

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

Luminaire Tested: **S125DIP-S610D590U835-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333174
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-S610D590U835-4F0-1E-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: 4523.7 lumens
Efficiency: N/A
Efficacy: 137.9 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

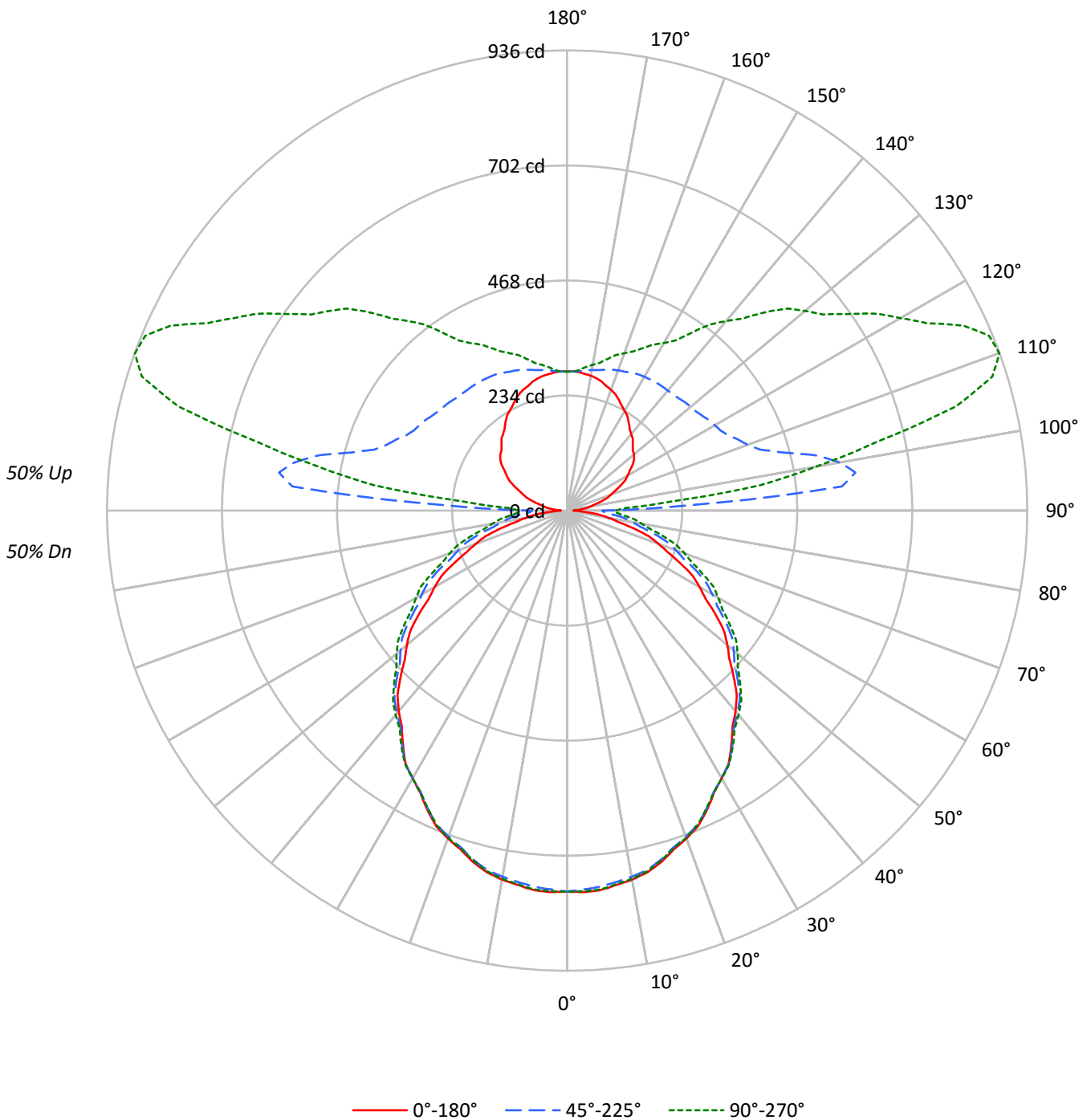
Input Watts (W): 32.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333174

CATALOG NUMBER: S125DIP-S610D590U835-4F0-1E-UDD-D4

Luminous Intensity Polar Plot





TEST NUMBER: P333174

CATALOG NUMBER: S125DIP-S610D590U835-4F0-1E-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°	5005	5005	5005
5°	5015	4912	4928
10°	4980	4825	4817
15°	4920	4720	4677
20°	4840	4590	4536
25°	4745	4451	4363
30°	4630	4298	4206
35°	4523	4158	4062
40°	4413	4010	3916
45°	4289	3884	3788
50°	4172	3746	3674
55°	4029	3616	3540
60°	3875	3468	3404
65°	3713	3314	3250
70°	3527	3103	3093
75°	3237	2899	2899
80°	2857	2653	2687
85°	2502	2488	2620



TEST NUMBER: P333174

CATALOG NUMBER: S125DIP-S610D590U835-4F0-1E-UDD-D4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.3	1.6
10°-20°	208.0	4.6
20°-30°	309.4	6.8
30°-40°	366.5	8.1
40°-50°	378.9	8.4
50°-60°	349.0	7.7
60°-70°	282.1	6.2
70°-80°	189.0	4.2
80°-90°	99.6	2.2
90°-100°	260.1	5.7
100°-110°	481.4	10.6
110°-120°	440.9	9.7
120°-130°	350.7	7.8
130°-140°	275.8	6.1
140°-150°	204.4	4.5
150°-160°	142.9	3.2
160°-170°	84.3	1.9
170°-180°	27.4	0.6
0°-30°	590.7	13.1
0°-40°	957.1	21.2
0°-60°	1685.1	37.2
0°-90°	2255.7	49.9
90°-120°	1182.4	26.1
90°-150°	2013.4	44.5
90°-180°	2268.0	50.1
0°-180°	4523.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	775	775	775	775	775	
5°	775	773	768	774	774	73
15°	740	740	736	740	737	208
25°	672	674	670	673	669	309
35°	582	587	585	587	587	364
45°	479	488	492	497	498	370
55°	368	381	393	401	404	329
65°	254	271	290	300	304	252
75°	140	160	184	198	203	148
85°	42	67	94	110	116	45
90°	13	42	71	91	98	9
95°	29	86	561	301	212	28
105°	71	110	455	871	818	75
115°	120	150	362	758	890	118
125°	163	190	336	598	697	144
135°	189	226	322	493	571	146
145°	219	250	317	399	442	137
155°	249	268	309	349	364	114
165°	272	279	297	315	319	76
175°	282	282	285	288	287	27
180°	283	283	283	283	283	



TEST NUMBER: P333174

CATALOG NUMBER: S125DIP-S610D590U835-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	775.0	775.0	775.0	775.0	775.0	775.0	775.0	775.0	775.0	775.0	775.0
2.5°	776.8	776.5	776.3	776.0	775.7	775.1	774.2	773.2	772.3	771.3	772.3
5°	775.0	774.6	774.3	774.0	773.6	772.9	771.7	770.5	769.3	768.1	769.5
7.5°	768.1	768.0	767.9	767.7	767.6	766.9	765.7	764.5	763.3	762.1	763.2
10°	762.1	762.1	762.1	762.1	762.1	761.4	760.0	758.7	757.3	756.0	757.2
12.5°	753.6	753.7	753.8	754.0	754.1	753.6	752.5	751.5	750.4	749.3	750.2
15°	740.0	740.2	740.4	740.5	740.7	740.2	739.0	737.8	736.7	735.5	736.5
17.5°	722.4	722.7	723.1	723.4	723.8	723.3	722.2	721.0	719.8	718.6	719.4
20°	709.6	710.0	710.3	710.7	711.0	710.6	709.4	708.2	707.0	705.8	706.3
22.5°	695.1	695.7	696.3	696.9	697.5	697.1	695.8	694.5	693.2	691.9	692.5
25°	672.4	672.9	673.4	673.9	674.4	674.2	673.2	672.2	671.1	670.1	670.8
27.5°	647.2	647.9	648.7	649.4	650.2	650.0	648.8	647.7	646.5	645.4	645.8
30°	628.3	629.4	630.4	631.4	632.4	632.4	631.4	630.4	629.4	628.3	628.7
32.5°	611.3	612.2	613.1	614.0	614.8	614.9	614.2	613.4	612.7	611.9	612.3
35°	582.0	583.2	584.4	585.5	586.7	587.1	586.6	586.0	585.5	585.0	585.5
37.5°	552.7	553.8	554.8	555.9	557.0	557.4	557.3	557.1	556.9	556.8	557.4
40°	532.6	534.0	535.3	536.7	538.0	538.6	538.4	538.3	538.1	537.9	538.6
42.5°	510.7	512.5	514.2	516.0	517.8	518.8	519.2	519.6	519.9	520.3	521.1
45°	479.4	481.3	483.1	485.0	486.9	488.2	489.1	489.9	490.7	491.6	492.8
47.5°	447.4	449.1	450.8	452.5	454.3	455.8	457.3	458.7	460.2	461.6	463.4
50°	425.5	427.3	429.2	431.1	432.9	434.8	436.6	438.5	440.3	442.2	444.1
52.5°	402.4	404.6	406.9	409.2	411.4	413.7	416.0	418.2	420.5	422.7	424.7
55°	368.5	371.2	373.9	376.6	379.3	382.0	384.7	387.4	390.1	392.8	394.7
57.5°	333.9	337.1	340.3	343.6	346.8	350.0	353.1	356.2	359.3	362.4	364.5
60°	310.8	314.1	317.5	320.9	324.3	327.6	331.0	334.4	337.8	341.1	343.7
62.5°	288.3	291.6	295.0	298.4	301.8	305.3	308.9	312.6	316.2	319.9	322.7
65°	253.8	257.7	261.5	265.4	269.3	273.3	277.3	281.4	285.4	289.5	292.0
67.5°	221.3	225.0	228.7	232.5	236.2	240.2	244.3	248.4	252.5	256.7	259.7
70°	197.5	201.4	205.3	209.2	213.1	217.2	221.6	226.0	230.4	234.8	238.0
72.5°	174.4	178.5	182.5	186.5	190.5	194.9	199.7	204.5	209.3	214.1	217.6
75°	139.8	144.2	148.6	153.0	157.4	162.3	167.7	173.1	178.5	183.9	187.2
77.5°	106.5	111.6	116.7	121.7	126.8	131.9	137.1	142.3	147.5	152.7	156.4
80°	85.9	90.9	96.0	101.1	106.1	111.5	117.3	123.0	128.7	134.5	138.2
82.5°	67.0	72.3	77.7	83.0	88.4	94.0	99.8	105.7	111.6	117.5	121.0
85°	41.8	47.4	52.9	58.5	64.1	69.8	75.7	81.6	87.5	93.5	97.2
87.5°	23.8	29.3	35.0	40.6	46.2	52.0	57.9	63.9	69.7	75.7	79.7
90°	12.7	18.7	25.2	31.8	38.3	45.0	51.4	58.2	64.5	71.4	75.9
92.5°	17.9	24.4	34.2	46.2	61.1	83.1	120.2	178.3	240.9	243.8	212.5
95°	28.7	33.7	42.6	53.3	70.2	101.0	167.7	299.0	462.1	560.9	553.7
97.5°	40.2	44.9	52.0	62.2	77.5	100.7	146.6	244.1	414.4	591.4	681.0
100°	48.3	53.0	58.8	68.6	83.0	104.6	143.1	222.6	371.8	563.7	709.9
102.5°	57.3	61.2	66.3	76.3	89.5	110.5	145.2	212.7	339.4	517.9	688.1
105°	71.3	74.0	79.6	88.0	99.8	119.6	149.8	205.6	306.0	455.3	622.4
107.5°	85.0	88.4	93.5	100.4	112.2	130.2	159.3	207.6	290.2	411.7	556.2
110°	94.9	98.0	102.4	109.5	120.1	138.3	166.4	210.5	284.3	390.5	518.1



TEST NUMBER: P333174

CATALOG NUMBER: S125DIP-S610D590U835-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	105.4	108.1	111.6	118.3	128.5	146.0	173.1	214.7	282.0	377.1	489.0
115°	119.8	122.1	125.0	131.3	141.1	158.1	183.6	221.1	280.2	361.6	456.5
117.5°	132.7	135.2	137.8	143.7	154.2	170.5	194.6	228.9	280.6	352.2	435.5
120°	141.8	144.1	146.8	152.5	162.7	179.1	203.0	234.3	282.1	347.0	423.4
122.5°	150.8	152.3	154.4	159.7	170.6	186.8	210.6	240.3	283.0	342.3	412.7
125°	162.8	163.7	166.4	171.4	182.0	198.5	220.7	248.6	285.1	335.8	397.8
127.5°	171.5	173.0	176.5	182.8	194.2	210.3	231.2	256.6	288.2	330.9	383.8
130°	177.4	178.9	183.3	190.6	202.4	218.3	238.4	262.4	290.4	328.2	375.0
132.5°	181.4	183.5	188.9	197.2	209.6	225.4	244.9	267.0	292.7	325.7	367.1
135°	188.6	190.7	197.4	206.4	218.2	234.1	253.0	273.0	295.2	322.1	356.8
137.5°	197.8	199.4	205.7	214.6	226.3	242.3	259.0	277.6	298.3	320.0	348.0
140°	202.7	204.4	211.2	220.4	231.2	246.7	263.4	280.7	299.1	318.7	343.4
142.5°	209.1	210.2	216.5	225.4	235.7	250.1	265.8	282.0	299.4	317.9	339.6
145°	218.7	219.6	225.2	233.0	243.1	256.1	271.0	285.2	300.6	317.2	335.1
147.5°	227.9	228.6	233.5	240.9	249.8	261.4	274.4	287.3	301.2	315.7	331.0
150°	233.9	235.0	239.0	246.4	254.4	264.1	276.7	288.6	301.2	314.3	328.0
152.5°	240.3	240.9	244.5	251.0	258.5	267.3	278.9	289.5	300.7	312.5	324.8
155°	248.7	248.7	252.1	257.8	263.5	271.5	281.2	290.3	299.5	309.2	319.4
157.5°	256.2	256.1	258.9	263.8	268.8	274.8	283.2	290.9	298.0	305.7	314.4
160°	261.3	260.7	263.0	267.0	271.5	276.7	284.1	290.9	296.6	303.5	310.3
162.5°	265.4	264.8	267.1	270.6	274.3	278.5	285.0	290.5	295.3	300.7	306.7
165°	271.5	270.4	272.1	274.9	277.2	280.7	285.2	289.8	293.2	296.6	301.2
167.5°	275.6	275.1	276.1	277.7	279.3	281.4	285.2	288.4	290.0	292.6	295.8
170°	278.4	277.8	278.4	279.5	280.7	282.4	285.2	287.5	288.6	290.3	292.6
172.5°	280.2	279.2	279.7	280.9	281.6	282.4	284.8	286.6	286.8	287.6	289.4
175°	282.4	281.2	281.8	282.4	282.4	282.4	284.1	285.2	284.6	284.6	285.2
177.5°	283.4	282.5	282.5	282.9	282.5	282.5	283.4	283.8	282.9	282.9	283.4
180°	282.9	282.9	282.9	282.9	282.9	282.9	282.9	282.9	282.9	282.9	282.9



TEST NUMBER: P333174

CATALOG NUMBER: S125DIP-S610D590U835-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	775.0	775.0	775.0	775.0	775.0	775.0	775.0	775.0
2.5°	773.2	774.2	775.1	775.5	775.4	775.3	775.1	775.0
5°	770.8	772.2	773.5	774.1	774.0	773.8	773.6	773.5
7.5°	764.4	765.6	766.8	767.3	767.1	767.0	766.8	766.6
10°	758.4	759.5	760.7	761.2	761.1	760.9	760.7	760.5
12.5°	751.1	752.0	753.0	753.2	752.7	752.3	751.9	751.4
15°	737.5	738.5	739.5	739.7	739.0	738.3	737.7	737.0
17.5°	720.2	720.9	721.7	721.9	721.5	721.1	720.7	720.3
20°	706.9	707.4	707.9	708.1	708.1	708.1	708.1	708.1
22.5°	693.1	693.8	694.4	694.5	694.1	693.7	693.3	692.9
25°	671.5	672.2	672.8	672.8	671.9	671.1	670.2	669.4
27.5°	646.3	646.8	647.3	647.3	647.0	646.7	646.4	646.1
30°	629.0	629.4	629.7	629.8	629.6	629.4	629.3	629.1
32.5°	612.6	612.9	613.3	613.4	613.2	613.0	612.9	612.7
35°	586.0	586.6	587.1	587.3	587.3	587.3	587.3	587.3
37.5°	558.1	558.8	559.5	559.8	559.7	559.6	559.6	559.5
40°	539.3	540.0	540.6	541.1	541.5	541.8	542.2	542.5
42.5°	521.9	522.7	523.5	524.0	524.1	524.1	524.2	524.3
45°	493.9	495.1	496.3	497.0	497.2	497.3	497.5	497.7
47.5°	465.1	466.8	468.5	469.6	470.0	470.3	470.7	471.1
50°	445.9	447.8	449.6	450.8	451.3	451.8	452.3	452.8
52.5°	426.7	428.7	430.7	431.9	432.3	432.6	433.0	433.4
55°	396.5	398.4	400.2	401.5	402.2	402.9	403.5	404.2
57.5°	366.7	368.8	370.9	372.2	372.8	373.3	373.8	374.3
60°	346.2	348.7	351.3	352.8	353.3	353.8	354.3	354.8
62.5°	325.5	328.3	331.1	332.8	333.4	334.1	334.7	335.4
65°	294.5	297.1	299.6	301.2	301.9	302.6	303.2	303.9
67.5°	262.8	265.9	268.9	270.9	271.8	272.7	273.6	274.4
70°	241.2	244.4	247.6	249.7	250.7	251.7	252.8	253.8
72.5°	221.1	224.5	228.0	230.1	230.9	231.6	232.4	233.1
75°	190.6	194.0	197.4	199.5	200.3	201.2	202.0	202.9
77.5°	160.1	163.9	167.6	169.8	170.4	171.1	171.8	172.5
80°	141.9	145.6	149.3	151.5	152.2	152.9	153.6	154.2
82.5°	124.6	128.2	131.8	134.2	135.4	136.6	137.8	139.0
85°	100.9	104.6	108.3	110.8	112.2	113.5	114.9	116.2
87.5°	83.7	87.7	91.7	94.4	95.6	96.8	98.1	99.3
90°	80.3	84.8	89.2	92.9	94.1	95.3	97.0	98.2
92.5°	168.4	144.5	130.1	124.1	118.0	117.8	118.2	118.5
95°	473.0	390.0	323.6	278.1	238.8	222.9	219.5	211.5
97.5°	669.6	612.3	547.5	483.2	449.1	418.3	402.9	396.8
100°	757.3	732.9	677.7	620.7	582.3	542.3	522.2	514.1
102.5°	785.2	805.9	781.1	743.1	702.1	673.9	651.9	646.1
105°	762.7	844.2	872.7	868.7	851.7	834.0	823.8	818.1
107.5°	694.7	802.3	870.1	902.0	912.3	913.3	910.6	907.0
110°	644.5	756.1	839.7	890.4	917.3	929.3	934.5	935.6



TEST NUMBER: P333174

CATALOG NUMBER: S125DIP-S610D590U835-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	604.4	710.4	794.8	854.1	892.8	912.5	923.7	928.9
115°	553.7	645.1	726.3	790.5	836.0	864.4	881.4	889.8
117.5°	519.3	598.4	668.6	727.6	773.3	802.7	819.7	825.4
120°	500.5	571.8	637.4	689.5	732.8	761.2	777.6	783.2
122.5°	485.4	551.6	610.2	659.1	697.8	723.9	740.3	745.4
125°	463.8	524.7	577.0	619.9	652.7	676.9	690.3	696.8
127.5°	441.7	498.5	547.3	587.5	617.4	639.1	651.9	655.4
130°	428.2	480.7	527.6	566.3	595.6	615.3	627.5	631.8
132.5°	414.3	463.7	506.4	543.7	572.9	592.4	603.7	608.2
135°	395.5	437.1	475.8	509.8	535.7	555.4	566.5	570.8
137.5°	379.8	413.6	446.0	474.9	498.1	515.9	526.0	530.4
140°	370.9	399.5	427.6	452.9	474.6	490.2	499.4	502.9
142.5°	363.2	387.5	411.7	433.6	452.1	465.4	474.1	477.2
145°	353.6	372.2	390.7	406.9	421.2	431.6	438.5	441.5
147.5°	345.2	359.8	373.7	385.6	396.7	404.8	408.8	410.1
150°	340.5	353.1	363.9	374.3	383.0	390.0	392.5	393.2
152.5°	336.0	347.2	357.1	365.1	372.3	377.8	380.1	380.7
155°	329.1	338.3	346.2	352.5	358.2	362.2	363.9	364.5
157.5°	322.3	329.8	336.0	340.9	345.3	348.6	350.2	350.1
160°	317.7	323.4	329.1	333.1	337.1	340.0	341.1	340.5
162.5°	312.7	318.0	322.7	326.3	329.4	331.8	332.0	331.9
165°	305.7	309.7	313.2	316.0	318.3	319.4	319.4	319.4
167.5°	299.1	301.8	304.4	306.4	307.6	308.6	308.1	308.0
170°	295.5	297.2	298.9	300.0	301.2	301.8	301.8	301.2
172.5°	291.4	293.1	294.3	295.0	295.3	296.3	295.4	294.8
175°	286.9	286.9	288.1	288.1	288.1	288.6	287.5	286.9
177.5°	283.8	284.3	284.3	284.3	283.8	284.3	282.9	282.9
180°	282.9	282.9	282.9	282.9	282.9	282.9	282.9	282.9

(END OF REPORT)