

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: P331890-830

Luminaire Tested: **S123DIP-S340D805U830-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331890-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-9,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S340D805U830-4F0-1E-UDD-F1
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 340 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 805 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3931.0 lumens
Efficiency: N/A
Efficacy: 126.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Semi-Indirect

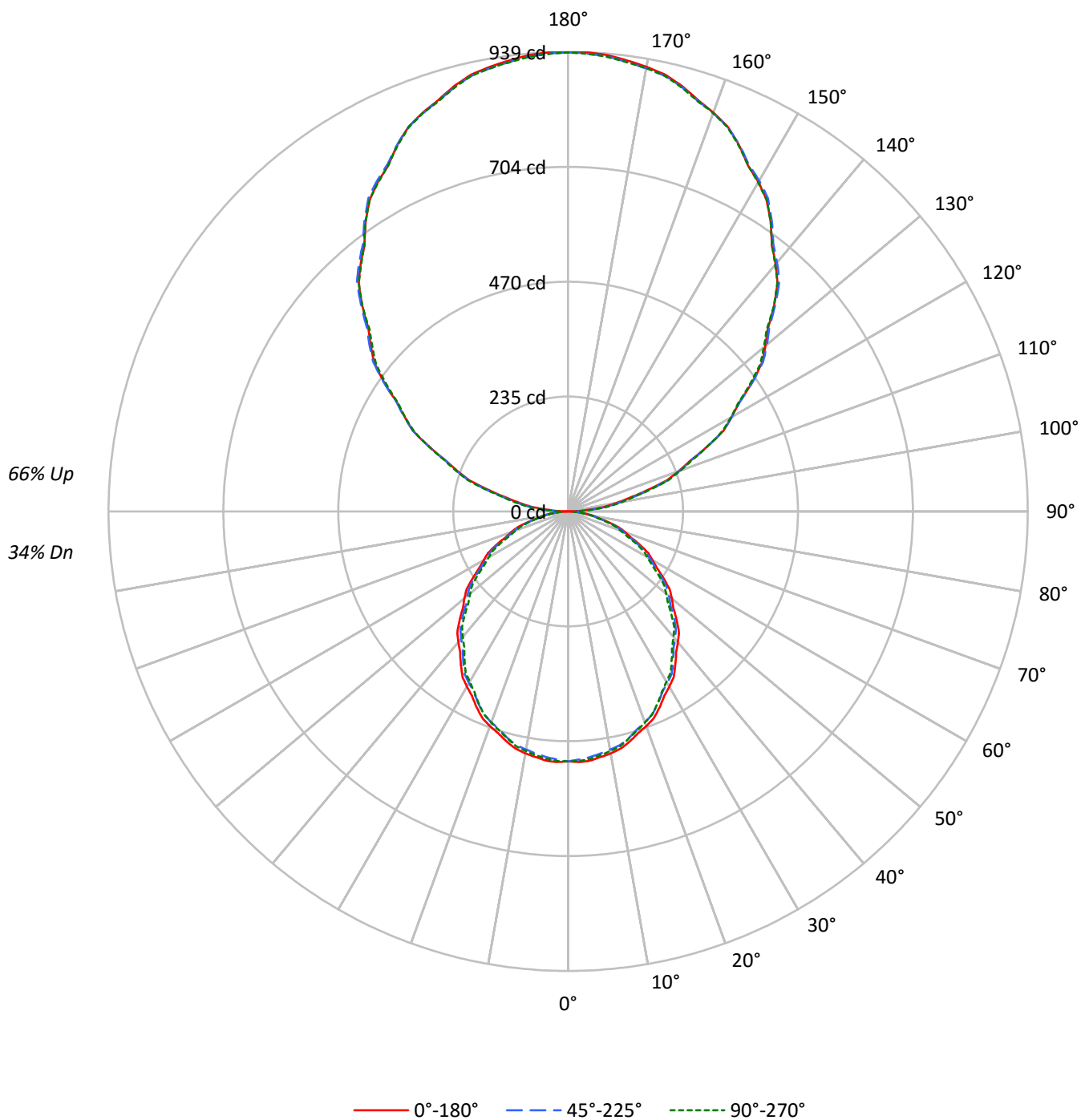
Input Watts (W): 31.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P331890-830

CATALOG NUMBER: S123DIP-S340D805U830-4F0-1E-UDD-F1

Luminous Intensity Polar Plot



TEST NUMBER: P331890-830

CATALOG NUMBER: S123DIP-S340D805U830-4F0-1E-UDD-F1

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	103	103	103	103	93	93	93	93	74	74	74		57	57	57		41
1	94	90	86	83	85	81	78	75	65	63	61		50	49	47		36
2	86	78	72	67	77	71	66	62	57	53	50		44	42	39		32
3	78	69	62	56	70	62	56	51	50	46	42		39	36	33		28
4	71	61	53	47	64	55	49	43	44	40	36		35	31	28		25
5	65	54	46	40	59	49	42	37	40	35	31		31	27	25		23
6	60	48	40	35	54	44	37	32	36	31	27		28	24	21		21
7	56	44	36	30	50	40	33	28	32	27	23		25	22	19		19
8	51	39	32	27	46	36	29	25	29	24	21		23	19	17		17
9	48	36	29	24	43	33	26	22	27	22	18		21	18	15		16
10	45	33	26	21	40	30	24	20	25	20	17		20	16	14		15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5498	5498	5498
5°	5524	5448	5486
10°	5487	5400	5434
15°	5422	5340	5349
20°	5347	5252	5257
25°	5247	5149	5138
30°	5137	5033	4994
35°	5021	4911	4847
40°	4900	4776	4703
45°	4766	4654	4539
50°	4632	4501	4376
55°	4459	4344	4211
60°	4284	4159	4028
65°	4126	3958	3836
70°	3899	3733	3566
75°	3564	3435	3290
80°	3211	3081	3050
85°	2816	2717	2606

TEST NUMBER: P331890-830

CATALOG NUMBER: S123DIP-S340D805U830-4F0-1E-UDD-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.1	1.2
10°-20°	135.9	3.5
20°-30°	200.7	5.1
30°-40°	234.4	6.0
40°-50°	235.7	6.0
50°-60°	207.0	5.3
60°-70°	154.2	3.9
70°-80°	87.9	2.2
80°-90°	28.0	0.7
90°-100°	61.1	1.6
100°-110°	182.9	4.7
110°-120°	311.1	7.9
120°-130°	409.2	10.4
130°-140°	460.0	11.7
140°-150°	452.1	11.5
150°-160°	380.6	9.7
160°-170°	253.4	6.4
170°-180°	88.7	2.3
0°-30°	384.6	9.8
0°-40°	619.1	15.7
0°-60°	1061.7	27.0
0°-90°	1331.8	33.9
90°-120°	555.1	14.1
90°-150°	1876.4	47.7
90°-180°	2599.0	66.1
0°-180°	3931.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	511	511	511	511	511	
5°	511	509	504	508	508	48
15°	487	485	479	482	480	137
25°	442	439	434	434	433	203
35°	382	379	374	371	369	239
45°	313	311	306	301	298	242
55°	238	237	232	227	224	213
65°	162	160	155	152	151	160
75°	86	84	83	80	79	92
85°	23	22	22	21	21	25
90°	1	8	18	21	22	4
95°	44	49	55	57	58	49
105°	166	168	174	174	175	178
115°	313	315	314	315	314	310
125°	458	460	459	456	453	409
135°	595	599	598	596	594	458
145°	721	723	725	724	721	450
155°	826	826	827	829	825	380
165°	900	898	898	901	897	254
175°	936	933	933	937	932	89
180°	938	938	938	938	938	

TEST NUMBER: P331890-830

CATALOG NUMBER: S123DIP-S340D805U830-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	510.8	510.8	510.8	510.8	510.8	510.8	510.8	510.8	510.8	510.8	510.8
2.5°	512.6	512.2	511.9	511.6	511.2	510.7	509.8	509.0	508.1	507.3	508.0
5°	511.2	510.7	510.2	509.7	509.3	508.5	507.4	506.3	505.2	504.2	505.1
7.5°	506.2	505.7	505.2	504.7	504.3	503.4	502.4	501.2	500.1	499.0	499.8
10°	502.0	501.5	501.0	500.5	500.0	499.2	497.9	496.6	495.3	494.1	494.9
12.5°	496.3	496.0	495.5	495.1	494.7	493.9	492.8	491.5	490.3	489.2	489.8
15°	486.6	486.3	485.8	485.4	485.0	484.2	483.0	481.6	480.4	479.2	479.9
17.5°	475.2	474.8	474.3	473.7	473.3	472.4	471.1	469.9	468.5	467.3	467.8
20°	466.8	466.3	465.7	465.1	464.5	463.5	462.3	461.0	459.8	458.5	458.9
22.5°	457.3	456.8	456.2	455.6	455.1	454.1	452.8	451.6	450.3	449.0	449.3
25°	441.8	441.2	440.6	440.1	439.5	438.6	437.2	436.0	434.7	433.5	433.6
27.5°	425.2	424.6	424.0	423.5	422.9	422.0	420.7	419.2	417.9	416.5	416.6
30°	413.3	412.7	412.3	411.8	411.3	410.4	409.1	407.6	406.3	404.9	404.9
32.5°	401.3	400.7	400.0	399.4	398.8	397.8	396.8	395.8	394.7	393.7	393.1
35°	382.1	381.5	380.9	380.3	379.8	378.8	377.6	376.3	375.0	373.7	373.2
37.5°	362.4	361.7	360.9	360.1	359.5	358.4	357.1	355.8	354.6	353.3	352.6
40°	348.7	348.1	347.5	346.9	346.4	345.3	344.0	342.6	341.3	339.9	339.1
42.5°	335.0	334.3	333.7	333.0	332.3	331.3	330.0	328.6	327.3	325.8	325.1
45°	313.1	312.7	312.4	312.0	311.6	310.8	309.4	308.2	306.9	305.7	304.5
47.5°	291.4	290.9	290.3	289.7	289.2	288.3	287.1	285.9	284.7	283.5	282.4
50°	276.6	276.2	275.7	275.2	274.8	273.8	272.6	271.4	270.0	268.8	267.7
52.5°	261.2	260.9	260.5	260.2	259.9	259.0	257.7	256.4	255.1	253.6	252.8
55°	237.6	237.5	237.4	237.3	237.2	236.5	235.3	233.9	232.7	231.5	230.4
57.5°	215.1	214.8	214.4	214.1	213.8	213.1	212.1	211.0	210.1	209.1	208.1
60°	199.0	198.9	198.8	198.7	198.6	197.9	196.7	195.6	194.4	193.2	192.4
62.5°	184.5	184.3	184.1	183.8	183.5	182.9	181.6	180.5	179.3	178.1	177.3
65°	162.0	161.6	161.1	160.6	160.1	159.4	158.4	157.4	156.5	155.4	154.7
67.5°	138.3	137.8	137.4	137.0	136.6	135.9	135.3	134.5	133.7	133.0	132.3
70°	123.9	123.3	122.7	122.1	121.5	120.9	120.4	119.7	119.1	118.6	117.9
72.5°	108.8	108.3	107.9	107.4	107.0	106.5	105.8	105.2	104.5	103.9	103.2
75°	85.7	85.2	84.8	84.5	84.1	83.7	83.4	83.1	82.8	82.6	82.1
77.5°	65.1	64.9	64.8	64.6	64.3	64.0	63.7	63.3	63.0	62.6	62.3
80°	51.8	51.6	51.3	51.0	50.6	50.4	50.2	50.0	49.9	49.7	49.5
82.5°	38.8	38.7	38.7	38.6	38.5	38.5	38.5	38.5	38.5	38.4	38.2
85°	22.8	22.6	22.4	22.2	22.1	22.0	22.0	22.0	22.0	22.0	21.8
87.5°	9.2	9.3	9.4	9.5	9.6	9.9	10.2	10.6	10.9	11.3	11.3
90°	0.8	2.4	4.1	5.7	7.3	9.1	11.3	13.4	15.6	17.7	18.4
92.5°	17.8	18.9	20.1	21.2	22.2	23.5	24.7	25.9	27.1	28.3	28.8
95°	43.5	44.6	45.8	46.9	48.1	49.3	50.6	51.9	53.3	54.6	55.2
97.5°	77.2	78.0	78.9	79.7	80.7	81.5	82.5	83.4	84.4	85.3	86.1
100°	100.2	101.2	102.2	103.2	104.2	105.1	105.8	106.7	107.5	108.3	108.9
102.5°	126.8	127.3	127.9	128.6	129.1	130.0	131.0	132.1	133.2	134.3	134.8
105°	165.8	166.2	166.5	166.8	167.1	168.1	169.5	171.0	172.5	173.9	173.9
107.5°	211.2	211.4	211.6	211.8	212.0	212.4	213.0	213.6	214.1	214.7	215.3
110°	239.5	239.8	240.2	240.4	240.8	241.1	241.5	241.8	242.1	242.4	243.1

TEST NUMBER: P331890-830

CATALOG NUMBER: S123DIP-S340D805U830-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	269.0	269.2	269.4	269.6	269.8	269.8	269.9	270.0	270.1	270.1	271.0
115°	313.2	313.7	314.1	314.6	315.2	315.3	314.9	314.6	314.2	314.0	314.1
117.5°	357.7	358.1	358.4	358.6	359.0	358.9	358.5	358.1	357.7	357.2	357.2
120°	385.4	386.3	387.4	388.3	389.4	389.5	388.6	387.8	387.0	386.2	386.0
122.5°	414.3	415.0	415.8	416.4	417.2	417.4	416.9	416.5	416.0	415.7	415.2
125°	458.4	458.8	459.3	459.9	460.3	460.4	460.1	459.8	459.4	459.1	458.5
127.5°	499.1	500.1	501.1	502.2	503.2	503.6	503.2	502.8	502.5	502.1	501.2
130°	526.1	527.4	528.8	530.1	531.4	531.8	531.3	530.8	530.4	529.8	529.1
132.5°	553.3	554.6	555.9	557.2	558.6	559.0	558.6	558.3	557.9	557.5	556.8
135°	594.7	595.7	596.6	597.7	598.6	599.1	598.9	598.7	598.5	598.4	597.8
137.5°	633.0	633.9	634.6	635.5	636.3	636.9	637.3	637.7	638.2	638.6	637.9
140°	659.5	660.3	661.2	662.0	662.8	663.3	663.5	663.6	663.8	663.9	663.8
142.5°	683.7	684.6	685.3	686.2	687.0	687.6	687.9	688.2	688.4	688.7	688.5
145°	721.4	721.8	722.1	722.5	722.7	723.1	723.7	724.2	724.6	725.1	725.0
147.5°	754.5	755.1	755.6	756.2	756.9	757.3	757.8	758.3	758.7	759.2	759.2
150°	777.4	777.8	778.1	778.4	778.7	779.1	779.4	779.8	780.0	780.4	780.4
152.5°	796.4	796.7	797.2	797.7	798.1	798.5	798.7	798.9	799.1	799.3	799.6
155°	826.0	826.0	826.0	826.0	826.0	826.1	826.3	826.5	826.7	826.8	827.5
157.5°	851.4	851.2	851.0	850.8	850.6	850.6	850.7	850.9	851.0	851.1	851.9
160°	867.3	867.0	866.7	866.4	866.0	865.9	865.9	865.9	865.9	865.9	866.7
162.5°	881.5	881.1	880.6	880.1	879.7	879.5	879.7	879.8	879.9	880.1	880.8
165°	899.8	899.3	898.8	898.3	897.8	897.6	897.6	897.6	897.6	897.6	898.5
167.5°	914.4	913.7	913.0	912.4	911.7	911.5	911.6	911.7	911.9	912.0	913.0
170°	922.7	922.0	921.3	920.7	920.0	919.6	919.6	919.6	919.6	919.6	920.9
172.5°	929.1	928.5	927.8	927.2	926.5	926.1	926.1	926.1	926.1	926.1	927.2
175°	935.9	935.2	934.6	934.0	933.3	932.9	932.9	932.9	932.9	932.9	934.0
177.5°	938.7	938.2	937.6	937.1	936.6	936.3	936.3	936.3	936.3	936.3	937.1
180°	938.1	938.1	938.1	938.1	938.1	938.1	938.1	938.1	938.1	938.1	938.1

TEST NUMBER: P331890-830

CATALOG NUMBER: S123DIP-S340D805U830-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	510.8	510.8	510.8	510.8	510.8	510.8	510.8	510.8
2.5°	508.8	509.6	510.4	510.8	510.7	510.6	510.5	510.4
5°	506.1	507.1	508.1	508.5	508.3	508.1	507.8	507.7
7.5°	500.8	501.6	502.5	502.8	502.8	502.7	502.6	502.4
10°	495.9	496.7	497.6	497.9	497.8	497.6	497.4	497.2
12.5°	490.4	491.1	491.7	492.0	491.9	491.7	491.6	491.5
15°	480.7	481.5	482.3	482.4	481.7	481.2	480.6	480.0
17.5°	468.3	468.9	469.5	469.7	469.4	469.2	469.0	468.8
20°	459.3	459.7	460.1	460.1	459.8	459.5	459.2	458.9
22.5°	449.6	450.0	450.3	450.3	449.9	449.5	449.1	448.7
25°	433.7	433.8	433.9	433.8	433.5	433.2	432.9	432.6
27.5°	416.7	416.8	416.8	416.7	416.3	415.9	415.6	415.2
30°	404.9	404.9	404.9	404.5	403.9	403.2	402.6	401.8
32.5°	392.6	392.0	391.5	391.1	390.7	390.3	389.9	389.6
35°	372.6	372.0	371.4	370.9	370.4	369.9	369.4	368.9
37.5°	351.9	351.2	350.4	350.0	349.7	349.3	349.0	348.7
40°	338.4	337.6	336.8	336.2	335.8	335.5	335.1	334.7
42.5°	324.3	323.5	322.7	322.2	321.8	321.4	321.0	320.6
45°	303.3	302.2	301.0	300.2	299.6	299.2	298.7	298.2
47.5°	281.3	280.1	278.9	278.1	277.7	277.3	276.8	276.4
50°	266.6	265.5	264.5	263.6	263.1	262.5	261.9	261.3
52.5°	251.8	250.9	250.0	249.2	248.6	248.1	247.5	246.9
55°	229.3	228.2	227.2	226.4	225.9	225.4	224.9	224.4
57.5°	207.2	206.1	205.2	204.4	203.9	203.3	202.7	202.2
60°	191.5	190.6	189.7	189.1	188.5	188.0	187.6	187.1
62.5°	176.3	175.5	174.7	174.0	173.7	173.3	173.1	172.7
65°	153.9	153.2	152.3	151.8	151.6	151.2	150.9	150.6
67.5°	131.6	130.9	130.3	129.7	129.3	128.8	128.5	128.1
70°	117.3	116.5	115.8	115.3	114.8	114.3	113.8	113.3
72.5°	102.6	102.0	101.4	100.9	100.8	100.5	100.2	99.9
75°	81.6	81.1	80.6	80.2	79.9	79.6	79.4	79.1
77.5°	61.9	61.6	61.3	61.2	61.2	61.2	61.2	61.2
80°	49.4	49.3	49.2	49.2	49.2	49.2	49.2	49.2
82.5°	38.1	37.9	37.7	37.5	37.5	37.4	37.3	37.2
85°	21.6	21.4	21.2	21.1	21.1	21.1	21.1	21.1
87.5°	11.4	11.4	11.5	11.5	11.6	11.7	11.7	11.8
90°	19.0	19.6	20.3	20.8	21.1	21.5	21.8	22.1
92.5°	29.3	29.9	30.3	30.5	30.3	30.2	30.0	29.8
95°	55.8	56.5	57.1	57.5	57.5	57.5	57.5	57.5
97.5°	86.8	87.6	88.3	88.7	88.6	88.6	88.5	88.4
100°	109.3	109.8	110.3	110.7	111.0	111.3	111.7	112.0
102.5°	135.3	135.7	136.2	136.5	136.4	136.3	136.3	136.2
105°	173.9	173.9	173.9	174.1	174.4	174.7	175.0	175.4
107.5°	215.7	216.3	216.9	217.0	216.8	216.6	216.4	216.2
110°	243.7	244.4	245.1	245.2	244.9	244.6	244.2	243.9

TEST NUMBER: P331890-830

CATALOG NUMBER: S123DIP-S340D805U830-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	271.7	272.5	273.3	273.6	273.6	273.5	273.4	273.4
115°	314.2	314.4	314.6	314.6	314.4	314.2	314.1	314.0
117.5°	357.2	357.1	357.1	356.8	356.5	356.0	355.5	355.1
120°	385.8	385.7	385.5	385.2	384.9	384.6	384.3	383.9
122.5°	414.8	414.3	414.0	413.5	413.0	412.6	412.1	411.6
125°	457.8	457.1	456.5	455.8	455.2	454.5	453.8	453.2
127.5°	500.3	499.4	498.5	497.7	496.9	496.2	495.4	494.6
130°	528.6	527.9	527.3	526.3	525.2	524.1	522.9	521.7
132.5°	556.0	555.2	554.4	553.6	552.7	551.8	550.9	550.1
135°	597.1	596.4	595.8	595.3	594.9	594.7	594.3	594.0
137.5°	637.3	636.6	635.8	635.2	634.6	634.0	633.4	632.7
140°	663.6	663.5	663.3	662.7	661.5	660.3	659.2	658.1
142.5°	688.4	688.2	688.1	687.6	686.6	685.8	684.9	684.0
145°	724.8	724.6	724.4	724.1	723.4	722.7	722.1	721.4
147.5°	759.2	759.2	759.2	758.7	757.7	756.7	755.7	754.8
150°	780.4	780.4	780.4	780.0	778.9	778.0	776.9	776.0
152.5°	799.7	800.0	800.3	800.0	799.2	798.3	797.5	796.6
155°	828.1	828.8	829.4	829.2	828.0	826.9	825.8	824.6
157.5°	852.5	853.2	853.8	853.8	852.9	852.0	851.0	850.1
160°	867.5	868.4	869.1	869.2	868.6	867.9	867.2	866.6
162.5°	881.7	882.5	883.4	883.2	882.1	881.1	880.1	879.0
165°	899.6	900.5	901.5	901.4	900.3	899.1	898.0	896.8
167.5°	914.1	915.0	916.1	916.1	915.0	914.1	913.0	912.0
170°	922.0	923.1	924.3	924.3	923.1	922.0	920.9	919.6
172.5°	928.2	929.3	930.2	930.2	929.0	927.8	926.7	925.6
175°	934.9	935.9	936.9	936.8	935.7	934.5	933.3	932.2
177.5°	937.9	938.7	939.4	939.4	938.5	937.5	936.7	935.8
180°	938.1	938.1	938.1	938.1	938.1	938.1	938.1	938.1

(END OF REPORT)