

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: P333182-940

Luminaire Tested: **S125DIP-S610D810U940-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333182-940  
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: S125DIP-S610D810U940-4F0-1E-UDD-D1  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4642.6 lumens  
Efficiency: N/A  
Efficacy: 120.9 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

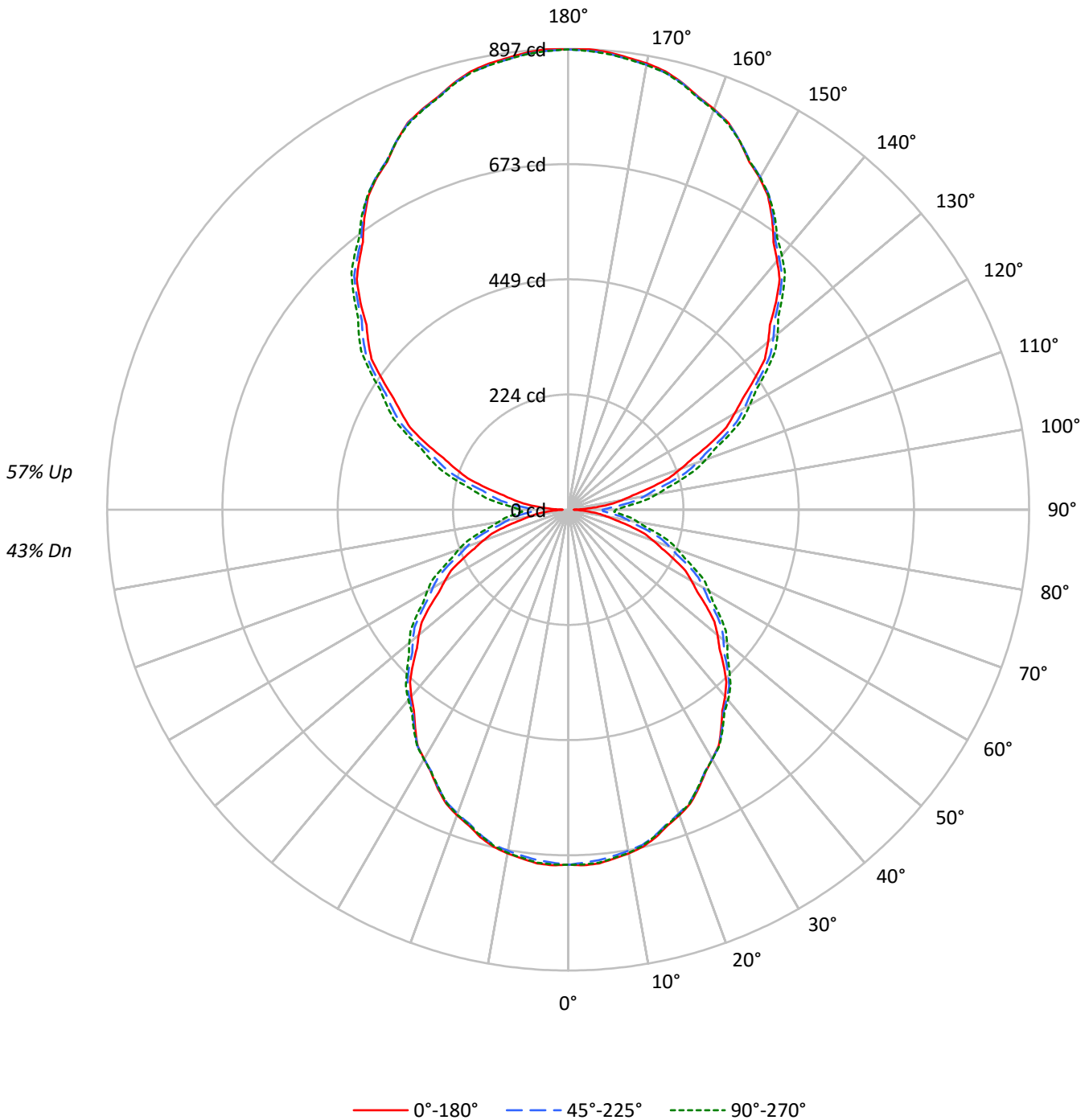
Input Watts (W): 38.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	106	106	106	106	97	97	97	97	80	80	80	64	64	64	50	50	50	43
1	96	91	87	83	87	83	80	77	69	66	64	55	54	52	43	42	41	35
2	87	79	73	67	79	72	67	62	60	56	52	48	45	43	38	36	34	29
3	79	69	62	56	72	64	57	52	53	48	44	42	39	36	33	31	29	24
4	72	61	53	47	66	56	49	44	47	41	37	38	34	31	29	27	24	21
5	66	54	46	40	60	50	43	37	42	36	32	34	30	26	26	24	21	18
6	61	49	40	35	55	45	38	32	37	32	28	30	26	23	24	21	19	16
7	56	44	36	30	51	40	33	28	34	28	24	28	23	20	22	19	16	14
8	52	40	32	27	47	37	30	25	31	25	21	25	21	18	20	17	15	12
9	48	36	29	24	44	33	27	22	28	23	19	23	19	16	18	15	13	11
10	45	33	26	21	41	31	24	20	26	21	17	21	17	15	17	14	12	10

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

	0°	45°	90°
0°	4463	4463	4463
5°	4472	4380	4394
10°	4440	4302	4295
15°	4388	4209	4171
20°	4316	4093	4045
25°	4232	3969	3891
30°	4129	3833	3751
35°	4033	3708	3622
40°	3935	3576	3493
45°	3825	3463	3378
50°	3720	3340	3276
55°	3593	3225	3156
60°	3455	3093	3035
65°	3310	2956	2898
70°	3145	2767	2758
75°	2887	2586	2585
80°	2548	2365	2396
85°	2232	2219	2336



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.3	1.4
10°-20°	185.5	4.0
20°-30°	275.9	5.9
30°-40°	326.8	7.0
40°-50°	337.9	7.3
50°-60°	311.2	6.7
60°-70°	251.6	5.4
70°-80°	168.5	3.6
80°-90°	89.3	1.9
90°-100°	109.0	2.3
100°-110°	213.4	4.6
110°-120°	324.4	7.0
120°-130°	408.8	8.8
130°-140°	448.7	9.7
140°-150°	435.0	9.4
150°-160°	364.4	7.8
160°-170°	242.2	5.2
170°-180°	84.8	1.8
0°-30°	526.7	11.3
0°-40°	853.5	18.4
0°-60°	1502.6	32.4
0°-90°	2012.0	43.3
90°-120°	646.8	13.9
90°-150°	1939.3	41.8
90°-180°	2631.0	56.7
0°-180°	4642.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	691	691	691	691	691	
5°	691	690	685	690	690	66
15°	660	660	656	660	657	186
25°	600	601	598	600	597	276
35°	519	523	522	524	524	325
45°	428	435	438	443	444	330
55°	329	339	350	357	360	294
65°	226	242	258	268	271	224
75°	125	143	164	177	181	132
85°	37	60	83	98	104	40
90°	12	39	67	85	93	10
95°	54	74	103	122	129	55
105°	165	180	204	221	228	176
115°	305	313	331	342	346	301
125°	441	445	459	468	471	395
135°	572	575	581	589	590	441
145°	692	694	696	699	700	432
155°	791	791	791	794	791	364
165°	860	858	859	861	858	242
175°	894	891	891	895	890	85
180°	896	896	896	896	896	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1
2.5°	692.7	692.4	692.2	692.0	691.7	691.2	690.4	689.5	688.7	687.8	688.7
5°	691.1	690.7	690.5	690.2	689.8	689.2	688.1	687.1	686.0	684.9	686.2
7.5°	684.9	684.8	684.7	684.6	684.5	683.9	682.8	681.7	680.6	679.6	680.6
10°	679.6	679.6	679.6	679.6	679.6	678.9	677.7	676.5	675.3	674.1	675.2
12.5°	672.0	672.1	672.2	672.3	672.4	672.0	671.0	670.1	669.1	668.2	669.0
15°	659.9	660.0	660.2	660.3	660.5	660.0	659.0	657.9	656.9	655.9	656.7
17.5°	644.2	644.4	644.8	645.1	645.4	645.0	644.0	642.9	641.9	640.8	641.5
20°	632.8	633.1	633.4	633.7	634.0	633.6	632.6	631.5	630.4	629.4	629.8
22.5°	619.8	620.4	620.9	621.4	622.0	621.6	620.5	619.3	618.1	617.0	617.5
25°	599.6	600.0	600.5	600.9	601.4	601.2	600.3	599.4	598.4	597.5	598.2
27.5°	577.1	577.7	578.5	579.1	579.8	579.6	578.5	577.6	576.5	575.5	575.9
30°	560.3	561.2	562.1	563.0	563.9	563.9	563.0	562.1	561.2	560.3	560.6
32.5°	545.1	545.9	546.7	547.5	548.2	548.3	547.7	547.0	546.4	545.6	546.0
35°	519.0	520.0	521.1	522.1	523.2	523.5	523.1	522.5	522.1	521.7	522.1
37.5°	492.8	493.8	494.7	495.7	496.7	497.0	497.0	496.8	496.6	496.5	497.0
40°	474.9	476.2	477.3	478.6	479.7	480.3	480.1	480.0	479.8	479.7	480.3
42.5°	455.4	457.0	458.5	460.1	461.7	462.6	463.0	463.3	463.6	464.0	464.7
45°	427.5	429.2	430.8	432.5	434.2	435.3	436.1	436.8	437.6	438.4	439.4
47.5°	399.0	400.5	402.0	403.5	405.1	406.4	407.8	409.0	410.4	411.6	413.2
50°	379.4	381.0	382.7	384.4	386.0	387.7	389.3	391.0	392.6	394.3	396.0
52.5°	358.8	360.8	362.8	364.9	366.8	368.9	371.0	372.9	375.0	376.9	378.7
55°	328.6	331.0	333.4	335.8	338.2	340.6	343.0	345.4	347.9	350.3	352.0
57.5°	297.7	300.6	303.4	306.4	309.2	312.1	314.9	317.6	320.4	323.2	325.0
60°	277.1	280.1	283.1	286.1	289.2	292.1	295.2	298.2	301.2	304.2	306.5
62.5°	257.1	260.0	263.1	266.1	269.1	272.2	275.4	278.7	282.0	285.3	287.8
65°	226.3	229.8	233.2	236.7	240.1	243.7	247.3	250.9	254.5	258.2	260.4
67.5°	197.3	200.6	203.9	207.3	210.6	214.2	217.8	221.5	225.2	228.9	231.6
70°	176.1	179.6	183.1	186.5	190.0	193.7	197.6	201.5	205.5	209.4	212.2
72.5°	155.5	159.2	162.7	166.3	169.9	173.8	178.1	182.4	186.6	190.9	194.0
75°	124.7	128.6	132.5	136.4	140.4	144.7	149.5	154.4	159.2	164.0	166.9
77.5°	95.0	99.5	104.1	108.5	113.1	117.6	122.3	126.9	131.5	136.2	139.5
80°	76.6	81.1	85.6	90.2	94.6	99.4	104.6	109.7	114.8	119.9	123.2
82.5°	59.7	64.5	69.3	74.0	78.8	83.8	89.0	94.3	99.5	104.8	107.9
85°	37.3	42.3	47.2	52.2	57.2	62.2	67.5	72.8	78.0	83.4	86.7
87.5°	21.3	26.3	31.4	36.5	41.6	46.7	52.1	57.4	62.8	68.1	71.7
90°	11.5	17.6	23.6	29.7	35.8	41.9	48.1	54.3	60.5	66.7	71.0
92.5°	26.7	31.9	37.3	42.6	47.9	53.9	60.5	67.1	73.6	80.2	84.5
95°	54.1	58.3	62.6	66.8	71.1	76.5	83.1	89.8	96.5	103.2	107.5
97.5°	83.3	86.9	90.6	94.3	97.9	103.3	110.3	117.4	124.5	131.5	135.7
100°	105.0	108.3	111.4	114.6	117.7	122.7	129.6	136.3	143.2	150.1	154.6
102.5°	128.5	132.1	135.6	139.1	142.7	147.3	153.0	158.7	164.4	170.2	174.8
105°	165.1	168.3	171.5	174.6	177.8	182.1	187.6	193.1	198.5	203.9	207.9
107.5°	205.5	208.4	211.2	214.0	216.9	220.8	225.8	230.9	235.9	240.9	244.4
110°	233.4	236.0	238.6	241.2	243.8	247.4	252.1	256.7	261.4	266.1	269.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	262.4	264.3	266.2	268.0	269.8	273.1	277.8	282.5	287.1	291.9	294.8
115°	304.6	306.3	307.9	309.6	311.3	314.2	318.4	322.7	326.9	331.1	333.7
117.5°	346.9	347.9	348.8	349.8	350.7	353.2	357.2	361.2	365.2	369.2	371.8
120°	373.6	374.9	376.1	377.3	378.5	380.9	384.6	388.2	391.8	395.5	398.0
122.5°	402.1	402.6	403.1	403.6	404.0	406.2	409.9	413.7	417.4	421.2	423.5
125°	441.3	442.1	442.8	443.6	444.4	446.4	449.5	452.7	455.8	459.1	461.2
127.5°	482.4	482.9	483.2	483.6	483.9	485.4	488.1	490.8	493.5	496.1	498.2
130°	507.6	508.2	508.8	509.4	510.1	511.6	514.0	516.4	518.8	521.2	523.2
132.5°	532.1	533.3	534.6	535.8	537.1	538.5	540.0	541.6	543.1	544.7	546.7
135°	571.8	572.5	573.3	574.1	574.9	575.9	577.0	578.3	579.4	580.7	582.6
137.5°	608.9	609.8	610.6	611.3	612.1	612.9	613.8	614.6	615.5	616.4	618.3
140°	632.4	633.2	633.9	634.7	635.5	636.2	636.9	637.4	638.0	638.6	640.6
142.5°	656.4	656.9	657.5	658.0	658.5	659.1	659.7	660.3	660.9	661.6	663.2
145°	691.7	692.1	692.6	693.1	693.6	694.0	694.5	694.9	695.4	695.9	696.6
147.5°	723.6	724.0	724.3	724.7	725.0	725.3	725.8	726.1	726.5	726.8	727.5
150°	745.4	745.2	745.1	744.9	744.8	745.0	745.6	746.3	746.9	747.5	747.5
152.5°	763.2	763.5	763.7	763.9	764.1	764.4	764.6	764.8	765.1	765.4	765.7
155°	790.7	790.7	790.7	790.7	790.7	790.8	790.9	791.1	791.2	791.4	792.0
157.5°	815.3	814.9	814.6	814.2	813.9	813.8	814.0	814.1	814.2	814.4	815.0
160°	829.7	829.3	828.8	828.4	827.9	827.8	827.9	828.0	828.2	828.4	829.0
162.5°	842.6	842.2	841.9	841.6	841.2	841.1	841.1	841.2	841.2	841.2	842.0
165°	859.8	859.4	859.2	858.8	858.5	858.4	858.5	858.7	858.9	859.1	859.7
167.5°	874.2	873.6	873.0	872.4	871.7	871.5	871.5	871.5	871.5	871.5	872.4
170°	882.1	881.5	880.8	880.2	879.6	879.2	879.2	879.2	879.2	879.2	880.2
172.5°	887.6	887.0	886.4	885.7	885.1	884.8	884.8	884.8	884.8	884.8	885.7
175°	893.9	893.3	892.7	892.1	891.4	891.1	891.1	891.1	891.1	891.1	892.1
177.5°	897.2	896.6	896.2	895.6	895.1	894.8	894.7	894.6	894.5	894.3	895.1
180°	896.0	896.0	896.0	896.0	896.0	896.0	896.0	896.0	896.0	896.0	896.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1
2.5°	689.5	690.4	691.2	691.5	691.4	691.3	691.2	691.1
5°	687.3	688.6	689.7	690.3	690.2	690.0	689.8	689.7
7.5°	681.6	682.7	683.8	684.2	684.0	683.9	683.8	683.6
10°	676.3	677.3	678.3	678.8	678.7	678.5	678.3	678.1
12.5°	669.8	670.6	671.5	671.6	671.2	670.8	670.5	670.0
15°	657.6	658.5	659.4	659.6	659.0	658.4	657.8	657.2
17.5°	642.2	642.8	643.5	643.7	643.4	643.0	642.7	642.3
20°	630.4	630.8	631.2	631.4	631.4	631.4	631.4	631.4
22.5°	618.0	618.7	619.2	619.3	618.9	618.6	618.2	617.9
25°	598.8	599.4	599.9	599.9	599.1	598.4	597.6	596.9
27.5°	576.3	576.8	577.2	577.2	576.9	576.7	576.4	576.1
30°	560.9	561.2	561.5	561.6	561.4	561.2	561.2	561.0
32.5°	546.3	546.5	546.9	547.0	546.8	546.6	546.5	546.4
35°	522.5	523.1	523.5	523.7	523.7	523.7	523.7	523.7
37.5°	497.7	498.3	498.9	499.2	499.1	499.0	499.0	498.9
40°	480.9	481.5	482.1	482.5	482.9	483.1	483.5	483.8
42.5°	465.4	466.1	466.8	467.3	467.3	467.3	467.4	467.5
45°	440.4	441.5	442.6	443.2	443.4	443.4	443.6	443.8
47.5°	414.7	416.3	417.8	418.7	419.1	419.4	419.7	420.1
50°	397.6	399.3	400.9	402.0	402.4	402.9	403.3	403.8
52.5°	380.5	382.3	384.1	385.1	385.5	385.8	386.1	386.5
55°	353.6	355.3	356.9	358.0	358.6	359.3	359.8	360.4
57.5°	327.0	328.9	330.7	331.9	332.4	332.9	333.3	333.8
60°	308.7	310.9	313.3	314.6	315.0	315.5	315.9	316.4
62.5°	290.3	292.7	295.2	296.8	297.3	297.9	298.5	299.1
65°	262.6	264.9	267.2	268.6	269.2	269.8	270.4	271.0
67.5°	234.3	237.1	239.8	241.6	242.4	243.2	244.0	244.7
70°	215.1	217.9	220.8	222.7	223.6	224.4	225.4	226.3
72.5°	197.2	200.2	203.3	205.2	205.9	206.5	207.2	207.9
75°	170.0	173.0	176.0	177.9	178.6	179.4	180.1	180.9
77.5°	142.8	146.2	149.5	151.4	151.9	152.6	153.2	153.8
80°	126.5	129.8	133.1	135.1	135.7	136.3	137.0	137.5
82.5°	111.1	114.3	117.5	119.7	120.7	121.8	122.9	123.9
85°	90.0	93.3	96.6	98.8	100.0	101.2	102.5	103.6
87.5°	75.3	78.9	82.6	85.0	86.1	87.2	88.4	89.5
90°	75.2	79.5	83.6	86.6	88.1	89.6	91.1	92.6
92.5°	88.9	93.3	97.6	100.5	101.9	103.3	104.7	106.1
95°	111.9	116.4	120.7	123.6	125.0	126.4	127.7	129.0
97.5°	139.9	144.1	148.3	151.0	152.2	153.4	154.6	155.9
100°	159.2	163.7	168.3	171.1	172.4	173.6	174.8	176.0
102.5°	179.3	183.9	188.4	191.4	192.7	194.0	195.4	196.7
105°	211.8	215.7	219.7	222.4	223.9	225.4	226.9	228.5
107.5°	247.9	251.3	254.8	256.9	257.8	258.7	259.7	260.6
110°	272.8	276.1	279.5	281.5	282.4	283.3	284.3	285.2





TEST NUMBER: P333182-940

CATALOG NUMBER: S125DIP-S610D810U940-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	297.7	300.7	303.7	305.6	306.3	307.1	307.9	308.6
115°	336.3	338.8	341.3	343.0	343.8	344.5	345.3	346.0
117.5°	374.5	377.2	379.9	381.5	381.8	382.3	382.6	383.1
120°	400.6	403.1	405.6	407.1	407.4	407.7	408.0	408.2
122.5°	425.8	428.1	430.4	431.8	432.2	432.6	433.0	433.4
125°	463.2	465.4	467.4	468.8	469.4	470.0	470.6	471.2
127.5°	500.2	502.3	504.4	505.7	506.3	506.8	507.4	507.9
130°	525.1	527.1	529.1	530.3	530.7	531.1	531.5	532.0
132.5°	548.7	550.6	552.6	553.7	553.8	554.0	554.2	554.4
135°	584.6	586.6	588.5	589.5	589.7	589.8	590.0	590.0
137.5°	620.3	622.2	624.2	625.1	624.9	624.7	624.6	624.4
140°	642.6	644.5	646.5	647.5	647.3	647.1	646.9	646.8
142.5°	664.8	666.4	668.0	668.7	668.5	668.3	668.2	668.0
145°	697.4	698.1	698.9	699.4	699.5	699.6	699.7	699.9
147.5°	728.1	728.7	729.3	729.2	728.4	727.6	726.8	726.1
150°	747.5	747.5	747.5	747.4	747.3	747.1	746.9	746.8
152.5°	766.1	766.4	766.8	766.8	766.2	765.7	765.2	764.6
155°	792.6	793.3	793.9	793.8	793.0	792.3	791.5	790.7
157.5°	815.6	816.3	816.9	816.7	815.6	814.7	813.6	812.6
160°	829.6	830.2	830.8	830.8	830.0	829.2	828.4	827.7
162.5°	842.7	843.5	844.2	844.1	843.2	842.3	841.4	840.5
165°	860.3	860.9	861.5	861.4	860.4	859.5	858.5	857.6
167.5°	873.3	874.2	875.2	875.1	874.2	873.3	872.3	871.3
170°	881.1	882.1	883.0	882.9	881.8	880.7	879.7	878.6
172.5°	886.7	887.6	888.6	888.6	887.6	886.6	885.6	884.7
175°	893.0	893.9	894.8	894.7	893.7	892.6	891.5	890.5
177.5°	895.8	896.5	897.3	897.2	896.3	895.5	894.7	893.8
180°	896.0	896.0	896.0	896.0	896.0	896.0	896.0	896.0

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