

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: P332022-935

Luminaire Tested: **S123DIP-S1000D805U935-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332022-935
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-S1000D805U935-4F0-1E-UDD-D1
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, DROP 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: 5991.8 lumens
Efficiency: N/A
Efficacy: 110.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.08')
CIE Type: General Diffuse

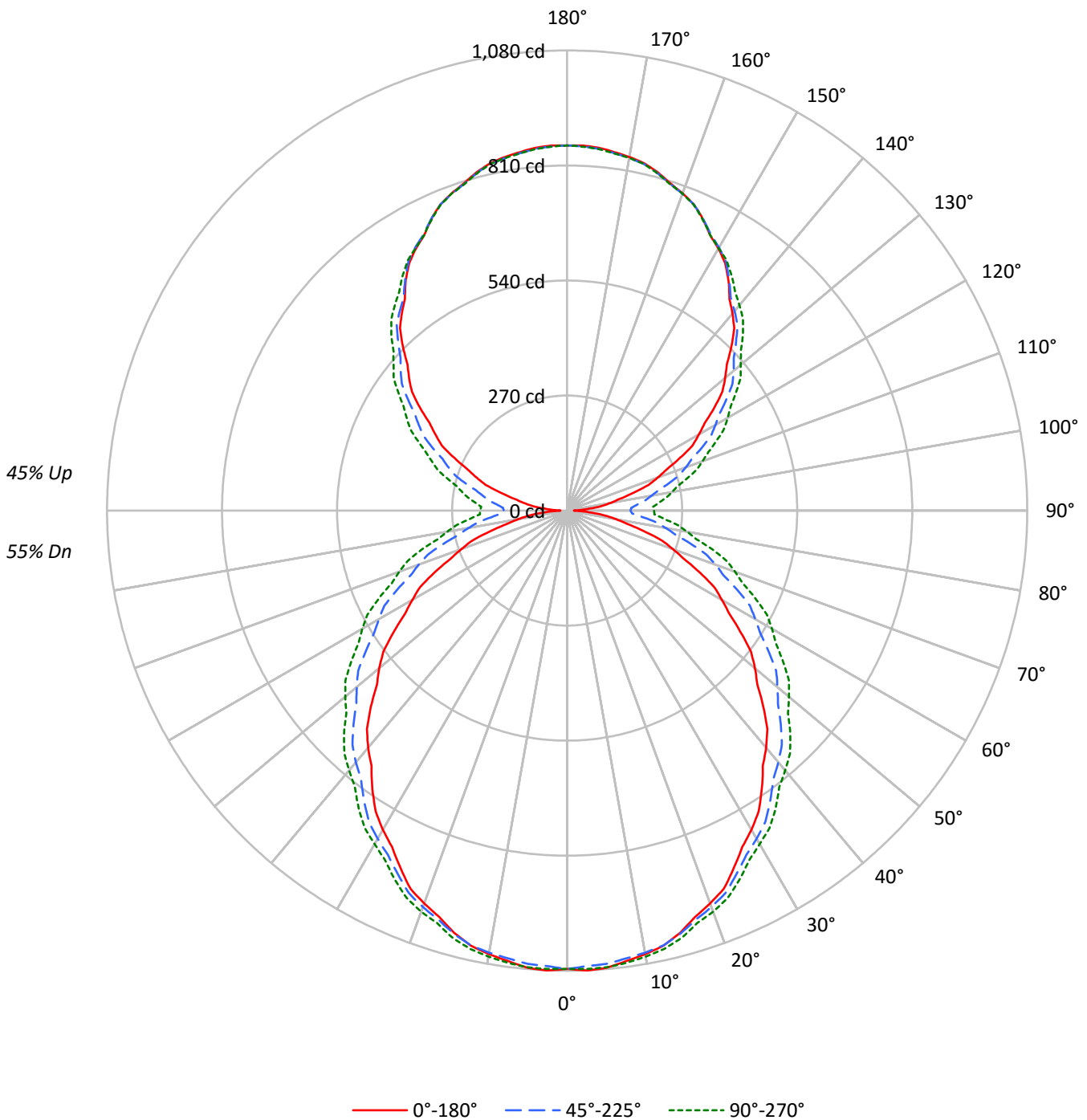
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332022-935

CATALOG NUMBER: S123DIP-S1000D805U935-4F0-1E-UDD-D1

Luminous Intensity Polar Plot





TEST NUMBER: P332022-935

CATALOG NUMBER: S123DIP-S1000D805U935-4F0-1E-UDD-D1

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	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55
1	98	93	89	85	91	86	83	79	74	71	68	63	60	59	52	51	49	44
2	89	81	74	68	82	75	69	64	64	60	56	54	51	48	45	43	41	36
3	81	70	63	56	74	65	59	53	56	51	46	48	44	40	40	37	34	30
4	74	62	54	47	68	58	50	45	50	44	39	42	38	34	35	32	29	25
5	67	55	47	40	62	51	44	38	44	38	34	38	33	29	32	28	25	22
6	62	49	41	35	57	46	39	33	40	34	29	34	29	26	29	25	22	19
7	57	45	36	30	53	42	34	29	36	30	26	31	26	23	26	22	19	17
8	53	40	32	27	49	38	31	26	33	27	23	28	24	20	24	20	17	15
9	50	37	29	24	46	35	28	23	30	24	20	26	21	18	22	18	16	13
10	46	34	26	21	43	32	25	20	28	22	18	24	19	16	20	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11579	11579	11579
5°	11615	11288	11294
10°	11511	11028	10973
15°	11363	10732	10622
20°	11151	10395	10235
25°	10888	10007	9829
30°	10621	9658	9417
35°	10321	9289	9089
40°	10033	8953	8737
45°	9715	8630	8455
50°	9402	8312	8146
55°	9056	7985	7866
60°	8718	7655	7580
65°	8372	7303	7241
70°	7847	6904	6893
75°	7189	6449	6538
80°	6431	6003	6131
85°	5726	5695	5898



TEST NUMBER: P332022-935

CATALOG NUMBER: S123DIP-S1000D805U935-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.0	1.7
10°-20°	290.7	4.9
20°-30°	434.8	7.3
30°-40°	519.2	8.7
40°-50°	543.3	9.1
50°-60°	509.8	8.5
60°-70°	425.8	7.1
70°-80°	304.6	5.1
80°-90°	184.2	3.1
90°-100°	169.8	2.8
100°-110°	250.9	4.2
110°-120°	340.1	5.7
120°-130°	405.8	6.8
130°-140°	434.5	7.3
140°-150°	416.1	6.9
150°-160°	347.7	5.8
160°-170°	231.4	3.9
170°-180°	81.0	1.4
0°-30°	827.5	13.8
0°-40°	1346.7	22.5
0°-60°	2399.8	40.1
0°-90°	3314.4	55.3
90°-120°	760.8	12.7
90°-150°	2017.2	33.7
90°-180°	2677.0	44.7
0°-180°	5991.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1076	1076	1076	1076	1076	
5°	1077	1074	1068	1076	1076	102
15°	1025	1029	1028	1039	1038	289
25°	926	937	941	955	956	426
35°	797	815	831	848	853	498
45°	652	680	709	731	741	502
55°	497	536	578	608	619	445
65°	343	389	441	474	488	339
75°	186	242	300	337	353	199
85°	57	116	178	216	230	60
90°	16	80	149	190	204	13
95°	53	104	166	203	216	55
105°	161	192	247	278	291	172
115°	292	309	349	377	386	289
125°	422	426	457	478	484	377
135°	546	549	561	578	584	420
145°	660	660	662	671	673	412
155°	755	755	755	758	753	347
165°	822	820	820	824	819	232
175°	855	852	852	856	852	81
180°	857	857	857	857	857	



TEST NUMBER: P332022-935

CATALOG NUMBER: S123DIP-S1000D805U935-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7
2.5°	1080.5	1079.9	1079.2	1078.6	1078.0	1076.8	1075.1	1073.5	1071.8	1070.1	1071.8
5°	1076.9	1076.4	1075.9	1075.4	1074.9	1073.8	1072.3	1070.7	1069.1	1067.6	1069.6
7.5°	1066.3	1066.5	1066.6	1066.7	1066.8	1066.1	1064.6	1063.1	1061.5	1060.1	1062.6
10°	1057.0	1057.6	1058.1	1058.6	1059.1	1058.7	1057.4	1056.1	1054.8	1053.5	1056.1
12.5°	1045.8	1046.5	1047.2	1047.9	1048.7	1048.6	1047.8	1046.8	1045.9	1045.1	1047.5
15°	1025.4	1026.1	1026.9	1027.7	1028.5	1028.7	1028.5	1028.2	1027.9	1027.7	1030.4
17.5°	999.6	1001.2	1002.7	1004.3	1005.8	1006.6	1006.5	1006.3	1006.3	1006.2	1008.5
20°	980.9	982.4	984.0	985.5	987.1	988.2	988.7	989.2	989.7	990.2	992.6
22.5°	961.1	962.7	964.3	965.9	967.4	968.5	969.3	970.0	970.8	971.5	974.4
25°	925.7	928.3	931.0	933.6	936.2	937.9	938.7	939.4	940.2	941.0	944.3
27.5°	890.1	893.1	896.0	899.1	902.0	904.3	906.0	907.7	909.3	911.0	914.0
30°	864.8	868.2	871.6	874.9	878.4	881.1	883.2	885.3	887.3	889.4	892.6
32.5°	836.7	840.5	844.3	848.1	851.9	855.1	857.9	860.6	863.3	866.0	869.4
35°	796.9	801.0	805.2	809.3	813.6	817.3	820.7	824.1	827.4	830.9	834.7
37.5°	754.7	759.4	764.1	768.7	773.4	777.8	782.0	786.2	790.3	794.5	798.9
40°	726.5	731.2	735.9	740.6	745.3	750.3	755.4	760.7	765.9	771.1	775.5
42.5°	695.6	701.4	707.1	712.8	718.5	724.1	729.5	734.9	740.4	745.8	750.6
45°	651.5	657.8	664.1	670.3	676.6	682.9	689.4	695.9	702.5	708.9	713.9
47.5°	605.4	612.4	619.6	626.6	633.7	641.0	648.4	655.9	663.3	670.8	676.3
50°	575.4	582.6	590.0	597.3	604.5	612.3	620.3	628.4	636.5	644.5	650.5
52.5°	543.5	551.2	559.0	566.6	574.4	582.6	591.6	600.5	609.3	618.3	624.5
55°	496.9	505.5	514.0	522.6	531.2	540.2	549.6	559.0	568.3	577.7	584.8
57.5°	451.4	460.4	469.3	478.3	487.2	496.9	507.1	517.4	527.6	537.9	544.9
60°	419.6	428.9	438.2	447.6	457.0	467.0	477.7	488.4	499.1	509.8	517.0
62.5°	389.5	399.1	408.7	418.3	427.8	438.3	449.6	460.9	472.2	483.5	490.8
65°	343.4	353.5	363.7	373.8	384.0	394.8	406.2	417.7	429.1	440.7	448.4
67.5°	296.4	307.3	318.1	328.8	339.6	350.9	362.5	374.2	385.8	397.5	406.0
70°	263.6	274.8	286.0	297.3	308.5	320.3	332.8	345.3	357.8	370.3	378.7
72.5°	233.7	244.9	256.1	267.3	278.4	290.5	303.4	316.3	329.2	342.2	350.7
75°	186.3	198.5	210.8	223.1	235.3	247.9	261.0	274.0	287.0	300.0	308.6
77.5°	145.1	157.4	169.8	182.1	194.4	207.2	220.3	233.4	246.6	259.7	268.7
80°	116.0	128.8	141.5	154.3	167.0	180.2	193.7	207.3	220.8	234.4	243.2
82.5°	90.7	103.7	116.7	129.6	142.6	155.9	169.7	183.4	197.2	210.9	219.8
85°	57.4	70.4	83.4	96.5	109.5	123.0	136.7	150.5	164.3	178.1	187.0
87.5°	31.3	44.6	57.9	71.1	84.4	97.8	111.5	125.2	138.9	152.5	161.5
90°	15.9	30.1	44.4	58.6	72.9	87.6	102.9	118.1	133.4	148.6	158.0
92.5°	30.6	43.1	55.6	68.2	80.7	94.0	108.2	122.4	136.6	150.8	159.9
95°	52.6	63.8	75.0	86.2	97.4	110.0	124.0	137.9	151.9	165.8	174.5
97.5°	82.1	92.0	101.9	111.8	121.8	133.3	146.4	159.5	172.5	185.5	194.0
100°	102.1	111.3	120.5	129.8	139.1	150.0	162.7	175.5	188.2	200.9	208.9
102.5°	125.4	133.5	141.5	149.5	157.6	168.0	180.7	193.5	206.2	219.0	226.8
105°	160.8	167.4	173.9	180.5	187.0	196.6	209.1	221.7	234.2	246.8	254.1
107.5°	200.9	206.4	211.9	217.4	222.8	231.2	242.4	253.5	264.7	275.9	283.3
110°	225.8	230.8	235.7	240.7	245.7	253.7	264.3	275.0	285.8	296.4	303.8



TEST NUMBER: P332022-935

CATALOG NUMBER: S123DIP-S1000D805U935-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	252.7	256.8	260.8	264.8	268.9	276.0	285.9	296.0	306.1	316.2	323.5
115°	292.0	295.5	299.1	302.6	306.3	312.5	321.7	330.7	339.8	348.9	355.2
117.5°	332.3	334.6	336.8	339.1	341.3	346.6	355.0	363.4	371.9	380.2	386.4
120°	356.7	359.0	361.2	363.3	365.6	370.6	378.4	386.2	394.1	401.9	407.8
122.5°	383.1	384.4	385.8	387.1	388.5	393.0	400.8	408.6	416.4	424.2	429.6
125°	422.2	422.7	423.1	423.6	424.0	427.8	435.1	442.4	449.6	456.8	461.8
127.5°	459.3	460.1	460.8	461.5	462.2	465.5	471.4	477.3	483.3	489.1	493.5
130°	484.1	485.1	486.0	487.0	487.9	490.8	495.5	500.2	505.1	509.8	514.1
132.5°	508.0	509.1	510.3	511.4	512.6	515.1	518.9	522.7	526.6	530.4	534.4
135°	545.6	546.2	546.8	547.5	548.1	549.8	552.5	555.3	557.9	560.7	564.7
137.5°	580.4	580.9	581.4	581.9	582.6	583.8	585.8	587.8	589.8	591.8	595.3
140°	603.6	604.4	605.1	605.9	606.7	607.5	608.4	609.3	610.3	611.2	614.9
142.5°	625.8	626.3	626.8	627.3	627.9	628.4	628.8	629.2	629.6	630.1	633.4
145°	660.2	660.2	660.3	660.3	660.4	660.6	661.1	661.5	661.9	662.4	664.3
147.5°	689.2	689.7	690.3	690.8	691.4	691.8	692.2	692.7	693.1	693.5	694.1
150°	710.2	710.5	710.8	711.1	711.4	711.7	712.0	712.3	712.6	712.9	712.9
152.5°	727.5	727.8	728.2	728.7	729.1	729.4	729.6	729.8	730.0	730.1	730.4
155°	754.6	754.6	754.6	754.6	754.6	754.7	754.8	755.0	755.2	755.3	755.9
157.5°	777.7	777.6	777.4	777.2	777.1	777.1	777.1	777.3	777.4	777.5	778.2
160°	792.3	792.0	791.7	791.4	791.1	791.0	791.0	791.0	791.0	791.0	791.7
162.5°	805.2	804.9	804.4	804.0	803.6	803.4	803.6	803.7	803.7	803.9	804.6
165°	821.9	821.5	821.0	820.6	820.1	819.9	819.9	819.9	819.9	819.9	820.8
167.5°	835.3	834.7	834.1	833.4	832.8	832.7	832.8	832.8	833.0	833.1	834.1
170°	842.8	842.2	841.6	841.0	840.4	840.1	840.1	840.1	840.1	840.1	841.2
172.5°	848.7	848.2	847.6	847.0	846.4	846.0	846.0	846.0	846.0	846.0	847.0
175°	854.9	854.3	853.8	853.2	852.6	852.2	852.2	852.2	852.2	852.2	853.2
177.5°	857.5	857.0	856.5	856.0	855.6	855.3	855.3	855.3	855.3	855.3	856.0
180°	857.0	857.0	857.0	857.0	857.0	857.0	857.0	857.0	857.0	857.0	857.0



TEST NUMBER: P332022-935

CATALOG NUMBER: S123DIP-S1000D805U935-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7
2.5°	1073.5	1075.1	1076.8	1077.5	1077.3	1077.1	1076.9	1076.7
5°	1071.7	1073.8	1075.9	1076.8	1076.5	1076.2	1076.0	1075.7
7.5°	1065.2	1067.9	1070.5	1071.6	1071.3	1071.0	1070.7	1070.4
10°	1058.7	1061.3	1063.9	1065.0	1064.5	1063.9	1063.4	1062.9
12.5°	1049.8	1052.2	1054.6	1055.6	1055.1	1054.6	1054.0	1053.5
15°	1032.9	1035.5	1038.1	1039.3	1039.1	1038.8	1038.5	1038.3
17.5°	1010.8	1013.2	1015.5	1016.5	1016.2	1015.8	1015.5	1015.0
20°	994.9	997.2	999.6	1000.9	1001.2	1001.4	1001.7	1001.9
22.5°	977.4	980.3	983.3	984.7	984.6	984.5	984.3	984.1
25°	947.8	951.1	954.5	956.2	956.2	956.2	956.2	956.2
27.5°	916.8	919.7	922.6	924.2	924.5	924.6	924.9	925.1
30°	895.7	898.8	901.9	903.5	903.5	903.5	903.5	903.5
32.5°	872.7	876.0	879.3	881.3	881.9	882.5	883.2	883.8
35°	838.6	842.6	846.4	848.9	850.0	851.0	852.0	853.1
37.5°	803.4	807.8	812.3	814.9	815.7	816.5	817.3	818.2
40°	779.9	784.4	788.8	791.5	792.6	793.6	794.6	795.7
42.5°	755.4	760.3	765.2	768.3	769.7	771.2	772.7	774.1
45°	718.8	723.8	728.8	732.3	734.3	736.4	738.6	740.6
47.5°	681.9	687.5	693.0	696.6	698.3	699.9	701.5	703.1
50°	656.5	662.5	668.5	672.4	674.2	676.1	677.9	679.7
52.5°	630.7	636.9	643.1	647.3	649.5	651.8	654.0	656.3
55°	591.8	598.8	605.9	610.4	612.5	614.6	616.6	618.7
57.5°	552.1	559.1	566.2	571.0	573.4	575.8	578.3	580.7
60°	524.3	531.7	538.9	544.0	546.9	549.7	552.6	555.4
62.5°	498.1	505.4	512.6	517.6	520.3	523.0	525.6	528.3
65°	456.2	464.1	471.8	477.1	479.7	482.2	484.9	487.5
67.5°	414.6	423.1	431.6	437.0	439.2	441.4	443.6	445.7
70°	386.9	395.3	403.6	409.1	411.7	414.3	416.9	419.6
72.5°	359.3	367.8	376.3	381.9	384.5	387.1	389.8	392.4
75°	317.2	325.8	334.3	340.3	343.4	346.5	349.6	352.8
77.5°	277.8	286.9	295.9	301.7	304.0	306.4	308.8	311.3
80°	252.1	261.0	269.8	275.5	278.1	280.7	283.4	285.9
82.5°	228.7	237.5	246.3	252.1	254.7	257.3	259.8	262.5
85°	195.8	204.7	213.5	219.3	221.9	224.5	227.0	229.7
87.5°	170.5	179.4	188.4	194.2	196.9	199.6	202.2	204.9
90°	167.5	176.9	186.4	192.6	195.4	198.4	201.3	204.1
92.5°	169.0	178.1	187.3	193.0	195.2	197.3	199.6	201.8
95°	183.1	191.8	200.5	206.1	208.8	211.4	214.0	216.5
97.5°	202.4	210.9	219.3	224.8	227.4	229.9	232.5	235.0
100°	216.9	224.9	232.9	238.3	241.3	244.2	247.1	249.9
102.5°	234.5	242.4	250.1	255.3	257.9	260.4	262.9	265.5
105°	261.3	268.6	276.0	280.9	283.5	286.2	288.8	291.4
107.5°	290.8	298.3	305.7	310.5	312.5	314.7	316.8	318.9
110°	311.3	318.6	326.0	330.5	332.3	334.1	335.9	337.7



TEST NUMBER: P332022-935

CATALOG NUMBER: S123DIP-S1000D805U935-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	330.7	338.0	345.3	350.0	352.2	354.5	356.7	359.0
115°	361.7	368.1	374.4	378.7	380.6	382.5	384.4	386.4
117.5°	392.6	398.7	404.9	408.8	410.4	412.1	413.6	415.3
120°	413.6	419.5	425.3	429.0	430.5	432.0	433.6	435.1
122.5°	435.0	440.4	445.7	449.2	450.6	451.9	453.4	454.8
125°	466.7	471.5	476.4	479.4	480.6	481.9	483.1	484.3
127.5°	497.8	502.1	506.4	509.1	510.2	511.3	512.4	513.5
130°	518.5	522.8	527.2	529.6	530.1	530.6	531.2	531.7
132.5°	538.5	542.5	546.5	549.0	549.9	551.0	551.9	552.8
135°	568.9	572.9	577.0	579.5	580.6	581.6	582.6	583.6
137.5°	598.7	602.3	605.7	607.9	608.6	609.3	610.0	610.8
140°	618.7	622.5	626.2	628.3	628.5	628.8	629.0	629.3
142.5°	636.8	640.1	643.4	645.3	645.8	646.4	646.9	647.3
145°	666.2	668.2	670.1	671.3	671.8	672.2	672.6	673.1
147.5°	694.7	695.3	696.0	696.3	696.4	696.4	696.5	696.5
150°	712.9	712.9	712.9	712.7	712.3	712.0	711.5	711.2
152.5°	730.6	730.8	731.1	730.8	730.2	729.5	728.8	728.1
155°	756.5	757.1	757.7	757.4	756.4	755.4	754.3	753.3
157.5°	778.8	779.4	780.0	779.9	779.1	778.3	777.4	776.5
160°	792.5	793.2	793.9	794.0	793.4	792.8	792.2	791.6
162.5°	805.4	806.2	806.9	806.8	805.8	804.9	803.9	803.0
165°	821.7	822.6	823.5	823.5	822.4	821.3	820.3	819.2
167.5°	835.0	835.9	836.8	836.8	835.9	835.0	834.1	833.1
170°	842.2	843.3	844.3	844.3	843.3	842.2	841.2	840.1
172.5°	847.9	848.9	849.7	849.7	848.6	847.6	846.5	845.5
175°	854.0	854.9	855.8	855.7	854.7	853.7	852.6	851.5
177.5°	856.8	857.5	858.2	858.2	857.3	856.4	855.7	854.8
180°	857.0	857.0	857.0	857.0	857.0	857.0	857.0	857.0

(END OF REPORT)