

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

Luminaire Tested: **S125DIP-S610D810U835-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333181  
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-S610D810U835-4F0-1E-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**

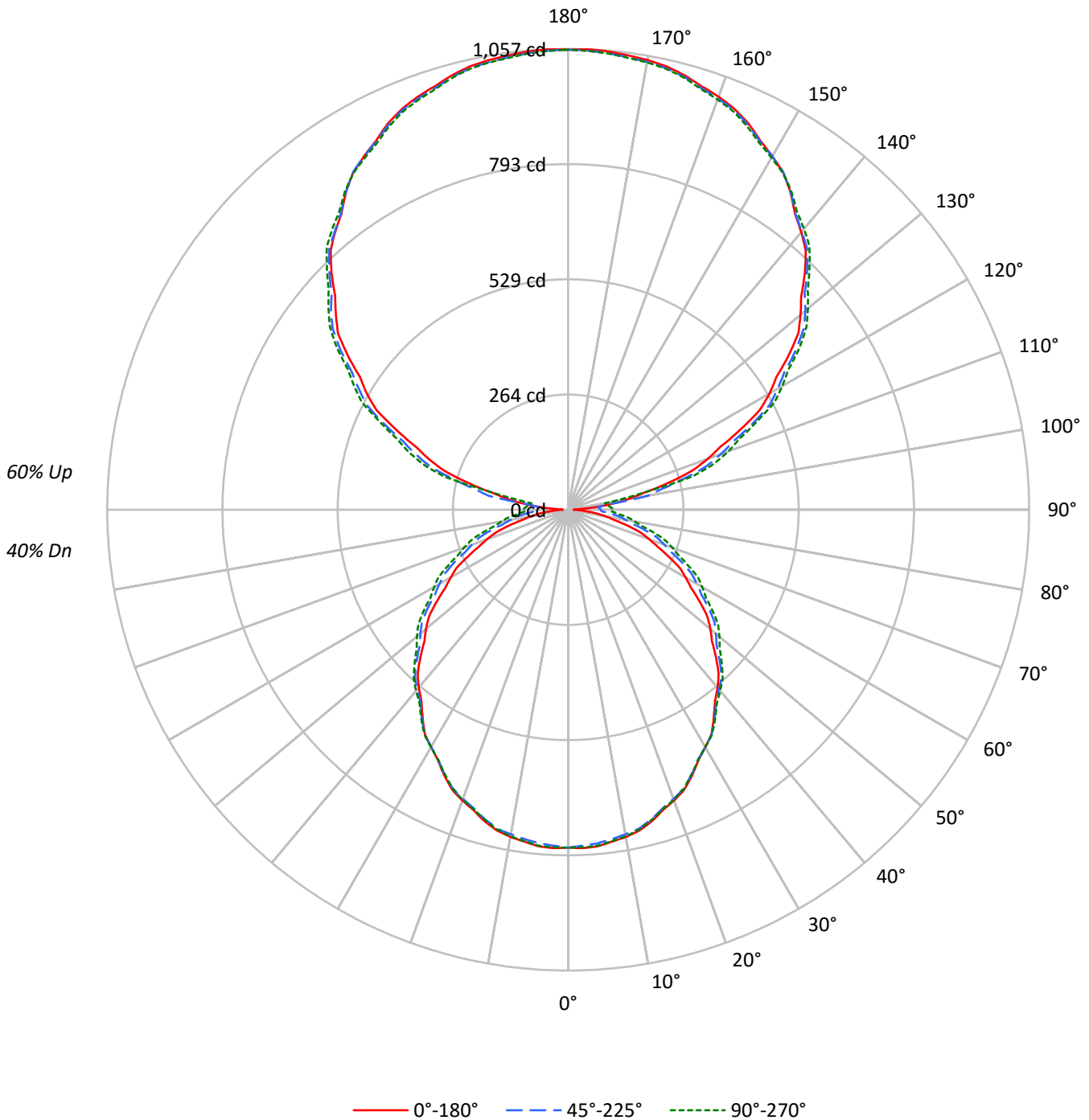
Lumens per Lamp: N/A  
Luminaire Lumens: 5642.2 lumens  
Efficiency: N/A  
Efficacy: 146.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: Semi-Indirect

Input Watts (W): 38.4  
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: P333181  
CATALOG NUMBER: S125DIP-S610D810U835-4F0-1E-UDD-D

### Luminous Intensity Polar Plot





TEST NUMBER: P333181

CATALOG NUMBER: S125DIP-S610D810U835-4F0-1E-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°	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: P333181

CATALOG NUMBER: S125DIP-S610D810U835-4F0-1E-UDD-D

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.3	1.3
10°-20°	208.0	3.7
20°-30°	309.4	5.5
30°-40°	366.5	6.5
40°-50°	378.9	6.7
50°-60°	349.0	6.2
60°-70°	282.1	5.0
70°-80°	189.0	3.3
80°-90°	100.2	1.8
90°-100°	93.3	1.7
100°-110°	276.8	4.9
110°-120°	455.7	8.1
120°-130°	565.4	10.0
130°-140°	598.3	10.6
140°-150°	556.6	9.9
150°-160°	449.1	8.0
160°-170°	290.5	5.1
170°-180°	100.2	1.8
0°-30°	590.7	10.5
0°-40°	957.1	17.0
0°-60°	1685.1	29.9
0°-90°	2256.3	40.0
90°-120°	825.8	14.6
90°-150°	2546.1	45.1
90°-180°	3386.0	60.0
0°-180°	5642.2	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	44	75	95	104	10
95°	54	71	68	88	94	65
105°	237	252	275	289	295	251
115°	436	446	466	476	476	432
125°	617	622	637	645	647	551
135°	767	771	775	783	782	591
145°	888	889	889	893	892	555
155°	978	973	974	976	970	450
165°	1032	1027	1028	1032	1026	291
175°	1055	1051	1051	1057	1050	100
180°	1055	1055	1055	1055	1055	



TEST NUMBER: P333181

CATALOG NUMBER: S125DIP-S610D810U835-4F0-1E-UDD-D

**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°	23.9	29.5	35.2	40.9	46.6	52.4	58.4	64.4	70.4	76.4	80.4
90°	12.9	19.7	26.5	33.3	40.1	47.0	53.9	60.9	67.9	74.8	79.6
92.5°	23.0	27.0	31.0	35.1	39.1	44.6	51.5	58.5	65.4	72.4	77.0
95°	54.5	58.3	62.2	66.1	69.9	71.4	70.6	69.7	68.8	68.0	72.6
97.5°	102.0	106.9	111.8	116.7	121.6	120.3	112.7	105.2	97.7	90.1	88.8
100°	139.0	143.0	147.1	151.2	155.2	160.3	166.4	172.5	178.6	184.7	162.4
102.5°	176.5	180.5	184.4	188.3	192.3	197.1	202.8	208.4	214.1	219.8	218.3
105°	236.8	240.2	243.6	246.9	250.3	254.6	259.6	264.7	269.8	274.8	278.2
107.5°	299.3	301.6	303.9	306.2	308.5	312.3	317.5	322.7	327.9	333.1	336.5
110°	340.0	342.1	344.1	346.1	348.1	351.7	356.8	361.8	366.9	372.0	374.7



TEST NUMBER: P333181

CATALOG NUMBER: S125DIP-S610D810U835-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	378.8	380.9	382.9	384.9	387.0	390.4	395.2	400.0	404.8	409.6	412.0
115°	436.2	438.3	440.3	442.4	444.5	447.8	452.3	456.9	461.4	466.0	468.4
117.5°	495.7	496.4	497.2	497.9	498.7	501.5	506.3	511.1	515.9	520.7	522.7
120°	533.2	533.6	533.9	534.2	534.6	536.9	541.3	545.8	550.2	554.6	557.1
122.5°	565.8	566.7	567.6	568.5	569.4	571.8	575.8	579.8	583.8	587.8	590.2
125°	616.9	618.0	619.0	620.1	621.1	623.3	626.7	630.1	633.5	636.9	638.9
127.5°	665.1	665.8	666.5	667.2	667.9	669.6	672.3	675.0	677.6	680.3	682.4
130°	695.2	695.9	696.6	697.3	698.0	699.6	702.1	704.7	707.2	709.7	711.6
132.5°	724.6	725.6	726.5	727.5	728.5	729.7	731.1	732.6	734.0	735.5	737.7
135°	767.1	768.0	768.9	769.8	770.6	771.5	772.3	773.2	774.0	774.8	776.7
137.5°	806.2	807.0	807.8	808.6	809.3	809.8	810.1	810.4	810.6	810.9	812.9
140°	831.3	831.6	832.0	832.3	832.7	832.9	832.8	832.8	832.8	832.8	835.0
142.5°	854.4	854.5	854.6	854.7	854.7	854.9	855.2	855.5	855.7	856.0	857.7
145°	888.4	888.6	888.7	888.9	889.1	889.2	889.2	889.2	889.2	889.2	890.2
147.5°	917.3	917.3	917.2	917.1	917.1	917.1	917.3	917.5	917.8	918.0	918.4
150°	936.1	935.8	935.4	935.1	934.7	934.7	935.1	935.4	935.8	936.1	936.5
152.5°	954.3	953.5	952.7	952.0	951.2	951.0	951.3	951.7	952.0	952.4	952.7
155°	977.6	976.5	975.5	974.4	973.4	973.0	973.4	973.7	974.1	974.4	974.9
157.5°	995.5	994.9	994.3	993.7	993.0	992.7	992.8	992.8	992.8	992.9	993.4
160°	1008.1	1007.0	1006.0	1004.9	1003.9	1003.5	1003.6	1003.8	1004.0	1004.1	1004.8
162.5°	1018.1	1017.0	1016.0	1014.9	1013.9	1013.5	1013.6	1013.8	1014.0	1014.2	1015.1
165°	1031.5	1030.5	1029.4	1028.4	1027.3	1026.9	1027.1	1027.3	1027.4	1027.6	1028.7
167.5°	1041.5	1040.5	1039.4	1038.3	1037.2	1036.8	1036.9	1037.1	1037.3	1037.5	1038.7
170°	1047.2	1045.9	1044.7	1043.5	1042.3	1041.8	1041.9	1042.1	1042.3	1042.5	1043.9
172.5°	1050.9	1049.7	1048.5	1047.3	1046.0	1045.6	1045.9	1046.2	1046.5	1046.8	1048.1
175°	1055.0	1053.9	1052.9	1051.9	1050.8	1050.4	1050.5	1050.7	1050.9	1051.1	1052.5
177.5°	1056.9	1056.0	1055.2	1054.4	1053.5	1053.2	1053.3	1053.4	1053.6	1053.7	1054.7
180°	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0



TEST NUMBER: P333181

CATALOG NUMBER: S125DIP-S610D810U835-4F0-1E-UDD-D

**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°	84.5	88.5	92.6	95.3	96.5	97.8	99.1	100.4
90°	84.3	89.1	93.8	97.1	98.8	100.5	102.2	103.9
92.5°	81.6	86.2	90.9	93.9	95.3	96.7	98.1	99.6
95°	77.1	81.7	86.3	89.2	90.4	91.6	92.7	93.9
97.5°	87.4	86.1	84.7	84.6	85.8	86.9	88.1	89.2
100°	140.0	117.7	95.3	84.3	84.6	84.9	85.2	85.6
102.5°	216.8	215.3	213.8	207.7	196.9	186.1	175.3	164.5
105°	281.6	285.0	288.3	290.5	291.5	292.6	293.6	294.6
107.5°	339.9	343.3	346.6	348.6	349.1	349.6	350.2	350.7
110°	377.4	380.0	382.7	384.8	386.1	387.5	388.8	390.2





TEST NUMBER: P333181

CATALOG NUMBER: S125DIP-S610D810U835-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	414.4	416.8	419.2	420.9	421.9	422.8	423.7	424.7
115°	470.7	473.0	475.4	476.5	476.5	476.5	476.5	476.4
117.5°	524.6	526.6	528.6	529.9	530.6	531.3	532.0	532.7
120°	559.6	562.1	564.7	566.0	566.1	566.3	566.4	566.6
122.5°	592.6	595.0	597.3	598.5	598.5	598.5	598.6	598.6
125°	640.9	642.9	644.9	646.0	646.4	646.7	647.0	647.3
127.5°	684.5	686.6	688.7	689.7	689.3	689.0	688.7	688.4
130°	713.4	715.3	717.1	718.0	718.0	718.0	717.9	717.9
132.5°	740.0	742.2	744.5	745.6	745.4	745.2	745.1	744.9
135°	778.5	780.4	782.2	783.0	782.8	782.6	782.4	782.2
137.5°	815.0	817.1	819.1	820.0	819.8	819.6	819.4	819.1
140°	837.2	839.4	841.7	842.6	842.2	841.8	841.5	841.1
142.5°	859.3	861.0	862.6	863.3	862.9	862.6	862.2	861.8
145°	891.2	892.2	893.3	893.6	893.2	892.8	892.5	892.1
147.5°	918.9	919.4	919.9	919.6	918.7	917.8	916.8	915.9
150°	936.8	937.2	937.5	937.1	935.8	934.6	933.4	932.2
152.5°	953.1	953.4	953.8	953.3	952.1	950.9	949.7	948.5
155°	975.5	976.0	976.5	976.1	974.7	973.3	971.9	970.5
157.5°	994.0	994.6	995.1	994.7	993.3	991.9	990.5	989.1
160°	1005.5	1006.2	1006.9	1006.6	1005.2	1003.8	1002.4	1001.0
162.5°	1016.1	1017.1	1018.0	1017.8	1016.2	1014.7	1013.2	1011.7
165°	1029.7	1030.7	1031.8	1031.6	1030.2	1028.8	1027.4	1026.0
167.5°	1040.0	1041.2	1042.5	1042.3	1040.7	1039.2	1037.6	1036.1
170°	1045.2	1046.6	1048.0	1047.9	1046.4	1044.8	1043.2	1041.7
172.5°	1049.3	1050.6	1051.9	1051.7	1050.1	1048.6	1047.0	1045.4
175°	1053.8	1055.2	1056.6	1056.5	1055.0	1053.4	1051.9	1050.3
177.5°	1055.7	1056.6	1057.6	1057.6	1056.4	1055.3	1054.2	1053.1
180°	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0

(END OF REPORT)