

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: P333165

Luminaire Tested: **S125DIP-S610D365U835-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333165  
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-S610D365U835-4F0-1E-UDD-D4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

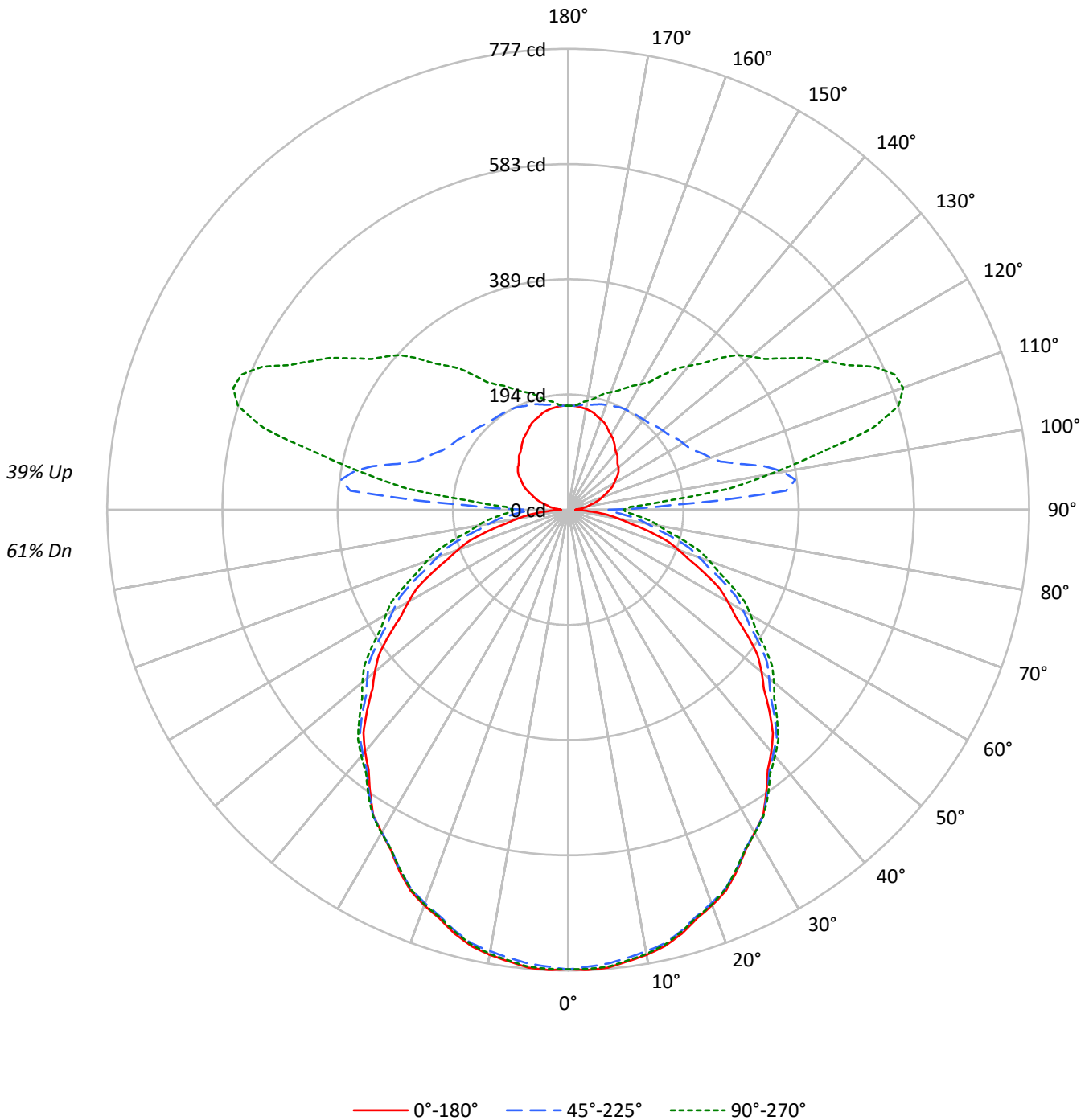
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3715.9 lumens  
Efficiency: N/A  
Efficacy: 135.1 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: Semi-Direct  
  
Input Watts (W): 27.5  
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



TEST NUMBER: P333165  
CATALOG NUMBER: S125DIP-S610D365U835-4F0-1E-UDD-D4

### 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	110	110	110	110	103	103	103	103	89	89	89	77	77	77	66	66	66	61
1	99	94	90	86	93	88	85	81	77	74	72	67	64	62	57	55	54	49
2	90	82	75	70	84	77	71	66	67	62	59	58	54	51	50	47	45	41
3	82	72	64	58	76	67	60	55	59	53	49	51	47	43	44	40	38	34
4	75	63	55	49	70	60	52	46	52	46	41	45	41	37	39	35	32	29
5	69	56	48	42	64	53	45	40	47	40	36	41	36	32	35	31	28	25
6	63	51	42	36	59	48	40	34	42	36	31	37	32	28	32	28	25	22
7	59	46	37	32	54	43	35	30	38	32	27	33	28	24	29	25	22	19
8	54	42	33	28	51	39	32	27	35	29	24	30	25	22	26	22	19	17
9	51	38	30	25	47	36	29	24	32	26	22	28	23	20	24	20	18	15
10	47	35	27	22	44	33	26	21	29	24	20	26	21	18	23	19	16	14

**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: P333165

CATALOG NUMBER: S125DIP-S610D365U835-4F0-1E-UDD-D4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.3	2.0
10°-20°	208.0	5.6
20°-30°	309.4	8.3
30°-40°	366.5	9.9
40°-50°	378.9	10.2
50°-60°	349.0	9.4
60°-70°	282.1	7.6
70°-80°	189.0	5.1
80°-90°	99.0	2.7
90°-100°	182.0	4.9
100°-110°	313.7	8.4
110°-120°	283.5	7.6
120°-130°	223.2	6.0
130°-140°	173.5	4.7
140°-150°	127.2	3.4
150°-160°	88.6	2.4
160°-170°	52.2	1.4
170°-180°	17.0	0.5
0°-30°	590.7	15.9
0°-40°	957.1	25.8
0°-60°	1685.1	45.3
0°-90°	2255.1	60.7
90°-120°	779.2	21.0
90°-150°	1303.0	35.1
90°-180°	1461.0	39.3
0°-180°	3715.9	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°	12	40	68	86	93	9
95°	22	64	369	214	161	20
105°	47	75	298	561	531	49
115°	76	97	235	486	570	75
125°	102	119	215	382	444	90
135°	117	140	202	311	361	91
145°	136	155	196	248	276	85
155°	154	166	192	216	226	71
165°	168	173	184	195	198	47
175°	175	175	176	178	178	17
180°	175	175	175	175	175	



TEST NUMBER: P333165

CATALOG NUMBER: S125DIP-S610D365U835-4F0-1E-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	29.2	34.8	40.3	45.9	51.6	57.4	63.3	69.1	75.0	78.9
90°	12.5	18.3	24.4	30.5	36.6	42.9	49.0	55.4	61.5	68.0	72.2
92.5°	15.3	21.2	29.1	38.5	49.6	65.3	90.5	128.8	169.8	173.8	155.9
95°	21.5	26.3	33.5	41.8	53.9	74.9	118.5	202.0	305.2	368.6	365.6
97.5°	28.3	32.7	38.6	46.5	57.4	73.6	104.2	166.7	274.3	386.1	442.9
100°	33.1	37.3	42.3	49.7	60.0	75.1	101.0	152.3	246.8	367.8	459.7
102.5°	38.4	42.1	46.5	54.0	63.4	78.0	101.5	145.4	225.8	338.5	445.2
105°	46.8	49.5	53.9	60.2	68.5	82.3	102.9	139.4	203.5	298.0	402.8
107.5°	54.9	57.9	61.9	67.1	75.3	87.7	107.7	139.5	192.5	269.6	360.4
110°	60.8	63.5	67.0	72.2	79.5	92.1	111.3	140.4	187.9	255.5	335.8



TEST NUMBER: P333165

CATALOG NUMBER: S125DIP-S610D365U835-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	67.3	69.6	72.4	77.2	84.1	96.1	114.6	142.2	185.6	246.3	316.8
115°	75.9	77.8	80.1	84.4	90.9	102.5	120.0	144.9	183.2	235.3	295.3
117.5°	83.7	85.5	87.4	91.4	98.2	109.2	125.7	148.5	182.1	228.1	280.8
120°	89.3	90.9	92.8	96.5	103.0	114.0	130.3	151.1	182.2	223.9	272.4
122.5°	94.7	95.7	97.0	100.5	107.3	118.1	134.2	154.1	181.9	220.1	264.7
125°	102.0	102.5	104.1	107.1	113.7	124.5	139.5	158.1	182.0	214.7	254.1
127.5°	107.1	108.0	110.1	113.9	120.9	131.4	145.4	162.2	182.8	210.3	244.1
130°	110.8	111.7	114.3	118.8	126.0	136.3	149.6	165.4	183.7	207.9	237.9
132.5°	113.0	114.3	117.7	122.8	130.5	140.5	153.3	167.7	184.3	205.5	232.1
135°	117.4	118.7	122.8	128.2	135.5	145.5	157.7	170.5	184.8	201.9	224.2
137.5°	123.1	124.0	127.8	133.4	140.5	150.5	161.1	172.8	185.8	199.6	217.7
140°	125.9	126.9	131.2	136.8	143.5	153.2	163.6	174.4	185.8	198.0	214.0
142.5°	129.8	130.5	134.3	139.8	146.1	155.0	164.8	174.8	185.6	197.1	211.1
145°	135.8	136.3	139.7	144.4	150.6	158.7	167.9	176.7	186.2	196.5	207.9
147.5°	141.2	141.6	144.7	149.3	154.8	161.9	170.0	178.0	186.6	195.6	205.2
150°	144.9	145.6	148.1	152.7	157.6	163.6	171.4	178.8	186.6	194.7	203.2
152.5°	148.9	149.3	151.5	155.5	160.2	165.6	172.8	179.4	186.3	193.6	201.2
155°	154.1	154.1	156.2	159.7	163.3	168.2	174.2	179.9	185.5	191.6	197.9
157.5°	158.8	158.7	160.4	163.4	166.5	170.3	175.4	180.2	184.6	189.4	194.8
160°	161.9	161.5	162.9	165.4	168.2	171.4	176.0	180.2	183.8	188.0	192.3
162.5°	164.4	164.1	165.5	167.7	169.9	172.5	176.6	180.0	182.9	186.3	190.0
165°	168.2	167.5	168.6	170.3	171.8	173.9	176.7	179.5	181.7	183.8	186.6
167.5°	170.8	170.4	171.1	172.0	173.0	174.4	176.7	178.7	179.7	181.3	183.3
170°	172.5	172.1	172.5	173.2	173.9	174.9	176.7	178.1	178.8	179.9	181.3
172.5°	173.6	173.0	173.3	174.0	174.4	174.9	176.4	177.6	177.7	178.2	179.3
175°	174.9	174.2	174.6	174.9	174.9	174.9	176.0	176.7	176.4	176.4	176.7
177.5°	175.6	175.0	175.0	175.3	175.0	175.0	175.6	175.9	175.3	175.3	175.6
180°	175.3	175.3	175.3	175.3	175.3	175.3	175.3	175.3	175.3	175.3	175.3



TEST NUMBER: P333165

CATALOG NUMBER: S125DIP-S610D365U835-4F0-1E-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°	82.9	86.8	90.8	93.5	94.7	95.8	97.1	98.3
90°	76.4	80.7	84.9	88.1	89.3	90.5	92.0	93.2
92.5°	130.0	116.6	109.1	106.3	103.0	103.3	104.0	104.6
95°	317.0	267.0	227.2	200.0	176.1	166.7	165.0	160.6
97.5°	437.2	403.1	364.3	325.3	304.6	286.0	276.9	273.5
100°	490.4	476.6	443.8	409.3	385.9	361.5	349.4	344.8
102.5°	506.7	520.7	506.7	484.0	459.0	441.9	428.7	425.5
105°	491.0	542.8	561.7	560.1	550.0	539.5	533.6	530.6
107.5°	447.4	515.4	558.7	579.3	586.1	587.1	585.8	584.0
110°	415.3	485.7	538.7	571.0	588.0	595.9	599.6	600.8





TEST NUMBER: P333165

CATALOG NUMBER: S125DIP-S610D365U835-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	389.4	456.3	509.7	547.3	571.7	584.4	591.8	595.5
115°	356.6	414.4	465.9	506.4	535.0	553.0	563.9	569.5
117.5°	333.8	383.9	428.5	465.8	494.5	513.2	524.2	528.2
120°	321.2	366.5	408.2	441.3	468.4	486.4	497.0	500.8
122.5°	310.9	352.9	390.3	421.3	445.6	462.2	472.7	476.3
125°	296.1	334.8	368.3	395.5	416.1	431.5	440.1	444.5
127.5°	280.9	317.0	348.2	373.8	392.7	406.5	414.8	417.3
130°	271.7	305.2	335.1	359.7	378.2	390.7	398.6	401.6
132.5°	262.2	293.7	321.1	344.7	363.1	375.5	382.7	385.8
135°	249.0	275.6	300.4	322.1	338.5	351.0	358.2	361.2
137.5°	238.1	259.8	280.6	299.1	313.7	324.9	331.5	334.5
140°	231.8	250.2	268.4	284.5	298.2	308.1	314.1	316.5
142.5°	226.3	242.0	257.6	271.6	283.3	291.8	297.5	299.6
145°	219.7	231.5	243.3	253.6	262.8	269.5	274.1	276.1
147.5°	214.1	223.2	231.9	239.4	246.4	251.6	254.1	255.1
150°	211.0	218.8	225.5	231.9	237.4	241.8	243.4	243.9
152.5°	208.2	215.1	221.2	226.2	230.7	234.1	235.6	235.9
155°	203.9	209.6	214.5	218.4	221.9	224.4	225.5	225.8
157.5°	199.7	204.3	208.2	211.2	214.0	216.0	217.0	216.9
160°	196.9	200.4	203.9	206.4	208.9	210.6	211.3	211.0
162.5°	193.7	197.0	200.0	202.2	204.1	205.5	205.7	205.6
165°	189.4	191.9	194.0	195.8	197.2	197.9	197.9	197.9
167.5°	185.3	187.0	188.6	189.9	190.6	191.2	190.9	190.8
170°	183.1	184.1	185.2	185.9	186.6	187.0	187.0	186.6
172.5°	180.5	181.6	182.4	182.8	182.9	183.6	183.0	182.6
175°	177.8	177.8	178.5	178.5	178.5	178.8	178.1	177.8
177.5°	175.9	176.1	176.1	176.1	175.9	176.1	175.3	175.3
180°	175.3	175.3	175.3	175.3	175.3	175.3	175.3	175.3

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