2	48.2	46.5	45.6	44.5
95°	501.3	395.3	309.6	251.0	201.5	180.6	175.0	163.8
97.5°	746.6	672.3	588.7	507.3	464.2	425.2	404.9	396.0
100°	857.6	823.4	751.6	679.1	631.0	580.8	555.0	543.9
102.5°	894.9	916.1	881.5	832.5	781.0	745.3	717.3	708.9
105°	872.9	968.5	999.2	991.5	969.1	946.1	932.2	923.8
107.5°	794.2	921.8	1000.5	1036.9	1048.2	1048.0	1043.5	1037.9
110°	736.3	868.7	967.1	1026.3	1057.7	1070.9	1075.8	1075.8





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CATALOG NUMBER: S125DIP-S610D810U940-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	690.5	816.3	915.7	985.6	1031.4	1054.2	1066.3	1071.4
115°	633.1	741.2	836.7	912.7	967.1	1000.5	1020.0	1029.1
117.5°	596.0	689.1	771.4	841.2	895.5	930.1	949.5	955.0
120°	575.9	659.6	736.3	797.6	849.2	882.7	901.5	907.0
122.5°	560.9	638.4	706.7	764.2	810.2	840.9	859.7	864.7
125°	539.0	610.1	670.7	720.9	760.0	788.5	803.9	810.8
127.5°	516.7	583.0	639.6	686.6	722.0	747.3	761.8	764.8
130°	502.7	564.1	618.4	663.8	698.7	721.7	735.6	739.8
132.5°	488.7	546.2	595.6	639.2	674.0	697.1	709.9	714.6
135°	470.6	518.7	563.4	603.1	633.7	656.7	669.3	673.5
137.5°	455.3	494.2	531.3	565.0	592.5	613.4	625.0	629.6
140°	446.9	479.7	511.8	541.0	566.9	585.0	595.4	598.9
142.5°	439.7	467.4	495.0	520.4	542.3	557.7	567.6	570.4
145°	430.2	451.8	473.4	492.2	509.0	520.8	528.5	531.3
147.5°	421.2	438.8	455.4	469.7	482.9	492.4	496.9	498.1
150°	416.3	431.6	444.8	457.4	467.9	476.2	479.0	479.7
152.5°	410.6	424.4	436.5	446.2	455.0	461.7	464.5	465.2
155°	402.3	413.5	423.2	430.9	437.8	442.7	444.8	445.5
157.5°	394.0	403.1	410.6	416.7	422.1	426.1	428.1	427.9
160°	388.3	395.3	402.3	407.2	412.1	415.5	417.0	416.3
162.5°	382.2	388.6	394.5	398.8	402.6	405.5	405.8	405.6
165°	373.7	378.6	382.8	386.3	389.1	390.5	390.5	390.5
167.5°	365.6	368.8	372.0	374.5	375.9	377.2	376.7	376.5
170°	361.1	363.3	365.3	366.8	368.1	368.8	368.8	368.1
172.5°	356.1	358.2	359.8	360.6	360.9	362.1	361.1	360.3
175°	350.7	350.7	352.1	352.1	352.1	352.8	351.4	350.7
177.5°	347.0	347.5	347.5	347.5	347.0	347.5	345.8	345.8
180°	345.8	345.8	345.8	345.8	345.8	345.8	345.8	345.8

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