

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: P333378-940

Luminaire Tested: **S125DIW-S610D770U940-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333378-940
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-S610D770U940-4F0-1E-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: 4879.4 lumens
Efficiency: N/A
Efficacy: 129.8 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

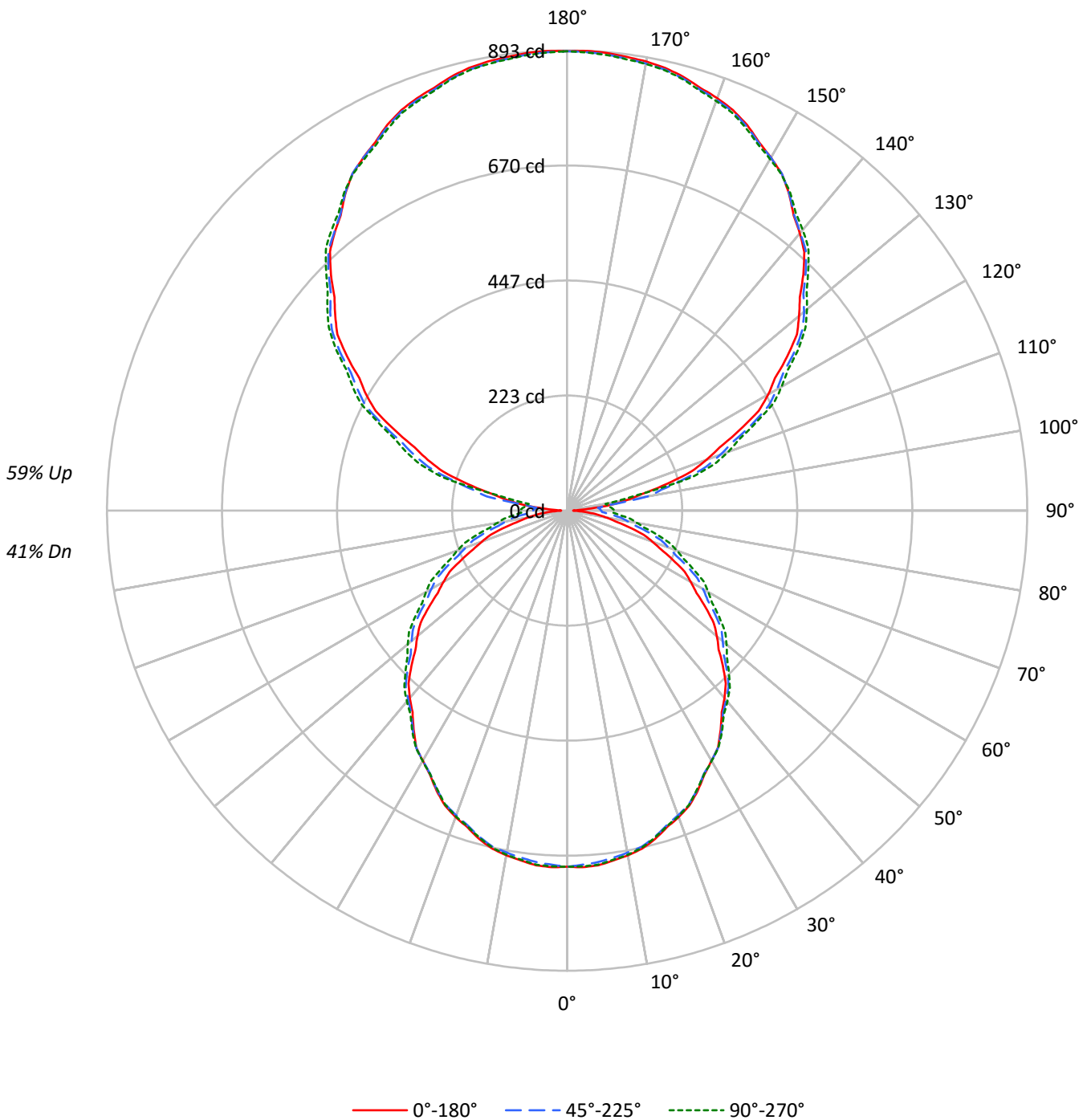
Input Watts (W): 37.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P333378-940

CATALOG NUMBER: S125DIW-S610D770U940-4F0-1E-UDD-D

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°	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	1.3
10°-20°	185.5	3.8
20°-30°	275.9	5.7
30°-40°	326.8	6.7
40°-50°	337.9	6.9
50°-60°	311.2	6.4
60°-70°	251.6	5.2
70°-80°	168.5	3.5
80°-90°	89.2	1.8
90°-100°	81.4	1.7
100°-110°	235.8	4.8
110°-120°	386.3	7.9
120°-130°	478.4	9.8
130°-140°	505.8	10.4
140°-150°	470.3	9.6
150°-160°	379.5	7.8
160°-170°	245.4	5.0
170°-180°	84.6	1.7
0°-30°	526.7	10.8
0°-40°	853.5	17.5
0°-60°	1502.6	30.8
0°-90°	2011.9	41.2
90°-120°	703.5	14.4
90°-150°	2158.0	44.2
90°-180°	2867.0	58.8
0°-180°	4879.4	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	66	84	92	9
95°	46	61	60	77	83	55
105°	200	214	234	247	252	212
115°	369	377	395	404	405	365
125°	521	526	539	547	548	465
135°	648	651	655	662	662	499
145°	751	751	751	755	754	469
155°	826	822	823	825	820	380
165°	872	868	868	872	867	246
175°	891	888	888	893	887	85
180°	891	891	891	891	891	



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CATALOG NUMBER: S125DIW-S610D770U940-4F0-1E-UDD-D

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	41.5	46.6	52.0	57.3	62.7	67.9	71.6
90°	11.5	17.5	23.5	29.5	35.5	41.6	47.7	53.9	60.0	66.2	70.4
92.5°	20.0	23.5	27.2	30.9	34.5	39.3	45.5	51.6	57.8	63.9	68.0
95°	46.5	49.9	53.4	56.9	60.4	61.9	61.4	61.0	60.5	60.0	64.1
97.5°	86.6	91.0	95.2	99.6	103.9	103.0	96.9	90.8	84.7	78.6	77.6
100°	117.8	121.4	125.0	128.6	132.2	136.7	142.1	147.5	152.9	158.4	139.6
102.5°	149.5	153.0	156.5	160.0	163.5	167.6	172.7	177.8	182.8	187.9	186.8
105°	200.4	203.3	206.3	209.4	212.3	216.1	220.6	225.2	229.6	234.2	237.2
107.5°	253.2	255.2	257.3	259.3	261.4	264.7	269.4	273.9	278.6	283.2	286.2
110°	287.6	289.4	291.1	292.9	294.8	297.9	302.5	306.9	311.5	315.9	318.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	320.3	322.1	323.9	325.7	327.5	330.6	334.8	339.1	343.3	347.6	349.8
115°	368.8	370.6	372.4	374.2	375.9	378.9	382.9	387.0	391.0	395.1	397.3
117.5°	419.0	419.6	420.4	421.0	421.6	424.1	428.4	432.7	436.8	441.1	442.9
120°	450.7	451.0	451.3	451.7	451.9	454.1	457.9	461.8	465.7	469.7	471.9
122.5°	478.1	478.9	479.7	480.5	481.3	483.4	487.0	490.5	494.0	497.6	499.7
125°	521.4	522.3	523.2	524.0	524.9	526.8	529.9	532.9	535.8	538.9	540.7
127.5°	562.0	562.7	563.2	563.8	564.4	565.9	568.3	570.6	573.0	575.4	577.3
130°	587.5	588.0	588.6	589.2	589.8	591.2	593.4	595.7	598.0	600.2	601.9
132.5°	612.2	613.1	613.9	614.7	615.5	616.6	618.0	619.2	620.5	621.8	623.8
135°	648.2	648.9	649.7	650.4	651.1	651.8	652.6	653.4	654.2	654.9	656.6
137.5°	681.3	681.9	682.5	683.1	683.9	684.3	684.5	684.7	685.0	685.3	687.1
140°	702.4	702.7	702.9	703.3	703.6	703.6	703.7	703.7	703.7	703.7	705.7
142.5°	721.9	722.0	722.0	722.1	722.1	722.3	722.6	722.7	723.0	723.3	724.7
145°	750.6	750.7	750.9	751.0	751.2	751.3	751.3	751.3	751.3	751.3	752.2
147.5°	775.1	775.0	774.9	774.9	774.8	774.9	775.1	775.2	775.3	775.5	776.0
150°	790.9	790.6	790.3	790.0	789.7	789.7	790.0	790.3	790.6	790.9	791.2
152.5°	806.2	805.6	804.9	804.3	803.6	803.4	803.8	804.1	804.3	804.6	804.9
155°	825.9	825.0	824.1	823.2	822.4	822.1	822.4	822.7	823.0	823.2	823.7
157.5°	841.1	840.6	840.1	839.5	839.0	838.7	838.7	838.8	838.8	838.8	839.4
160°	851.7	850.8	849.9	849.0	848.2	847.7	847.9	848.1	848.2	848.4	849.0
162.5°	860.1	859.3	858.4	857.5	856.6	856.2	856.4	856.6	856.7	856.8	857.6
165°	871.5	870.6	869.8	868.9	868.0	867.6	867.7	867.9	868.1	868.2	869.1
167.5°	879.9	879.0	878.2	877.3	876.3	875.9	876.1	876.2	876.4	876.6	877.5
170°	884.8	883.7	882.6	881.6	880.6	880.1	880.3	880.5	880.6	880.7	881.9
172.5°	887.9	886.9	885.8	884.8	883.8	883.4	883.7	884.0	884.2	884.5	885.5
175°	891.4	890.5	889.6	888.7	887.8	887.4	887.6	887.7	887.9	888.1	889.2
177.5°	892.9	892.2	891.5	890.8	890.1	889.7	889.9	890.0	890.1	890.3	891.1
180°	891.4	891.4	891.4	891.4	891.4	891.4	891.4	891.4	891.4	891.4	891.4



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CATALOG NUMBER: S125DIW-S610D770U940-4F0-1E-UDD-D

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°	75.2	78.8	82.4	84.8	86.0	87.0	88.2	89.3
90°	74.5	78.7	82.9	85.8	87.3	88.7	90.2	91.8
92.5°	72.1	76.2	80.3	82.9	84.2	85.4	86.7	88.0
95°	68.1	72.1	76.2	78.7	79.8	80.9	81.9	83.0
97.5°	76.6	75.6	74.6	74.7	75.7	76.8	77.8	78.7
100°	120.9	102.2	83.5	74.3	74.5	74.9	75.2	75.5
102.5°	185.7	184.6	183.5	178.3	169.3	160.2	151.1	142.0
105°	240.1	243.2	246.2	248.2	249.1	249.9	250.9	251.8
107.5°	289.3	292.3	295.2	297.0	297.6	298.0	298.5	299.0
110°	320.8	323.2	325.7	327.4	328.7	329.8	331.1	332.3



TEST NUMBER: P333378-940

CATALOG NUMBER: S125DIW-S610D770U940-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	352.0	354.2	356.3	357.8	358.7	359.5	360.4	361.2
115°	399.4	401.4	403.6	404.7	404.7	404.7	404.7	404.7
117.5°	444.7	446.6	448.4	449.5	450.2	450.8	451.5	452.1
120°	474.2	476.4	478.7	479.9	480.1	480.3	480.5	480.6
122.5°	501.9	504.0	506.1	507.3	507.3	507.4	507.5	507.5
125°	542.5	544.3	546.2	547.2	547.5	547.9	548.1	548.5
127.5°	579.3	581.1	583.0	583.9	583.6	583.4	583.3	583.0
130°	603.5	605.2	606.9	607.7	607.7	607.8	607.8	607.8
132.5°	625.9	627.9	629.9	630.9	630.8	630.6	630.5	630.4
135°	658.3	659.9	661.6	662.4	662.2	662.1	661.9	661.8
137.5°	688.9	690.7	692.6	693.4	693.3	693.1	692.9	692.8
140°	707.6	709.5	711.5	712.3	712.0	711.8	711.5	711.2
142.5°	726.2	727.6	729.2	729.7	729.4	729.2	728.9	728.6
145°	753.0	753.9	754.8	755.2	754.8	754.6	754.3	754.0
147.5°	776.4	776.8	777.2	777.0	776.2	775.4	774.7	773.9
150°	791.5	791.8	792.1	791.7	790.7	789.6	788.6	787.6
152.5°	805.2	805.5	805.8	805.5	804.4	803.3	802.4	801.3
155°	824.1	824.6	825.0	824.7	823.5	822.3	821.2	819.9
157.5°	839.8	840.3	840.7	840.3	839.2	838.0	836.9	835.7
160°	849.5	850.2	850.7	850.4	849.3	848.1	846.9	845.7
162.5°	858.4	859.3	860.1	859.9	858.6	857.3	856.0	854.7
165°	870.0	870.8	871.7	871.6	870.4	869.2	868.1	866.8
167.5°	878.6	879.7	880.7	880.7	879.3	878.0	876.6	875.3
170°	883.1	884.3	885.5	885.4	884.0	882.7	881.4	880.1
172.5°	886.5	887.6	888.7	888.5	887.3	885.9	884.6	883.2
175°	890.4	891.5	892.7	892.6	891.4	890.0	888.7	887.3
177.5°	891.9	892.7	893.6	893.5	892.5	891.6	890.6	889.7
180°	891.4	891.4	891.4	891.4	891.4	891.4	891.4	891.4

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