

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: P333163-840

Luminaire Tested: **S125DIP-S610D365U840-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333163-840  
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: S125DIP-S610D365U840-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 365 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3903.8 lumens  
Efficiency: N/A  
Efficacy: 142.0 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

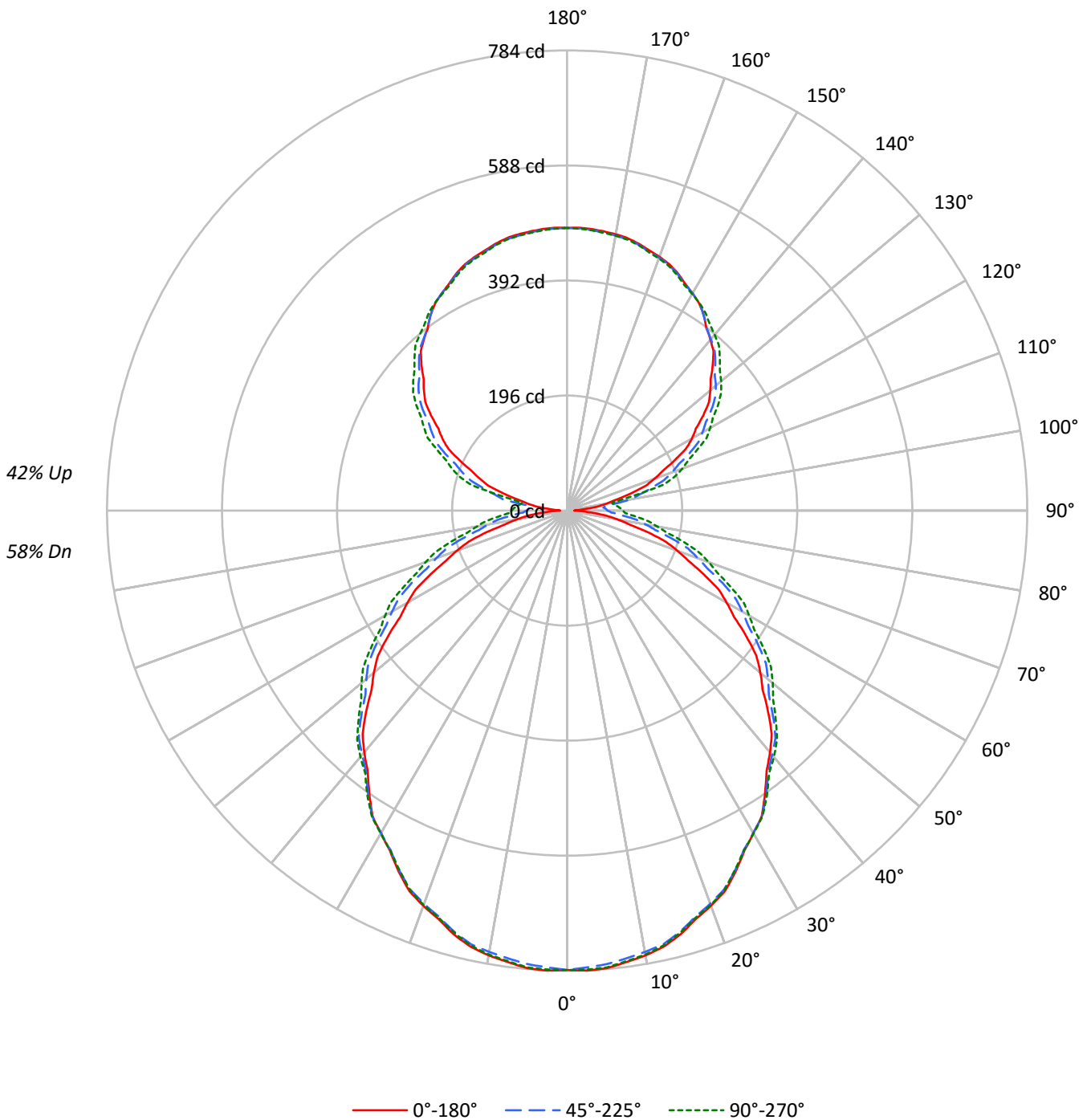
Input Watts (W): 27.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





TEST NUMBER: P333163-840

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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	109	109	109	109	102	102	102	102	88	88	88	75	75	75	64	64	64	58
1	99	94	90	86	92	88	84	81	76	73	71	65	63	61	55	54	52	47
2	90	82	75	69	83	76	70	65	66	62	58	57	53	50	48	45	43	39
3	82	71	64	58	76	67	60	54	58	53	48	50	46	42	42	39	36	33
4	75	63	55	48	69	59	52	46	51	45	41	44	40	36	38	34	31	28
5	68	56	48	41	63	53	45	39	46	40	35	40	35	31	34	30	27	24
6	63	50	42	36	58	47	40	34	41	35	31	36	31	27	31	27	24	21
7	58	45	37	31	54	43	35	30	37	31	27	32	28	24	28	24	21	18
8	54	41	33	28	50	39	32	26	34	28	24	30	25	21	26	22	19	16
9	50	38	30	25	47	35	28	24	31	25	21	27	23	19	24	20	17	15
10	47	35	27	22	44	33	26	21	29	23	19	25	21	17	22	18	15	13

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

	0°	45°	90°
0°	5054	5054	5054
5°	5064	4961	4977
10°	5029	4873	4865
15°	4969	4767	4723
20°	4888	4635	4581
25°	4792	4495	4406
30°	4676	4340	4247
35°	4567	4199	4102
40°	4457	4049	3955
45°	4331	3922	3825
50°	4213	3783	3710
55°	4069	3652	3575
60°	3913	3503	3437
65°	3749	3347	3282
70°	3561	3133	3123
75°	3269	2928	2928
80°	2884	2679	2713
85°	2526	2512	2645



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.0	1.9
10°-20°	210.1	5.4
20°-30°	312.4	8.0
30°-40°	370.1	9.5
40°-50°	382.6	9.8
50°-60°	352.5	9.0
60°-70°	284.9	7.3
70°-80°	190.8	4.9
80°-90°	100.0	2.6
90°-100°	73.0	1.9
100°-110°	148.8	3.8
110°-120°	223.0	5.7
120°-130°	266.6	6.8
130°-140°	276.8	7.1
140°-150°	254.8	6.5
150°-160°	205.0	5.3
160°-170°	132.6	3.4
170°-180°	45.7	1.2
0°-30°	596.5	15.3
0°-40°	966.6	24.8
0°-60°	1701.7	43.6
0°-90°	2277.4	58.3
90°-120°	444.9	11.4
90°-150°	1243.1	31.8
90°-180°	1626.0	41.7
0°-180°	3903.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	783	783	783	783	783	
5°	783	781	776	781	781	74
15°	747	748	743	747	744	210
25°	679	681	677	679	676	312
35°	588	593	591	593	593	368
45°	484	492	496	502	503	373
55°	372	384	397	405	408	333
65°	256	274	292	303	307	254
75°	141	161	186	200	205	150
85°	42	68	94	111	117	45
90°	13	40	69	87	94	9
95°	30	49	62	80	86	34
105°	112	126	149	163	169	119
115°	202	210	229	241	244	200
125°	283	286	300	311	314	253
135°	351	353	357	366	368	270
145°	406	406	406	410	411	254
155°	446	444	445	446	443	206
165°	471	469	469	471	468	133
175°	482	480	480	482	479	46
180°	482	482	482	482	482	



TEST NUMBER: P333163-840

CATALOG NUMBER: S125DIP-S610D365U840-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6
2.5°	784.5	784.2	784.0	783.7	783.4	782.7	781.8	780.8	779.9	778.9	779.9
5°	782.6	782.2	781.9	781.6	781.2	780.5	779.3	778.1	776.9	775.7	777.1
7.5°	775.7	775.6	775.5	775.3	775.2	774.5	773.3	772.0	770.8	769.6	770.7
10°	769.6	769.6	769.6	769.6	769.6	768.9	767.5	766.2	764.8	763.5	764.7
12.5°	761.0	761.1	761.2	761.4	761.5	761.0	759.9	758.9	757.8	756.7	757.6
15°	747.3	747.5	747.7	747.8	748.0	747.5	746.3	745.1	744.0	742.8	743.8
17.5°	729.5	729.8	730.2	730.5	730.9	730.4	729.3	728.1	726.9	725.7	726.5
20°	716.6	717.0	717.3	717.7	718.0	717.6	716.4	715.2	714.0	712.8	713.3
22.5°	702.0	702.6	703.2	703.8	704.4	704.0	702.7	701.4	700.0	698.7	699.3
25°	679.0	679.5	680.0	680.5	681.1	680.9	679.8	678.8	677.7	676.7	677.4
27.5°	653.6	654.3	655.1	655.8	656.6	656.4	655.2	654.1	652.9	651.8	652.2
30°	634.5	635.6	636.6	637.6	638.6	638.6	637.6	636.6	635.6	634.5	634.9
32.5°	617.3	618.2	619.1	620.1	620.9	621.0	620.3	619.5	618.7	617.9	618.3
35°	587.7	589.0	590.2	591.3	592.5	592.9	592.4	591.8	591.3	590.8	591.3
37.5°	558.2	559.3	560.3	561.4	562.5	562.9	562.8	562.6	562.4	562.3	562.9
40°	537.9	539.3	540.6	542.0	543.3	543.9	543.7	543.6	543.4	543.2	543.9
42.5°	515.7	517.6	519.3	521.1	522.9	523.9	524.3	524.7	525.0	525.4	526.2
45°	484.1	486.0	487.9	489.8	491.7	493.0	493.9	494.7	495.5	496.4	497.7
47.5°	451.8	453.5	455.2	457.0	458.8	460.3	461.8	463.2	464.7	466.2	468.0
50°	429.7	431.5	433.4	435.4	437.2	439.1	440.9	442.8	444.6	446.6	448.5
52.5°	406.4	408.6	410.9	413.2	415.5	417.8	420.1	422.3	424.6	426.9	428.9
55°	372.1	374.9	377.6	380.3	383.0	385.8	388.5	391.2	393.9	396.7	398.6
57.5°	337.2	340.4	343.7	347.0	350.2	353.5	356.6	359.7	362.8	366.0	368.1
60°	313.9	317.2	320.6	324.1	327.5	330.8	334.3	337.7	341.1	344.5	347.1
62.5°	291.1	294.5	297.9	301.3	304.8	308.3	311.9	315.7	319.3	323.1	325.9
65°	256.3	260.2	264.1	268.0	272.0	276.0	280.0	284.2	288.2	292.4	294.9
67.5°	223.5	227.2	231.0	234.8	238.5	242.6	246.7	250.9	255.0	259.2	262.3
70°	199.4	203.4	207.3	211.3	215.2	219.3	223.8	228.2	232.7	237.1	240.3
72.5°	176.1	180.3	184.3	188.3	192.4	196.8	201.7	206.5	211.4	216.2	219.7
75°	141.2	145.6	150.1	154.5	159.0	163.9	169.4	174.8	180.3	185.7	189.0
77.5°	107.6	112.7	117.9	122.9	128.1	133.2	138.5	143.7	149.0	154.2	157.9
80°	86.7	91.8	96.9	102.1	107.1	112.6	118.5	124.2	130.0	135.8	139.6
82.5°	67.7	73.0	78.5	83.8	89.3	94.9	100.8	106.7	112.7	118.7	122.2
85°	42.2	47.9	53.4	59.1	64.7	70.5	76.4	82.4	88.4	94.4	98.2
87.5°	24.0	29.6	35.1	40.8	46.4	52.1	58.0	63.9	69.8	75.7	79.7
90°	12.6	18.7	24.8	30.9	37.0	43.2	49.6	55.9	62.3	68.7	72.9
92.5°	16.6	21.1	25.8	30.4	34.9	40.5	46.9	53.3	59.8	66.1	70.4
95°	30.3	34.5	38.7	42.9	47.1	50.6	53.4	56.1	59.0	61.7	65.8
97.5°	51.5	55.9	60.4	64.8	69.2	71.2	70.9	70.5	70.1	69.8	71.1
100°	68.1	71.9	75.7	79.5	83.3	88.2	93.9	99.7	105.4	111.2	103.0
102.5°	84.8	88.5	92.1	95.7	99.3	103.8	109.4	114.9	120.4	125.9	127.1
105°	111.9	114.9	118.0	121.0	124.0	128.2	133.2	138.4	143.5	148.6	152.0
107.5°	140.0	142.2	144.5	146.8	149.2	152.9	157.9	163.0	168.1	173.2	176.5
110°	158.1	160.2	162.3	164.3	166.3	169.9	174.8	179.7	184.6	189.6	192.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	175.8	177.7	179.6	181.4	183.2	186.4	191.2	195.9	200.7	205.4	208.1
115°	201.7	203.3	204.8	206.4	208.0	211.1	215.6	220.0	224.6	229.1	231.9
117.5°	228.3	229.1	229.9	230.7	231.5	234.1	238.5	243.1	247.5	252.1	254.6
120°	245.5	245.9	246.4	246.8	247.2	249.5	253.7	257.8	262.0	266.2	268.9
122.5°	260.0	260.5	261.2	261.7	262.2	264.4	268.3	272.2	276.1	280.0	282.6
125°	283.3	283.7	284.1	284.5	284.8	286.7	290.1	293.6	297.0	300.3	302.8
127.5°	304.9	305.1	305.3	305.6	305.8	307.3	310.0	312.8	315.5	318.2	320.6
130°	318.6	318.8	319.0	319.2	319.5	320.8	323.3	325.8	328.2	330.7	332.9
132.5°	331.6	332.1	332.5	333.0	333.4	334.5	336.1	337.8	339.4	341.1	343.5
135°	351.0	351.3	351.6	351.9	352.2	352.9	354.0	355.0	356.0	357.1	359.1
137.5°	368.8	369.0	369.3	369.6	369.9	370.2	370.7	371.1	371.5	371.9	374.1
140°	379.9	380.0	380.2	380.3	380.5	380.6	380.7	380.8	380.9	381.0	383.0
142.5°	390.4	390.4	390.3	390.3	390.3	390.3	390.5	390.6	390.7	390.9	392.5
145°	406.0	406.0	405.9	405.9	405.9	405.9	405.9	405.9	405.9	405.9	406.8
147.5°	418.7	418.7	418.7	418.6	418.6	418.6	418.7	418.8	418.9	419.0	419.4
150°	427.3	427.2	427.0	426.8	426.7	426.7	426.8	427.0	427.2	427.3	427.5
152.5°	435.6	435.3	434.8	434.5	434.1	434.0	434.2	434.4	434.5	434.7	434.8
155°	446.3	445.8	445.2	444.7	444.3	444.1	444.3	444.4	444.6	444.7	445.0
157.5°	454.4	454.1	453.8	453.5	453.3	453.1	453.1	453.2	453.2	453.2	453.4
160°	460.1	459.7	459.2	458.7	458.3	458.1	458.1	458.2	458.3	458.4	458.7
162.5°	464.7	464.2	463.7	463.2	462.8	462.6	462.7	462.7	462.8	462.9	463.3
165°	470.8	470.4	469.9	469.4	469.0	468.8	468.8	468.9	469.0	469.1	469.5
167.5°	475.4	474.9	474.4	473.9	473.4	473.2	473.3	473.4	473.5	473.5	474.1
170°	478.0	477.5	476.9	476.4	475.7	475.5	475.6	475.6	475.7	475.8	476.5
172.5°	479.7	479.2	478.6	478.1	477.5	477.3	477.4	477.6	477.7	477.9	478.4
175°	481.5	481.1	480.6	480.1	479.7	479.5	479.5	479.6	479.7	479.8	480.4
177.5°	482.4	482.0	481.6	481.3	480.9	480.7	480.8	480.9	480.9	481.0	481.4
180°	481.5	481.5	481.5	481.5	481.5	481.5	481.5	481.5	481.5	481.5	481.5



TEST NUMBER: P333163-840

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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6
2.5°	780.8	781.8	782.7	783.2	783.0	782.9	782.7	782.6
5°	778.4	779.8	781.1	781.7	781.6	781.4	781.2	781.1
7.5°	771.9	773.2	774.4	774.9	774.7	774.6	774.4	774.2
10°	765.9	767.0	768.2	768.7	768.6	768.4	768.2	768.0
12.5°	758.5	759.4	760.4	760.6	760.1	759.7	759.3	758.8
15°	744.8	745.8	746.8	747.0	746.3	745.6	745.0	744.3
17.5°	727.3	728.0	728.8	729.0	728.6	728.2	727.8	727.4
20°	713.9	714.4	714.9	715.1	715.1	715.1	715.1	715.1
22.5°	699.9	700.6	701.3	701.4	700.9	700.5	700.1	699.7
25°	678.1	678.8	679.4	679.4	678.5	677.7	676.8	676.0
27.5°	652.7	653.2	653.7	653.7	653.4	653.1	652.8	652.5
30°	635.2	635.6	635.9	636.0	635.8	635.6	635.5	635.3
32.5°	618.6	618.9	619.4	619.5	619.2	619.0	618.9	618.7
35°	591.8	592.4	592.9	593.1	593.1	593.1	593.1	593.1
37.5°	563.6	564.3	565.0	565.3	565.2	565.1	565.1	565.0
40°	544.6	545.3	545.9	546.4	546.8	547.1	547.5	547.9
42.5°	527.0	527.9	528.7	529.2	529.3	529.3	529.4	529.5
45°	498.8	500.0	501.2	501.9	502.1	502.2	502.4	502.6
47.5°	469.7	471.4	473.1	474.2	474.6	474.9	475.3	475.7
50°	450.3	452.2	454.0	455.2	455.8	456.3	456.8	457.3
52.5°	430.9	432.9	434.9	436.2	436.6	436.9	437.3	437.7
55°	400.4	402.3	404.1	405.5	406.2	406.9	407.5	408.2
57.5°	370.3	372.4	374.6	375.9	376.5	377.0	377.5	378.0
60°	349.6	352.1	354.8	356.3	356.8	357.3	357.8	358.3
62.5°	328.7	331.5	334.4	336.1	336.7	337.4	338.0	338.7
65°	297.4	300.0	302.6	304.2	304.9	305.6	306.2	306.9
67.5°	265.4	268.5	271.6	273.6	274.5	275.4	276.3	277.1
70°	243.6	246.8	250.0	252.2	253.2	254.2	255.3	256.3
72.5°	223.3	226.7	230.2	232.4	233.2	233.9	234.7	235.4
75°	192.5	195.9	199.3	201.5	202.3	203.2	204.0	204.9
77.5°	161.7	165.5	169.3	171.5	172.1	172.8	173.5	174.2
80°	143.3	147.0	150.8	153.0	153.7	154.4	155.1	155.7
82.5°	125.8	129.5	133.1	135.5	136.7	137.9	139.2	140.4
85°	101.9	105.6	109.4	111.9	113.3	114.6	116.0	117.3
87.5°	83.7	87.8	91.7	94.3	95.6	96.8	98.1	99.3
90°	77.3	81.6	85.9	88.8	90.2	91.6	93.1	94.5
92.5°	74.5	78.8	82.9	85.6	86.9	88.3	89.6	90.9
95°	70.0	74.1	78.3	81.0	82.2	83.4	84.5	85.7
97.5°	72.4	73.7	75.1	76.3	77.6	78.7	79.9	81.0
100°	94.7	86.5	78.3	74.5	75.2	75.9	76.6	77.4
102.5°	128.4	129.6	130.8	129.2	124.8	120.4	116.0	111.7
105°	155.4	158.9	162.2	164.5	165.6	166.7	167.8	169.0
107.5°	180.0	183.4	186.7	188.8	189.7	190.5	191.3	192.1
110°	195.6	198.5	201.6	203.7	205.0	206.2	207.5	208.8





TEST NUMBER: P333163-840

CATALOG NUMBER: S125DIP-S610D365U840-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	211.0	213.8	216.6	218.5	219.6	220.7	221.8	222.9
115°	234.6	237.3	240.1	241.8	242.3	242.9	243.4	244.0
117.5°	257.0	259.5	262.0	263.7	264.7	265.6	266.6	267.5
120°	271.7	274.4	277.1	278.8	279.4	280.0	280.6	281.3
122.5°	285.2	287.8	290.4	292.0	292.6	293.2	293.7	294.3
125°	305.2	307.6	310.0	311.5	312.1	312.8	313.4	314.0
127.5°	323.0	325.3	327.7	329.0	329.4	329.8	330.2	330.6
130°	335.0	337.1	339.3	340.6	341.0	341.5	341.9	342.4
132.5°	345.8	348.1	350.4	351.7	352.1	352.4	352.7	353.0
135°	361.1	363.2	365.3	366.5	366.9	367.3	367.6	368.0
137.5°	376.1	378.1	380.1	381.3	381.6	381.8	382.1	382.4
140°	385.1	387.1	389.1	390.2	390.4	390.6	390.9	391.1
142.5°	394.2	395.8	397.5	398.4	398.6	398.8	399.0	399.2
145°	407.8	408.7	409.6	410.2	410.4	410.6	410.8	411.0
147.5°	419.7	420.1	420.5	420.5	420.3	420.0	419.7	419.5
150°	427.6	427.8	427.9	427.8	427.3	426.9	426.4	426.0
152.5°	435.0	435.2	435.4	435.2	434.6	434.0	433.5	433.0
155°	445.2	445.5	445.8	445.6	444.9	444.2	443.6	443.0
157.5°	453.7	453.9	454.2	454.0	453.4	452.7	452.1	451.5
160°	459.0	459.3	459.6	459.5	458.8	458.2	457.6	457.0
162.5°	463.8	464.2	464.7	464.5	463.8	463.1	462.5	461.8
165°	470.0	470.5	471.0	470.9	470.3	469.6	469.0	468.4
167.5°	474.7	475.2	475.8	475.7	475.0	474.3	473.6	472.9
170°	477.1	477.8	478.4	478.4	477.7	477.0	476.2	475.4
172.5°	479.0	479.6	480.1	480.1	479.4	478.6	477.9	477.2
175°	481.0	481.7	482.3	482.3	481.5	480.8	480.1	479.4
177.5°	481.9	482.3	482.7	482.7	482.2	481.7	481.2	480.7
180°	481.5	481.5	481.5	481.5	481.5	481.5	481.5	481.5

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