

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: P333181-840

Luminaire Tested: **S125DIP-S610D810U840-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333181-840
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-S610D810U840-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 610 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5697.9 lumens
Efficiency: N/A
Efficacy: 148.4 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-Indirect

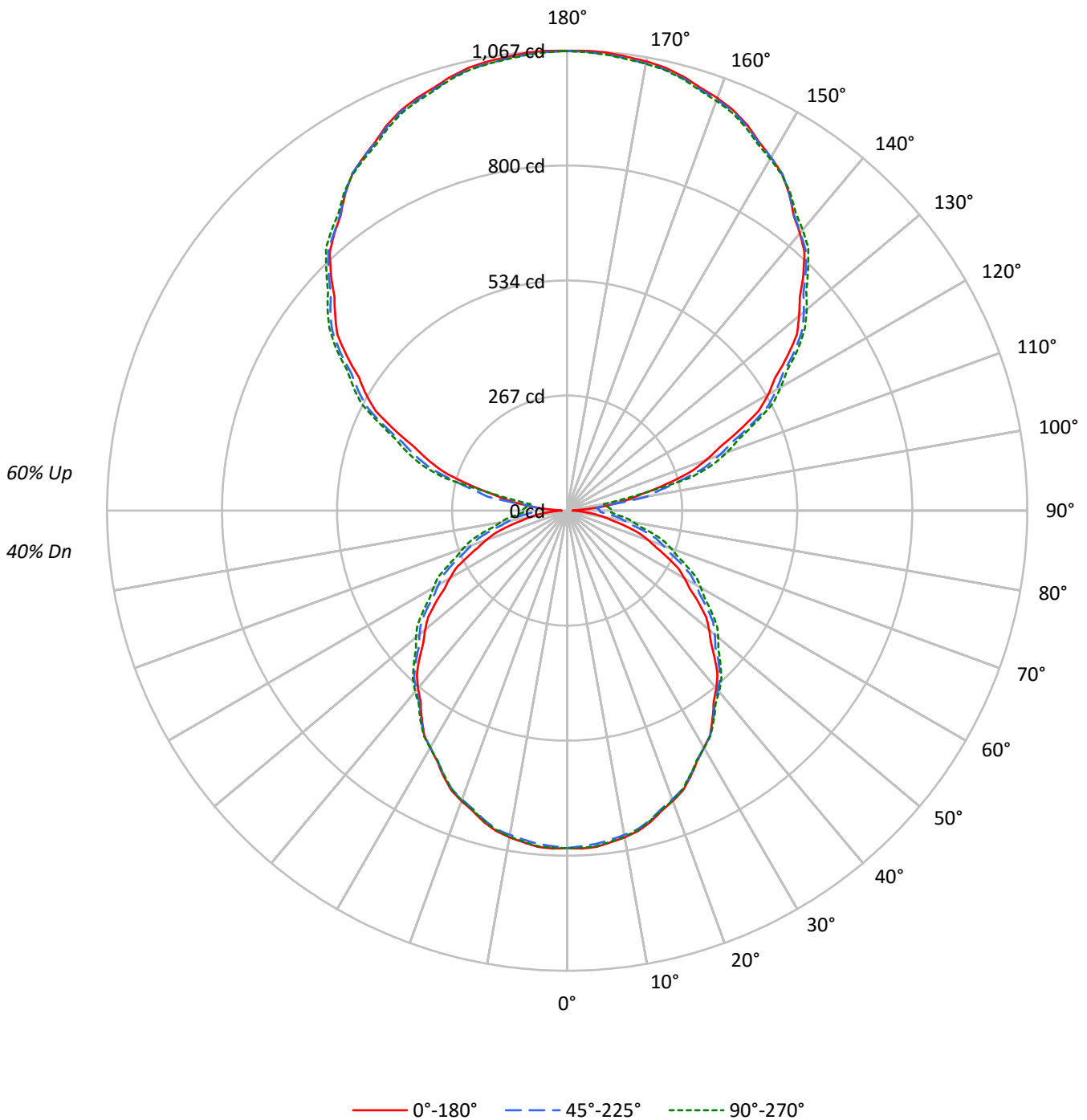
Input Watts (W): 38.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333181-840

CATALOG NUMBER: S125DIP-S610D810U840-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P333181-840

CATALOG NUMBER: S125DIP-S610D810U840-4F0-1E-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	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	95	90	86	83	86	82	79	76	67	65	63	53	52	50	41	39	38	32
2	86	79	72	67	78	72	66	62	59	55	51	46	44	41	35	33	32	27
3	78	69	61	56	71	63	56	51	51	47	43	41	38	35	31	29	27	22
4	72	61	53	47	65	55	49	43	46	40	36	36	33	30	28	25	23	19
5	66	54	46	40	59	49	42	37	41	35	31	32	29	25	25	22	20	16
6	60	48	40	34	55	44	37	32	36	31	27	29	25	22	22	20	17	14
7	56	43	36	30	51	40	33	28	33	28	24	27	23	20	20	18	15	13
8	52	39	32	26	47	36	29	25	30	25	21	24	20	17	19	16	14	11
9	48	36	28	23	44	33	26	22	27	22	19	22	18	15	17	14	12	10
10	45	33	26	21	41	30	24	19	25	20	17	21	17	14	16	13	11	9

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



TEST NUMBER: P333181-840

CATALOG NUMBER: S125DIP-S610D810U840-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.0	1.3
10°-20°	210.1	3.7
20°-30°	312.4	5.5
30°-40°	370.1	6.5
40°-50°	382.6	6.7
50°-60°	352.5	6.2
60°-70°	284.9	5.0
70°-80°	190.8	3.3
80°-90°	101.2	1.8
90°-100°	94.2	1.7
100°-110°	279.5	4.9
110°-120°	460.2	8.1
120°-130°	571.0	10.0
130°-140°	604.2	10.6
140°-150°	562.1	9.9
150°-160°	453.6	8.0
160°-170°	293.3	5.1
170°-180°	101.2	1.8
0°-30°	596.5	10.5
0°-40°	966.6	17.0
0°-60°	1701.7	29.9
0°-90°	2278.6	40.0
90°-120°	834.0	14.6
90°-150°	2571.2	45.1
90°-180°	3419.0	60.0
0°-180°	5697.9	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	44	76	96	105	10
95°	55	71	69	89	95	65
105°	239	255	278	292	298	253
115°	440	451	471	481	481	437
125°	623	628	643	652	654	556
135°	775	779	782	790	790	597
145°	897	898	898	902	901	561
155°	987	983	984	986	980	455
165°	1042	1037	1038	1042	1036	294
175°	1065	1061	1062	1067	1061	101
180°	1065	1065	1065	1065	1065	



TEST NUMBER: P333181-840

CATALOG NUMBER: S125DIP-S610D810U840-4F0-1E-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°	24.1	29.8	35.5	41.3	47.1	52.9	59.0	65.0	71.1	77.2	81.2
90°	13.0	19.9	26.8	33.6	40.5	47.5	54.4	61.5	68.6	75.5	80.4
92.5°	23.2	27.3	31.3	35.4	39.5	45.0	52.0	59.1	66.0	73.1	77.8
95°	55.0	58.9	62.8	66.8	70.6	72.1	71.3	70.4	69.5	68.7	73.3
97.5°	103.0	108.0	112.9	117.9	122.8	121.5	113.8	106.2	98.7	91.0	89.7
100°	140.4	144.4	148.6	152.7	156.7	161.9	168.0	174.2	180.4	186.5	164.0
102.5°	178.2	182.3	186.2	190.2	194.2	199.0	204.8	210.5	216.2	222.0	220.5
105°	239.1	242.6	246.0	249.3	252.8	257.1	262.2	267.3	272.5	277.5	280.9
107.5°	302.3	304.6	306.9	309.2	311.5	315.4	320.6	325.9	331.1	336.4	339.8
110°	343.4	345.5	347.5	349.5	351.5	355.2	360.3	365.4	370.5	375.7	378.4



TEST NUMBER: P333181-840

CATALOG NUMBER: S125DIP-S610D810U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	382.5	384.7	386.7	388.7	390.8	394.3	399.1	403.9	408.8	413.6	416.1
115°	440.5	442.6	444.6	446.8	448.9	452.2	456.8	461.4	466.0	470.6	473.0
117.5°	500.6	501.3	502.1	502.8	503.6	506.4	511.3	516.1	521.0	525.8	527.9
120°	538.5	538.9	539.2	539.5	539.9	542.2	546.6	551.2	555.6	560.1	562.6
122.5°	571.4	572.3	573.2	574.1	575.0	577.4	581.5	585.5	589.6	593.6	596.0
125°	623.0	624.1	625.1	626.2	627.2	629.4	632.9	636.3	639.7	643.2	645.2
127.5°	671.7	672.4	673.1	673.8	674.5	676.2	678.9	681.7	684.3	687.0	689.1
130°	702.1	702.8	703.5	704.2	704.9	706.5	709.0	711.7	714.2	716.7	718.6
132.5°	731.7	732.8	733.7	734.7	735.7	736.9	738.3	739.8	741.2	742.8	745.0
135°	774.7	775.6	776.5	777.4	778.2	779.1	779.9	780.8	781.6	782.4	784.4
137.5°	814.2	815.0	815.8	816.6	817.3	817.8	818.1	818.4	818.6	818.9	820.9
140°	839.5	839.8	840.2	840.5	840.9	841.1	841.0	841.0	841.0	841.0	843.2
142.5°	862.8	862.9	863.0	863.1	863.1	863.3	863.6	863.9	864.1	864.4	866.2
145°	897.2	897.4	897.5	897.7	897.9	898.0	898.0	898.0	898.0	898.0	899.0
147.5°	926.3	926.3	926.2	926.1	926.1	926.1	926.3	926.6	926.9	927.1	927.5
150°	945.3	945.0	944.6	944.3	943.9	943.9	944.3	944.6	945.0	945.3	945.7
152.5°	963.7	962.9	962.1	961.4	960.6	960.4	960.7	961.1	961.4	961.8	962.1
155°	987.2	986.1	985.1	984.0	983.0	982.6	983.0	983.3	983.7	984.0	984.5
157.5°	1005.3	1004.7	1004.1	1003.5	1002.8	1002.5	1002.6	1002.6	1002.6	1002.7	1003.2
160°	1018.0	1016.9	1015.9	1014.8	1013.8	1013.4	1013.5	1013.7	1013.9	1014.0	1014.7
162.5°	1028.1	1027.0	1026.0	1024.9	1023.9	1023.5	1023.6	1023.8	1024.0	1024.2	1025.1
165°	1041.7	1040.7	1039.6	1038.5	1037.4	1037.0	1037.2	1037.4	1037.5	1037.7	1038.8
167.5°	1051.8	1050.8	1049.7	1048.5	1047.4	1047.0	1047.1	1047.3	1047.5	1047.7	1048.9
170°	1057.5	1056.2	1055.0	1053.8	1052.6	1052.1	1052.2	1052.4	1052.6	1052.8	1054.2
172.5°	1061.3	1060.1	1058.8	1057.6	1056.3	1055.9	1056.2	1056.5	1056.8	1057.1	1058.4
175°	1065.4	1064.3	1063.3	1062.3	1061.2	1060.8	1060.9	1061.1	1061.3	1061.5	1062.9
177.5°	1067.3	1066.4	1065.6	1064.8	1063.9	1063.6	1063.7	1063.8	1064.0	1064.1	1065.1
180°	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4



TEST NUMBER: P333181-840

CATALOG NUMBER: S125DIP-S610D810U840-4F0-1E-UDD-D

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°	85.3	89.4	93.5	96.2	97.5	98.8	100.1	101.4
90°	85.1	90.0	94.7	98.1	99.8	101.5	103.2	104.9
92.5°	82.4	87.1	91.8	94.8	96.2	97.7	99.1	100.6
95°	77.9	82.5	87.2	90.1	91.3	92.5	93.6	94.8
97.5°	88.3	86.9	85.5	85.4	86.6	87.8	89.0	90.1
100°	141.4	118.9	96.2	85.1	85.4	85.7	86.0	86.4
102.5°	218.9	217.4	215.9	209.7	198.8	187.9	177.0	166.1
105°	284.4	287.8	291.1	293.4	294.4	295.5	296.5	297.5
107.5°	343.3	346.7	350.0	352.0	352.5	353.0	353.7	354.2
110°	381.1	383.7	386.5	388.6	389.9	391.3	392.6	394.0



TEST NUMBER: P333181-840

CATALOG NUMBER: S125DIP-S610D810U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	418.5	420.9	423.3	425.1	426.1	427.0	427.9	428.9
115°	475.3	477.7	480.1	481.2	481.2	481.2	481.2	481.1
117.5°	529.8	531.8	533.8	535.1	535.8	536.5	537.2	538.0
120°	565.1	567.6	570.3	571.6	571.7	571.9	572.0	572.2
122.5°	598.4	600.9	603.2	604.4	604.4	604.4	604.5	604.5
125°	647.2	649.2	651.3	652.4	652.8	653.1	653.4	653.7
127.5°	691.3	693.4	695.5	696.5	696.1	695.8	695.5	695.2
130°	720.4	722.4	724.2	725.1	725.1	725.1	725.0	725.0
132.5°	747.3	749.5	751.8	753.0	752.8	752.6	752.5	752.2
135°	786.2	788.1	789.9	790.7	790.5	790.3	790.1	789.9
137.5°	823.0	825.2	827.2	828.1	827.9	827.7	827.5	827.2
140°	845.5	847.7	850.0	850.9	850.5	850.1	849.8	849.4
142.5°	867.8	869.5	871.1	871.8	871.4	871.1	870.7	870.3
145°	900.0	901.0	902.1	902.4	902.0	901.6	901.3	900.9
147.5°	928.0	928.5	929.0	928.7	927.8	926.9	925.8	924.9
150°	946.0	946.4	946.7	946.3	945.0	943.8	942.6	941.4
152.5°	962.5	962.8	963.2	962.7	961.5	960.3	959.1	957.9
155°	985.1	985.6	986.1	985.7	984.3	982.9	981.5	980.1
157.5°	1003.8	1004.4	1004.9	1004.5	1003.1	1001.7	1000.3	998.9
160°	1015.4	1016.1	1016.8	1016.5	1015.1	1013.7	1012.3	1010.9
162.5°	1026.1	1027.1	1028.0	1027.8	1026.2	1024.7	1023.2	1021.7
165°	1039.9	1040.9	1042.0	1041.8	1040.4	1038.9	1037.5	1036.1
167.5°	1050.3	1051.5	1052.8	1052.6	1051.0	1049.5	1047.8	1046.3
170°	1055.5	1056.9	1058.3	1058.2	1056.7	1055.1	1053.5	1052.0
172.5°	1059.7	1061.0	1062.3	1062.1	1060.5	1058.9	1057.3	1055.7
175°	1064.2	1065.6	1067.0	1066.9	1065.4	1063.8	1062.3	1060.7
177.5°	1066.1	1067.0	1068.0	1068.0	1066.8	1065.7	1064.6	1063.5
180°	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4

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