

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: P333174-927

Luminaire Tested: **S125DIP-S610D590U927-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333174-927
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-S610D590U927-4F0-1E-UDD-D4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 610 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3583.6 lumens
Efficiency: N/A
Efficacy: 109.3 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: General Diffuse

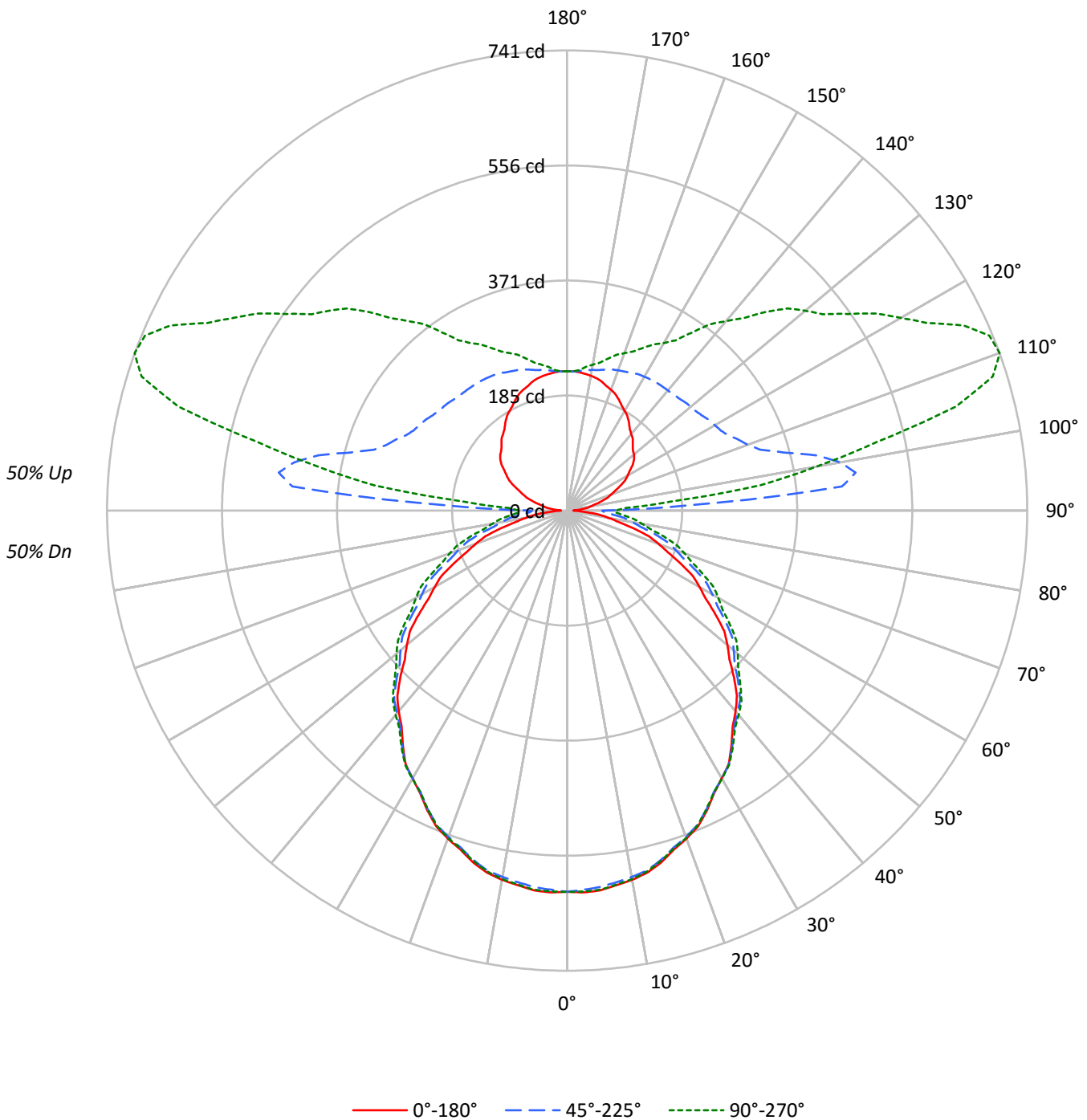
Input Watts (W): 32.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333174-927

CATALOG NUMBER: S125DIP-S610D590U927-4F0-1E-UDD-D4

Luminous Intensity Polar Plot





TEST NUMBER: P333174-927

CATALOG NUMBER: S125DIP-S610D590U927-4F0-1E-UDD-D4

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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	97	92	88	84	89	85	82	78	72	69	67	60	58	56	48	47	46	40
2	88	80	74	68	81	74	68	64	63	58	55	52	49	46	42	40	38	33
3	80	70	63	57	73	65	58	53	55	50	46	46	42	39	37	34	32	28
4	73	62	54	48	67	57	50	45	49	43	39	41	36	33	33	30	27	24
5	67	55	47	41	62	51	44	38	43	38	33	36	32	28	30	26	24	20
6	62	49	41	35	57	46	38	33	39	33	29	33	28	25	27	23	21	18
7	57	45	36	31	52	41	34	29	35	30	25	30	25	22	24	21	18	16
8	53	40	33	27	49	38	30	26	32	27	22	27	23	19	22	19	16	14
9	49	37	29	24	45	34	27	23	30	24	20	25	21	17	21	17	15	13
10	46	34	26	22	42	32	25	20	27	22	18	23	19	16	19	16	13	11

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



TEST NUMBER: P333174-927

CATALOG NUMBER: S125DIP-S610D590U927-4F0-1E-UDD-D4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.1	1.6
10°-20°	164.8	4.6
20°-30°	245.1	6.8
30°-40°	290.3	8.1
40°-50°	300.2	8.4
50°-60°	276.5	7.7
60°-70°	223.5	6.2
70°-80°	149.7	4.2
80°-90°	78.9	2.2
90°-100°	206.0	5.7
100°-110°	381.4	10.6
110°-120°	349.3	9.7
120°-130°	277.8	7.8
130°-140°	218.5	6.1
140°-150°	161.9	4.5
150°-160°	113.2	3.2
160°-170°	66.7	1.9
170°-180°	21.7	0.6
0°-30°	467.9	13.1
0°-40°	758.2	21.2
0°-60°	1334.9	37.2
0°-90°	1786.9	49.9
90°-120°	936.7	26.1
90°-150°	1595.0	44.5
90°-180°	1797.0	50.1
0°-180°	3583.6	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	33	57	72	78	7
95°	23	68	444	238	168	22
105°	56	87	361	690	648	60
115°	95	118	286	601	705	93
125°	129	151	266	474	552	114
135°	149	179	255	390	452	116
145°	173	198	251	316	350	108
155°	197	212	245	277	289	91
165°	215	221	235	249	253	61
175°	224	224	226	228	227	21
180°	224	224	224	224	224	



TEST NUMBER: P333174-927

CATALOG NUMBER: S125DIP-S610D590U927-4F0-1E-UDD-D4

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	23.2	27.7	32.2	36.6	41.2	45.9	50.6	55.2	60.0	63.1
90°	10.1	14.8	20.0	25.2	30.3	35.6	40.7	46.1	51.1	56.6	60.1
92.5°	14.2	19.3	27.1	36.6	48.4	65.8	95.2	141.2	190.8	193.1	168.3
95°	22.7	26.7	33.7	42.2	55.6	80.0	132.8	236.9	366.1	444.3	438.6
97.5°	31.8	35.6	41.2	49.3	61.4	79.8	116.1	193.4	328.3	468.5	539.5
100°	38.3	42.0	46.6	54.3	65.8	82.9	113.4	176.3	294.5	446.6	562.4
102.5°	45.4	48.5	52.5	60.4	70.9	87.5	115.0	168.5	268.9	410.3	545.1
105°	56.5	58.6	63.1	69.7	79.1	94.7	118.7	162.9	242.4	360.7	493.1
107.5°	67.3	70.0	74.1	79.5	88.9	103.1	126.2	164.5	229.9	326.1	440.6
110°	75.2	77.6	81.1	86.7	95.1	109.6	131.8	166.8	225.2	309.3	410.4



TEST NUMBER: P333174-927

CATALOG NUMBER: S125DIP-S610D590U927-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	83.5	85.6	88.4	93.7	101.8	115.7	137.1	170.1	223.4	298.7	387.4
115°	94.9	96.7	99.0	104.0	111.8	125.2	145.4	175.2	222.0	286.5	361.6
117.5°	105.1	107.1	109.2	113.8	122.2	135.1	154.2	181.3	222.3	279.0	345.0
120°	112.3	114.2	116.3	120.8	128.9	141.9	160.8	185.6	223.5	274.9	335.4
122.5°	119.5	120.6	122.3	126.5	135.1	148.0	166.8	190.4	224.2	271.2	326.9
125°	129.0	129.7	131.8	135.8	144.2	157.2	174.8	196.9	225.9	266.0	315.1
127.5°	135.9	137.0	139.8	144.8	153.8	166.6	183.2	203.3	228.3	262.1	304.0
130°	140.5	141.7	145.2	151.0	160.3	172.9	188.9	207.9	230.0	260.0	297.1
132.5°	143.7	145.4	149.6	156.2	166.0	178.6	194.0	211.5	231.9	258.0	290.8
135°	149.4	151.1	156.4	163.5	172.9	185.4	200.4	216.3	233.9	255.2	282.7
137.5°	156.7	158.0	163.0	170.0	179.3	191.9	205.2	219.9	236.3	253.5	275.7
140°	160.6	161.9	167.3	174.6	183.2	195.4	208.7	222.4	236.9	252.5	272.0
142.5°	165.6	166.5	171.5	178.6	186.7	198.1	210.6	223.4	237.2	251.8	269.0
145°	173.3	174.0	178.4	184.6	192.6	202.9	214.7	225.9	238.1	251.3	265.5
147.5°	180.5	181.1	185.0	190.8	197.9	207.1	217.4	227.6	238.6	250.1	262.2
150°	185.3	186.2	189.3	195.2	201.5	209.2	219.2	228.6	238.6	249.0	259.8
152.5°	190.4	190.8	193.7	198.8	204.8	211.8	220.9	229.3	238.2	247.6	257.3
155°	197.0	197.0	199.7	204.2	208.7	215.1	222.8	230.0	237.3	244.9	253.0
157.5°	203.0	202.9	205.1	209.0	212.9	217.7	224.3	230.4	236.1	242.2	249.1
160°	207.0	206.5	208.3	211.5	215.1	219.2	225.1	230.4	235.0	240.4	245.8
162.5°	210.2	209.8	211.6	214.4	217.3	220.6	225.8	230.1	233.9	238.2	243.0
165°	215.1	214.2	215.6	217.8	219.6	222.4	225.9	229.6	232.3	235.0	238.6
167.5°	218.3	217.9	218.7	220.0	221.3	222.9	225.9	228.5	229.7	231.8	234.3
170°	220.5	220.1	220.5	221.4	222.4	223.7	225.9	227.8	228.6	230.0	231.8
172.5°	222.0	221.2	221.6	222.5	223.1	223.7	225.6	227.0	227.2	227.8	229.3
175°	223.7	222.8	223.2	223.7	223.7	223.7	225.1	225.9	225.5	225.5	225.9
177.5°	224.5	223.8	223.8	224.1	223.8	223.8	224.5	224.8	224.1	224.1	224.5
180°	224.1	224.1	224.1	224.1	224.1	224.1	224.1	224.1	224.1	224.1	224.1



TEST NUMBER: P333174-927

CATALOG NUMBER: S125DIP-S610D590U927-4F0-1E-UDD-D4

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°	66.3	69.5	72.6	74.8	75.7	76.7	77.7	78.7
90°	63.6	67.2	70.7	73.6	74.5	75.5	76.8	77.8
92.5°	133.4	114.5	103.1	98.3	93.5	93.3	93.6	93.9
95°	374.7	309.0	256.4	220.3	189.2	176.6	173.9	167.5
97.5°	530.4	485.1	433.7	382.8	355.8	331.4	319.2	314.3
100°	599.9	580.6	536.9	491.7	461.3	429.6	413.7	407.3
102.5°	622.0	638.4	618.8	588.7	556.2	533.9	516.4	511.8
105°	604.2	668.8	691.3	688.2	674.7	660.7	652.6	648.1
107.5°	550.3	635.6	689.3	714.5	722.7	723.5	721.4	718.5
110°	510.6	599.0	665.2	705.4	726.7	736.2	740.3	741.2



TEST NUMBER: P333174-927

CATALOG NUMBER: S125DIP-S610D590U927-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	478.8	562.8	629.6	676.6	707.3	722.9	731.7	735.9
115°	438.6	511.0	575.4	626.2	662.3	684.8	698.2	704.9
117.5°	411.4	474.0	529.7	576.4	612.6	635.9	649.4	653.9
120°	396.5	453.0	504.9	546.2	580.5	603.0	616.0	620.4
122.5°	384.5	437.0	483.4	522.1	552.8	573.5	586.5	590.5
125°	367.4	415.7	457.1	491.1	517.1	536.2	546.8	552.0
127.5°	349.9	394.9	433.6	465.4	489.1	506.3	516.4	519.2
130°	339.2	380.8	418.0	448.6	471.8	487.4	497.1	500.5
132.5°	328.2	367.3	401.2	430.7	453.8	469.3	478.2	481.8
135°	313.3	346.3	376.9	403.9	424.4	440.0	448.8	452.2
137.5°	300.9	327.6	353.3	376.2	394.6	408.7	416.7	420.2
140°	293.8	316.5	338.7	358.8	376.0	388.3	395.6	398.4
142.5°	287.7	307.0	326.1	343.5	358.1	368.7	375.6	378.0
145°	280.1	294.9	309.5	322.3	333.7	341.9	347.4	349.7
147.5°	273.5	285.0	296.0	305.5	314.3	320.7	323.8	324.9
150°	269.7	279.7	288.3	296.5	303.4	309.0	310.9	311.5
152.5°	266.2	275.0	282.9	289.2	294.9	299.3	301.1	301.6
155°	260.7	268.0	274.3	279.2	283.8	286.9	288.3	288.8
157.5°	255.3	261.3	266.2	270.1	273.5	276.2	277.4	277.3
160°	251.7	256.2	260.7	263.9	267.0	269.3	270.2	269.7
162.5°	247.7	251.9	255.6	258.5	260.9	262.8	263.0	262.9
165°	242.2	245.3	248.1	250.3	252.2	253.0	253.0	253.0
167.5°	236.9	239.1	241.1	242.7	243.7	244.5	244.1	244.0
170°	234.1	235.4	236.8	237.7	238.6	239.1	239.1	238.6
172.5°	230.8	232.2	233.1	233.7	233.9	234.7	234.0	233.5
175°	227.3	227.3	228.2	228.2	228.2	228.6	227.8	227.3
177.5°	224.8	225.2	225.2	225.2	224.8	225.2	224.1	224.1
180°	224.1	224.1	224.1	224.1	224.1	224.1	224.1	224.1

(END OF REPORT)