

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: P332004-930

Luminaire Tested: **S123DIP-S1000D365U930-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332004-930
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-S1000D365U930-4F0-1E-UDD-D1
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4440.4 lumens
Efficiency: N/A
Efficacy: 102.1 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: Semi-Direct

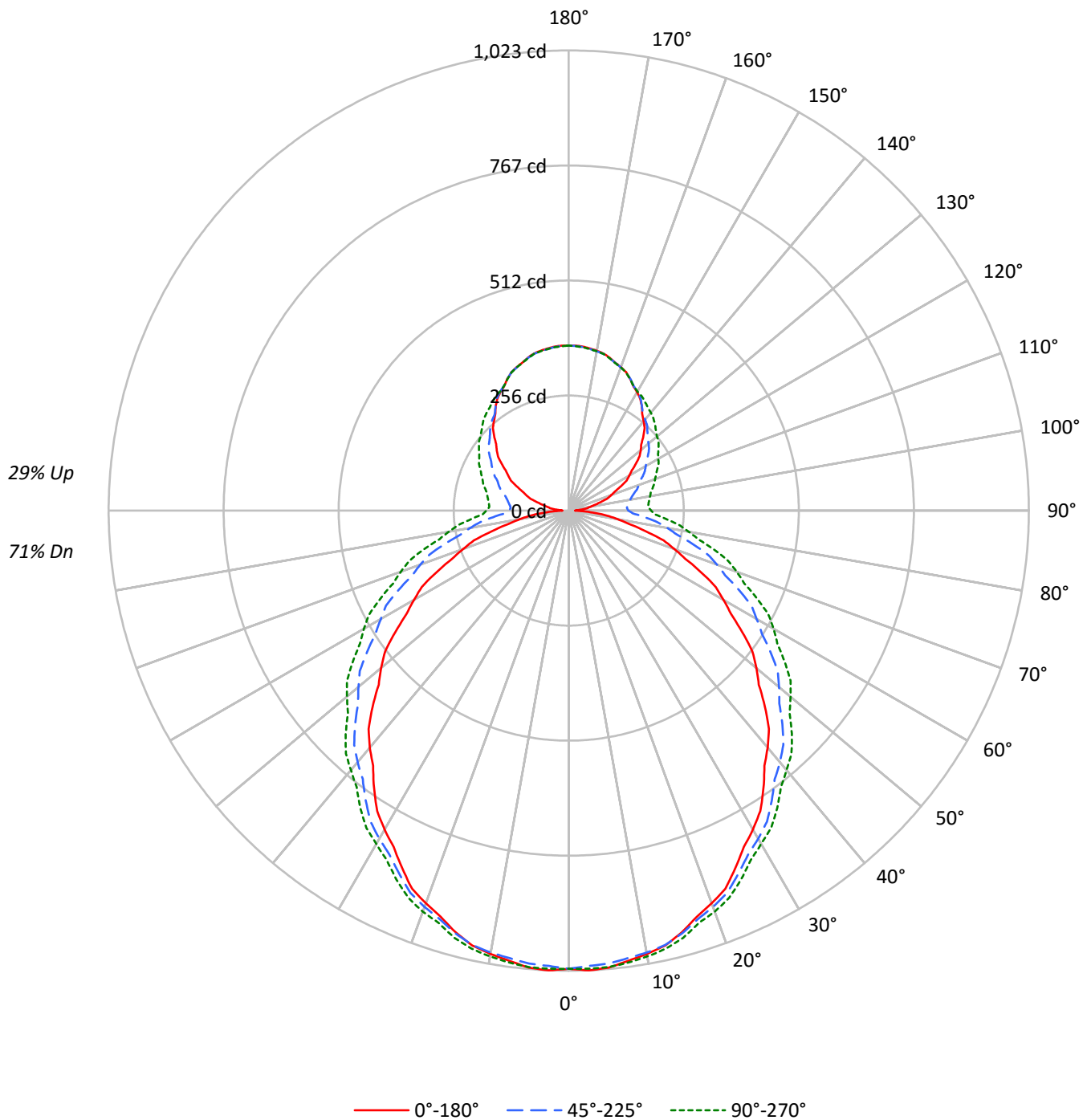
Input Watts (W): 43.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332004-930

CATALOG NUMBER: S123DIP-S1000D365U930-4F0-1E-UDD-D1

Luminous Intensity Polar Plot



TEST NUMBER: P332004-930

CATALOG NUMBER: S123DIP-S1000D365U930-4F0-1E-UDD-D1

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	112	112	112	112	106	106	106	106	95	95	95		85	85	85		75
1	101	96	91	87	95	91	87	83	81	78	75		72	70	67		64
2	91	83	76	70	86	78	72	67	70	65	61		63	59	55		56
3	83	72	64	58	78	69	61	55	61	56	51		55	50	46		49
4	76	64	55	49	71	61	53	47	54	48	43		49	43	39		43
5	70	57	48	41	65	54	46	40	49	42	37		44	38	34		39
6	64	51	42	36	60	49	40	35	44	37	32		39	34	30		35
7	59	46	38	32	56	44	36	30	40	33	28		36	30	26		32
8	55	42	34	28	52	40	32	27	36	30	25		33	27	23		29
9	51	38	30	25	48	37	29	24	33	27	22		30	25	21		27
10	48	35	28	22	45	34	27	22	31	25	20		28	23	19		25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10964	10964	10964
5°	10999	10689	10694
10°	10900	10443	10390
15°	10759	10162	10058
20°	10559	9844	9692
25°	10311	9476	9308
30°	10057	9145	8918
35°	9773	8796	8606
40°	9500	8479	8272
45°	9199	8172	8007
50°	8904	7871	7713
55°	8574	7562	7449
60°	8255	7248	7178
65°	7926	6915	6856
70°	7430	6538	6527
75°	6807	6107	6190
80°	6087	5683	5807
85°	5426	5394	5585

TEST NUMBER: P332004-930

CATALOG NUMBER: S123DIP-S1000D365U930-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.6	2.2
10°-20°	275.3	6.2
20°-30°	411.7	9.3
30°-40°	491.7	11.1
40°-50°	514.4	11.6
50°-60°	482.8	10.9
60°-70°	403.2	9.1
70°-80°	288.5	6.5
80°-90°	173.1	3.9
90°-100°	131.8	3.0
100°-110°	150.8	3.4
110°-120°	174.6	3.9
120°-130°	190.3	4.3
130°-140°	193.4	4.4
140°-150°	179.7	4.0
150°-160°	148.8	3.4
160°-170°	99.1	2.2
170°-180°	34.7	0.8
0°-30°	783.6	17.6
0°-40°	1275.2	28.7
0°-60°	2272.4	51.2
0°-90°	3137.2	70.7
90°-120°	457.3	10.3
90°-150°	1020.6	23.0
90°-180°	1303.0	29.3
0°-180°	4440.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1019	1019	1019	1019	1019	
5°	1020	1017	1011	1019	1019	97
15°	971	974	973	984	983	273
25°	877	887	891	905	906	404
35°	755	772	787	803	808	472
45°	617	644	671	692	701	476
55°	470	507	547	576	586	421
65°	325	369	417	449	462	321
75°	176	229	284	319	334	188
85°	54	110	169	205	218	57
90°	15	72	132	170	183	11
95°	29	75	131	165	178	29
105°	74	102	151	181	193	78
115°	128	144	182	208	217	127
125°	182	185	215	236	244	163
135°	235	236	247	265	271	181
145°	283	283	284	292	295	177
155°	323	323	323	324	322	149
165°	352	351	351	352	351	99
175°	366	365	365	366	364	35
180°	367	367	367	367	367	

TEST NUMBER: P332004-930

CATALOG NUMBER: S123DIP-S1000D365U930-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6
2.5°	1023.1	1022.5	1021.9	1021.3	1020.8	1019.6	1018.1	1016.5	1014.9	1013.3	1014.9
5°	1019.8	1019.3	1018.8	1018.3	1017.8	1016.8	1015.4	1013.8	1012.4	1010.9	1012.8
7.5°	1009.7	1009.9	1010.0	1010.1	1010.2	1009.5	1008.1	1006.7	1005.2	1003.8	1006.2
10°	1000.9	1001.4	1001.9	1002.4	1002.9	1002.5	1001.3	1000.0	998.8	997.6	1000.0
12.5°	990.3	990.9	991.6	992.3	993.0	993.0	992.1	991.2	990.4	989.6	991.9
15°	970.9	971.7	972.4	973.1	973.9	974.1	973.9	973.6	973.4	973.1	975.7
17.5°	946.6	948.0	949.5	951.0	952.4	953.2	953.1	952.9	952.8	952.8	955.0
20°	928.8	930.3	931.7	933.2	934.7	935.7	936.2	936.7	937.2	937.7	939.9
22.5°	910.1	911.6	913.1	914.6	916.1	917.1	917.9	918.5	919.2	919.9	922.7
25°	876.6	879.1	881.6	884.0	886.5	888.1	888.8	889.6	890.3	891.0	894.2
27.5°	842.9	845.7	848.5	851.3	854.1	856.3	857.9	859.5	861.0	862.7	865.4
30°	818.9	822.1	825.3	828.5	831.8	834.3	836.3	838.3	840.2	842.2	845.2
32.5°	792.3	795.9	799.5	803.1	806.7	809.8	812.4	814.9	817.5	820.0	823.2
35°	754.6	758.5	762.5	766.4	770.4	773.9	777.1	780.3	783.5	786.8	790.4
37.5°	714.6	719.1	723.5	727.9	732.4	736.5	740.5	744.4	748.4	752.4	756.5
40°	687.9	692.4	696.8	701.3	705.7	710.5	715.3	720.3	725.2	730.2	734.3
42.5°	658.7	664.1	669.5	675.0	680.4	685.7	690.8	695.9	701.1	706.2	710.8
45°	616.9	622.9	628.8	634.7	640.7	646.7	652.8	659.0	665.2	671.3	676.0
47.5°	573.2	579.9	586.7	593.4	600.1	607.0	614.0	621.1	628.1	635.2	640.4
50°	544.9	551.7	558.6	565.6	572.4	579.8	587.3	595.0	602.7	610.3	616.0
52.5°	514.6	522.0	529.3	536.5	543.9	551.7	560.2	568.6	577.0	585.5	591.3
55°	470.5	478.7	486.7	494.9	503.0	511.5	520.4	529.3	538.2	547.1	553.8
57.5°	427.5	435.9	444.4	452.9	461.4	470.5	480.2	489.9	499.6	509.3	516.0
60°	397.3	406.1	415.0	423.9	432.8	442.2	452.3	462.5	472.6	482.7	489.6
62.5°	368.8	377.9	387.0	396.1	405.1	415.1	425.7	436.4	447.1	457.9	464.7
65°	325.1	334.8	344.4	354.0	363.6	373.8	384.7	395.5	406.3	417.3	424.6
67.5°	280.7	291.0	301.2	311.4	321.6	332.2	343.2	354.3	365.3	376.4	384.5
70°	249.6	260.2	270.8	281.5	292.1	303.3	315.1	327.0	338.8	350.7	358.6
72.5°	221.3	231.9	242.5	253.1	263.7	275.1	287.3	299.5	311.8	324.0	332.1
75°	176.4	188.0	199.6	211.2	222.8	234.7	247.1	259.4	271.7	284.1	292.2
77.5°	137.4	149.0	160.8	172.4	184.1	196.2	208.6	221.0	233.5	245.9	254.5
80°	109.8	122.0	134.0	146.1	158.2	170.6	183.4	196.3	209.1	221.9	230.3
82.5°	85.9	98.2	110.5	122.7	135.0	147.7	160.7	173.7	186.7	199.7	208.1
85°	54.4	66.7	79.0	91.4	103.7	116.4	129.5	142.5	155.6	168.7	177.1
87.5°	29.6	42.0	54.4	66.8	79.2	91.8	104.5	117.2	130.0	142.8	151.2
90°	14.7	27.5	40.2	52.9	65.6	78.7	92.0	105.5	118.9	132.3	141.0
92.5°	20.5	31.9	43.2	54.5	65.9	77.9	90.8	103.6	116.5	129.4	137.7
95°	29.2	39.3	49.3	59.4	69.5	80.8	93.4	106.0	118.5	131.2	139.1
97.5°	41.1	50.1	59.1	68.1	77.1	87.6	99.5	111.4	123.4	135.3	142.8
100°	49.2	57.5	65.7	74.0	82.3	92.2	103.9	115.5	127.3	138.9	146.3
102.5°	58.6	66.0	73.3	80.6	88.0	97.4	109.0	120.6	132.2	143.7	150.8
105°	73.7	79.7	85.8	91.8	97.9	106.5	117.6	128.9	140.1	151.2	158.1
107.5°	90.1	95.2	100.4	105.4	110.6	118.2	128.6	138.8	149.1	159.4	166.2
110°	100.3	104.8	109.4	114.0	118.5	125.9	135.8	145.9	155.8	165.8	172.5

TEST NUMBER: P332004-930

CATALOG NUMBER: S123DIP-S1000D365U930-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	111.9	115.5	119.3	123.0	126.7	133.3	142.8	152.3	161.8	171.3	177.8
115°	128.0	131.2	134.3	137.5	140.6	146.6	155.3	164.0	172.8	181.6	187.5
117.5°	145.2	147.2	149.1	151.1	153.0	158.1	166.2	174.4	182.5	190.7	196.6
120°	155.2	156.8	158.3	160.0	161.6	166.3	174.1	182.0	189.8	197.5	203.2
122.5°	166.4	167.4	168.3	169.2	170.1	174.4	182.0	189.5	197.1	204.6	209.9
125°	182.5	182.7	183.0	183.1	183.3	186.9	194.0	201.0	208.0	215.0	220.0
127.5°	198.4	198.6	198.8	198.9	199.1	202.0	207.8	213.6	219.4	225.2	229.7
130°	209.0	209.3	209.6	209.9	210.1	212.6	217.4	222.1	226.8	231.5	236.0
132.5°	218.7	219.2	219.7	220.1	220.6	222.7	226.6	230.3	234.2	238.0	242.1
135°	234.7	234.9	235.0	235.1	235.3	236.7	239.3	242.0	244.6	247.3	251.4
137.5°	249.5	249.6	249.7	249.9	250.0	250.9	252.6	254.3	256.0	257.6	261.3
140°	258.9	259.3	259.6	259.9	260.2	260.8	261.6	262.4	263.3	264.0	267.7
142.5°	268.4	268.6	268.6	268.8	268.9	269.1	269.4	269.6	269.9	270.2	273.4
145°	283.2	283.1	282.9	282.8	282.7	282.7	282.9	283.2	283.3	283.5	285.4
147.5°	295.0	295.2	295.5	295.7	295.9	296.1	296.3	296.4	296.6	296.9	297.4
150°	303.9	304.1	304.2	304.4	304.5	304.6	304.8	304.8	305.0	305.1	305.1
152.5°	311.4	311.5	311.7	311.9	312.1	312.2	312.3	312.3	312.4	312.5	312.6
155°	323.0	323.0	323.0	323.0	323.0	323.0	323.1	323.1	323.2	323.3	323.5
157.5°	332.9	332.8	332.7	332.6	332.6	332.6	332.6	332.6	332.7	332.8	333.0
160°	339.1	339.0	338.8	338.8	338.6	338.5	338.5	338.5	338.5	338.5	338.8
162.5°	344.6	344.5	344.3	344.1	343.9	343.9	343.9	344.0	344.1	344.1	344.4
165°	351.8	351.6	351.4	351.2	351.0	350.9	350.9	350.9	350.9	350.9	351.3
167.5°	357.5	357.3	357.0	356.7	356.4	356.4	356.4	356.4	356.5	356.6	356.9
170°	360.7	360.4	360.2	360.0	359.7	359.5	359.5	359.5	359.5	359.5	360.0
172.5°	363.3	363.0	362.7	362.5	362.2	362.1	362.1	362.1	362.1	362.1	362.5
175°	365.9	365.7	365.4	365.2	364.9	364.8	364.8	364.8	364.8	364.8	365.2
177.5°	367.0	366.8	366.6	366.4	366.2	366.1	366.1	366.1	366.1	366.1	366.4
180°	366.8	366.8	366.8	366.8	366.8	366.8	366.8	366.8	366.8	366.8	366.8

TEST NUMBER: P332004-930

CATALOG NUMBER: S123DIP-S1000D365U930-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6
2.5°	1016.5	1018.1	1019.6	1020.3	1020.1	1019.9	1019.8	1019.5
5°	1014.8	1016.8	1018.8	1019.6	1019.4	1019.1	1018.9	1018.6
7.5°	1008.7	1011.2	1013.7	1014.7	1014.5	1014.2	1013.8	1013.6
10°	1002.5	1004.9	1007.5	1008.4	1008.0	1007.5	1007.0	1006.5
12.5°	994.1	996.4	998.7	999.6	999.1	998.6	998.1	997.6
15°	978.1	980.6	983.0	984.1	983.9	983.7	983.4	983.2
17.5°	957.2	959.4	961.6	962.5	962.2	961.9	961.6	961.2
20°	942.1	944.3	946.6	947.8	948.0	948.3	948.5	948.8
22.5°	925.5	928.3	931.2	932.5	932.3	932.2	932.1	931.9
25°	897.5	900.7	903.8	905.5	905.5	905.5	905.5	905.5
27.5°	868.1	870.9	873.7	875.1	875.4	875.5	875.8	876.0
30°	848.2	851.1	854.0	855.6	855.6	855.6	855.6	855.6
32.5°	826.4	829.5	832.7	834.5	835.1	835.7	836.3	836.9
35°	794.1	797.9	801.5	803.9	804.9	805.8	806.8	807.8
37.5°	760.8	764.9	769.2	771.6	772.4	773.1	774.0	774.8
40°	738.5	742.7	746.9	749.5	750.5	751.5	752.4	753.4
42.5°	715.3	719.9	724.6	727.5	728.9	730.3	731.6	733.0
45°	680.7	685.4	690.1	693.4	695.4	697.3	699.4	701.3
47.5°	645.7	651.0	656.2	659.7	661.2	662.8	664.2	665.8
50°	621.7	627.3	633.0	636.7	638.5	640.2	641.9	643.6
52.5°	597.2	603.1	608.9	612.9	615.1	617.2	619.3	621.4
55°	560.4	567.0	573.7	578.0	580.0	582.0	583.9	585.9
57.5°	522.8	529.5	536.1	540.7	543.0	545.3	547.6	549.9
60°	496.5	503.4	510.3	515.1	517.9	520.6	523.3	525.9
62.5°	471.7	478.6	485.4	490.2	492.7	495.2	497.7	500.3
65°	432.0	439.4	446.8	451.8	454.2	456.6	459.2	461.6
67.5°	392.6	400.6	408.7	413.8	415.9	418.0	420.0	422.1
70°	366.4	374.3	382.2	387.4	389.9	392.3	394.8	397.3
72.5°	340.2	348.3	356.4	361.7	364.1	366.6	369.1	371.5
75°	300.4	308.5	316.6	322.2	325.1	328.1	331.0	334.0
77.5°	263.1	271.7	280.2	285.7	287.9	290.2	292.4	294.7
80°	238.7	247.1	255.4	260.9	263.3	265.8	268.3	270.8
82.5°	216.5	224.9	233.3	238.7	241.2	243.6	246.1	248.6
85°	185.4	193.8	202.2	207.7	210.1	212.5	215.0	217.5
87.5°	159.6	168.0	176.5	182.0	184.4	186.9	189.4	191.9
90°	149.6	158.2	166.9	172.5	175.0	177.7	180.3	182.9
92.5°	146.1	154.5	162.9	168.2	170.4	172.6	174.8	177.0
95°	147.0	154.9	162.8	168.0	170.4	172.9	175.4	177.8
97.5°	150.5	158.2	165.8	170.8	173.3	175.7	178.1	180.6
100°	153.6	160.9	168.3	173.3	175.9	178.4	181.0	183.6
102.5°	158.0	165.2	172.3	177.1	179.5	182.0	184.4	186.9
105°	165.0	171.9	178.9	183.4	185.8	188.2	190.5	192.8
107.5°	173.0	179.9	186.7	191.1	193.2	195.3	197.4	199.5
110°	179.1	185.8	192.5	196.7	198.6	200.4	202.3	204.2

TEST NUMBER: P332004-930

CATALOG NUMBER: S123DIP-S1000D365U930-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	184.3	190.9	197.4	201.7	203.9	206.0	208.1	210.3
115°	193.6	199.5	205.5	209.5	211.3	213.3	215.2	217.0
117.5°	202.4	208.3	214.2	217.9	219.7	221.4	223.1	224.9
120°	208.8	214.4	220.0	223.6	225.2	226.8	228.4	230.0
122.5°	215.3	220.6	225.9	229.3	230.9	232.4	234.0	235.5
125°	224.9	229.8	234.7	237.9	239.4	240.8	242.3	243.8
127.5°	234.2	238.7	243.3	246.2	247.6	249.0	250.4	251.8
130°	240.4	244.8	249.3	252.0	253.1	254.0	255.1	256.2
132.5°	246.3	250.5	254.7	257.5	258.8	260.1	261.5	262.8
135°	255.6	259.8	264.0	266.6	267.7	268.9	269.9	271.1
137.5°	264.9	268.6	272.1	274.5	275.5	276.5	277.4	278.4
140°	271.3	274.9	278.6	280.8	281.6	282.3	283.2	283.9
142.5°	276.6	279.9	283.2	285.2	286.1	287.0	287.9	288.7
145°	287.3	289.3	291.1	292.4	293.2	293.9	294.6	295.4
147.5°	298.0	298.6	299.2	299.7	300.3	300.8	301.3	301.7
150°	305.1	305.1	305.1	305.2	305.2	305.4	305.5	305.6
152.5°	312.7	312.8	312.9	312.8	312.6	312.3	312.1	311.9
155°	323.8	324.0	324.3	324.2	323.8	323.3	322.9	322.4
157.5°	333.3	333.6	333.9	333.8	333.5	333.1	332.7	332.4
160°	339.2	339.5	339.8	339.8	339.6	339.3	339.1	338.8
162.5°	344.7	345.0	345.4	345.3	344.9	344.5	344.1	343.6
165°	351.7	352.0	352.5	352.5	352.0	351.6	351.1	350.7
167.5°	357.3	357.8	358.2	358.2	357.8	357.3	356.9	356.6
170°	360.4	360.9	361.3	361.3	360.9	360.4	360.0	359.5
172.5°	362.9	363.3	363.7	363.7	363.2	362.8	362.3	361.9
175°	365.5	365.9	366.3	366.2	365.8	365.3	364.9	364.4
177.5°	366.7	367.0	367.3	367.3	367.0	366.6	366.2	365.8
180°	366.8	366.8	366.8	366.8	366.8	366.8	366.8	366.8

(END OF REPORT)