

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: P332003-927

Luminaire Tested: **S123DIP-S1000D365U927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332003-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S1000D365U927-4F0-1E-UDD-D
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4476.2 lumens
Efficiency: N/A
Efficacy: 102.9 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

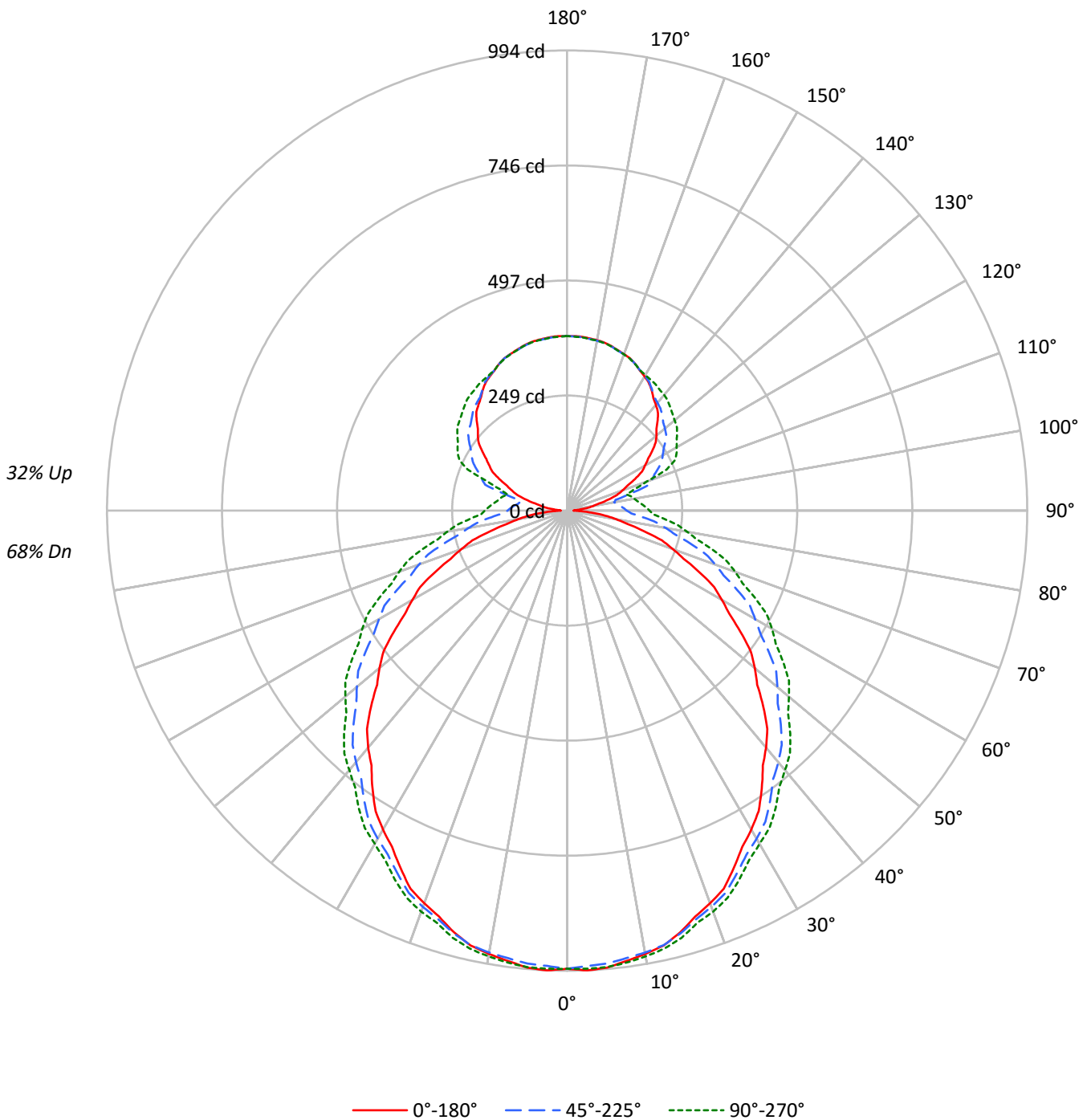
Input Watts (W): 43.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332003-927

CATALOG NUMBER: S123DIP-S1000D365U927-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P332003-927

CATALOG NUMBER: S123DIP-S1000D365U927-4F0-1E-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	111	111	111	111	105	105	105	105	93	93	93	83	83	83	73	73	73	68
1	100	95	91	87	94	90	86	82	80	77	74	71	68	66	62	60	59	54
2	91	82	76	70	85	78	72	66	69	64	60	61	57	54	54	51	48	44
3	83	72	64	57	77	68	61	55	61	55	50	54	49	45	47	44	40	37
4	75	64	55	48	71	60	52	46	54	47	42	48	42	38	42	38	35	31
5	69	57	48	41	65	54	46	40	48	41	36	43	37	33	38	33	30	27
6	64	51	42	36	60	48	40	34	43	37	32	38	33	29	34	30	26	24
7	59	46	37	31	55	44	36	30	39	33	28	35	30	25	31	27	23	21
8	55	42	33	28	51	40	32	27	36	29	25	32	27	23	29	24	21	18
9	51	38	30	25	48	36	29	24	33	26	22	29	24	20	26	22	19	17
10	48	35	27	22	45	33	26	21	30	24	20	27	22	18	24	20	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10654	10654	10654
5°	10687	10385	10392
10°	10592	10146	10095
15°	10455	9874	9773
20°	10260	9565	9418
25°	10019	9208	9043
30°	9772	8886	8665
35°	9496	8547	8362
40°	9231	8238	8039
45°	8938	7941	7779
50°	8650	7648	7494
55°	8332	7348	7238
60°	8020	7044	6974
65°	7702	6718	6661
70°	7222	6352	6341
75°	6614	5933	6016
80°	5915	5522	5642
85°	5267	5241	5428



TEST NUMBER: P332003-927

CATALOG NUMBER: S123DIP-S1000D365U927-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.8	2.1
10°-20°	267.5	6.0
20°-30°	400.0	8.9
30°-40°	477.7	10.7
40°-50°	499.9	11.2
50°-60°	469.1	10.5
60°-70°	391.8	8.8
70°-80°	280.3	6.3
80°-90°	168.2	3.8
90°-100°	118.6	2.6
100°-110°	142.4	3.2
110°-120°	208.3	4.7
120°-130°	229.1	5.1
130°-140°	226.6	5.1
140°-150°	202.4	4.5
150°-160°	161.0	3.6
160°-170°	103.9	2.3
170°-180°	35.8	0.8
0°-30°	761.3	17.0
0°-40°	1239.1	27.7
0°-60°	2208.0	49.3
0°-90°	3048.3	68.1
90°-120°	469.2	10.5
90°-150°	1127.3	25.2
90°-180°	1428.0	31.9
0°-180°	4476.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	990	990	990	990	990	
5°	991	988	982	990	990	94
15°	943	946	946	956	955	266
25°	852	862	866	879	880	392
35°	733	750	764	780	785	458
45°	599	625	652	672	681	462
55°	457	493	532	560	569	409
65°	316	358	405	436	448	312
75°	171	222	276	310	325	183
85°	53	107	164	199	211	55
90°	14	70	129	165	178	10
95°	29	61	115	149	162	30
105°	92	121	142	124	133	97
115°	162	178	218	245	256	160
125°	224	228	258	281	290	200
135°	277	278	290	310	315	213
145°	318	319	319	328	333	199
155°	349	349	349	350	348	161
165°	368	367	367	369	367	104
175°	377	376	376	377	375	36
180°	377	377	377	377	377	



TEST NUMBER: P332003-927

CATALOG NUMBER: S123DIP-S1000D365U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	989.8	989.8	989.8	989.8	989.8	989.8	989.8	989.8	989.8	989.8	989.8
2.5°	994.1	993.6	992.9	992.4	991.8	990.7	989.2	987.7	986.1	984.6	986.1
5°	990.9	990.4	989.9	989.4	989.0	988.0	986.6	985.1	983.7	982.2	984.1
7.5°	981.1	981.3	981.4	981.4	981.5	980.9	979.5	978.1	976.7	975.3	977.7
10°	972.6	973.0	973.5	974.0	974.5	974.1	972.9	971.7	970.5	969.3	971.7
12.5°	962.2	962.8	963.5	964.2	964.9	964.8	964.0	963.1	962.3	961.6	963.8
15°	943.4	944.1	944.8	945.5	946.3	946.5	946.3	946.0	945.8	945.5	948.0
17.5°	919.7	921.1	922.6	924.0	925.4	926.1	926.1	925.9	925.8	925.7	927.9
20°	902.5	903.9	905.3	906.7	908.2	909.2	909.7	910.1	910.6	911.1	913.2
22.5°	884.3	885.7	887.2	888.7	890.1	891.1	891.8	892.5	893.2	893.8	896.5
25°	851.8	854.1	856.6	859.0	861.3	862.9	863.6	864.4	865.1	865.8	868.9
27.5°	819.0	821.7	824.4	827.2	829.9	832.0	833.6	835.1	836.6	838.2	840.9
30°	795.7	798.8	801.9	805.0	808.2	810.6	812.6	814.5	816.4	818.3	821.3
32.5°	769.8	773.3	776.8	780.3	783.8	786.8	789.3	791.8	794.3	796.8	799.9
35°	733.2	737.0	740.8	744.7	748.5	751.9	755.1	758.2	761.3	764.5	768.0
37.5°	694.3	698.7	703.0	707.3	711.6	715.7	719.5	723.3	727.1	731.0	735.1
40°	668.4	672.8	677.1	681.4	685.7	690.3	695.1	699.9	704.6	709.5	713.5
42.5°	640.0	645.3	650.5	655.8	661.1	666.2	671.2	676.2	681.2	686.2	690.6
45°	599.4	605.2	611.0	616.7	622.5	628.4	634.3	640.3	646.3	652.3	656.9
47.5°	557.0	563.5	570.1	576.6	583.0	589.8	596.6	603.5	610.3	617.2	622.3
50°	529.4	536.1	542.8	549.5	556.2	563.3	570.7	578.1	585.6	593.0	598.5
52.5°	500.0	507.2	514.3	521.3	528.5	536.1	544.3	552.5	560.6	568.9	574.6
55°	457.2	465.1	472.9	480.9	488.8	497.0	505.6	514.3	522.9	531.6	538.1
57.5°	415.3	423.6	431.8	440.1	448.3	457.2	466.6	476.0	485.4	494.9	501.4
60°	386.0	394.6	403.2	411.9	420.5	429.7	439.5	449.4	459.2	469.1	475.7
62.5°	358.4	367.2	376.0	384.8	393.6	403.3	413.7	424.1	434.4	444.9	451.5
65°	315.9	325.3	334.6	344.0	353.3	363.2	373.8	384.3	394.8	405.4	412.6
67.5°	272.7	282.7	292.6	302.5	312.4	322.8	333.5	344.3	355.0	365.8	373.6
70°	242.6	252.9	263.2	273.5	283.8	294.7	306.2	317.7	329.2	340.7	348.4
72.5°	215.0	225.3	235.6	245.9	256.2	267.3	279.2	291.0	302.9	314.8	322.7
75°	171.4	182.7	193.9	205.3	216.5	228.1	240.1	252.1	264.0	276.0	283.9
77.5°	133.5	144.8	156.2	167.5	178.9	190.6	202.7	214.8	226.9	238.9	247.2
80°	106.7	118.5	130.2	142.0	153.7	165.8	178.2	190.8	203.2	215.6	223.8
82.5°	83.4	95.4	107.3	119.2	131.2	143.5	156.1	168.7	181.4	194.1	202.2
85°	52.8	64.8	76.8	88.8	100.8	113.1	125.8	138.5	151.1	163.9	172.1
87.5°	28.8	40.8	52.8	64.9	77.0	89.2	101.6	113.9	126.4	138.7	146.9
90°	14.3	26.7	39.1	51.4	63.8	76.4	89.4	102.5	115.5	128.6	137.0
92.5°	18.4	28.8	39.2	49.6	60.0	71.5	84.2	96.8	109.5	122.1	130.5
95°	28.9	35.7	42.5	49.4	56.1	65.8	78.1	90.5	103.0	115.4	123.3
97.5°	44.9	52.2	59.5	66.8	74.1	81.0	87.8	94.5	101.2	108.0	115.7
100°	57.0	65.9	74.9	83.7	92.7	97.8	99.1	100.4	101.7	103.1	110.5
102.5°	70.9	78.7	86.5	94.3	102.1	106.2	106.4	106.5	106.8	107.0	112.3
105°	92.1	98.5	104.9	111.4	117.8	123.3	128.1	132.8	137.4	142.2	137.8
107.5°	113.3	118.7	124.1	129.6	135.0	143.1	153.7	164.4	175.0	185.7	184.0
110°	127.4	132.2	137.0	141.8	146.6	154.2	164.5	174.8	185.0	195.3	199.4



TEST NUMBER: P332003-927

CATALOG NUMBER: S123DIP-S1000D365U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	141.7	145.8	149.7	153.7	157.7	164.6	174.5	184.4	194.3	204.2	210.2
115°	161.8	165.1	168.3	171.6	174.8	181.1	190.3	199.5	208.7	217.9	224.2
117.5°	182.2	184.4	186.6	188.9	191.2	196.5	204.9	213.3	221.6	230.0	236.1
120°	194.1	195.8	197.6	199.4	201.1	206.0	214.1	222.3	230.4	238.4	244.5
122.5°	207.1	208.2	209.3	210.3	211.4	215.9	223.6	231.4	239.2	246.9	252.5
125°	223.8	224.3	224.8	225.3	225.9	229.7	236.9	244.1	251.3	258.4	263.6
127.5°	241.1	241.3	241.6	241.9	242.1	245.3	251.3	257.4	263.4	269.4	274.4
130°	251.8	252.1	252.3	252.6	252.9	255.5	260.5	265.5	270.6	275.7	280.4
132.5°	261.3	261.7	262.1	262.6	263.1	265.3	269.3	273.4	277.4	281.5	286.1
135°	276.8	276.9	277.0	277.2	277.3	278.8	281.7	284.6	287.5	290.3	294.9
137.5°	290.0	290.3	290.6	290.8	291.1	292.1	293.7	295.3	296.9	298.6	302.6
140°	298.1	298.5	298.8	299.2	299.6	300.2	301.1	302.1	302.9	303.8	307.7
142.5°	306.3	306.6	306.7	306.9	307.1	307.4	307.7	308.0	308.3	308.7	312.1
145°	318.0	318.1	318.4	318.5	318.8	318.9	319.0	319.2	319.2	319.4	321.5
147.5°	327.8	328.1	328.4	328.7	328.9	329.2	329.3	329.4	329.5	329.6	330.3
150°	334.5	334.7	334.9	335.1	335.3	335.4	335.6	335.6	335.8	335.9	336.0
152.5°	340.6	340.6	340.7	340.8	340.9	341.0	341.0	341.1	341.2	341.3	341.5
155°	349.1	349.0	348.8	348.7	348.6	348.6	348.6	348.6	348.7	348.8	349.1
157.5°	355.7	355.7	355.7	355.6	355.6	355.6	355.5	355.5	355.4	355.4	355.7
160°	359.7	359.7	359.6	359.5	359.5	359.4	359.3	359.3	359.3	359.2	359.5
162.5°	363.5	363.4	363.2	363.1	362.9	362.7	362.7	362.7	362.6	362.5	362.9
165°	368.1	367.9	367.7	367.6	367.3	367.3	367.2	367.1	367.0	367.0	367.5
167.5°	371.7	371.5	371.2	371.0	370.7	370.6	370.6	370.6	370.6	370.6	371.1
170°	373.7	373.4	373.2	373.0	372.7	372.6	372.6	372.6	372.6	372.6	373.1
172.5°	375.0	374.8	374.5	374.1	373.8	373.8	373.8	373.8	373.9	373.9	374.5
175°	376.8	376.4	376.1	375.9	375.6	375.4	375.5	375.6	375.6	375.7	376.1
177.5°	377.2	377.0	376.8	376.5	376.2	376.1	376.2	376.2	376.3	376.4	376.8
180°	376.8	376.8	376.8	376.8	376.8	376.8	376.8	376.8	376.8	376.8	376.8



TEST NUMBER: P332003-927

CATALOG NUMBER: S123DIP-S1000D365U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	989.8	989.8	989.8	989.8	989.8	989.8	989.8	989.8
2.5°	987.7	989.2	990.7	991.4	991.2	991.0	990.9	990.6
5°	986.0	988.0	989.9	990.7	990.5	990.2	990.0	989.8
7.5°	980.1	982.5	984.9	986.0	985.7	985.4	985.1	984.8
10°	974.1	976.4	978.9	979.9	979.4	978.9	978.4	977.9
12.5°	965.9	968.1	970.3	971.2	970.7	970.3	969.8	969.3
15°	950.4	952.8	955.1	956.2	956.0	955.8	955.5	955.3
17.5°	930.0	932.2	934.4	935.3	934.9	934.6	934.3	933.9
20°	915.4	917.5	919.7	920.9	921.1	921.4	921.6	921.9
22.5°	899.3	902.0	904.8	906.0	905.9	905.8	905.6	905.5
25°	872.0	875.1	878.2	879.8	879.8	879.8	879.8	879.8
27.5°	843.5	846.2	848.9	850.3	850.6	850.7	851.0	851.1
30°	824.1	827.0	829.8	831.3	831.3	831.3	831.3	831.3
32.5°	803.0	806.0	809.1	810.9	811.4	812.0	812.6	813.2
35°	771.6	775.2	778.8	781.1	782.0	783.0	783.9	784.9
37.5°	739.2	743.2	747.3	749.7	750.5	751.2	752.0	752.8
40°	717.6	721.7	725.7	728.3	729.2	730.2	731.1	732.1
42.5°	695.1	699.5	704.0	706.9	708.2	709.6	710.9	712.3
45°	661.4	666.0	670.5	673.8	675.7	677.6	679.5	681.4
47.5°	627.4	632.6	637.6	641.0	642.5	644.0	645.4	646.9
50°	604.0	609.5	615.1	618.6	620.4	622.0	623.7	625.3
52.5°	580.3	586.0	591.7	595.6	597.6	599.7	601.7	603.8
55°	544.5	551.0	557.5	561.6	563.6	565.5	567.4	569.3
57.5°	507.9	514.4	520.9	525.4	527.6	529.8	532.1	534.3
60°	482.4	489.2	495.8	500.5	503.2	505.8	508.4	511.0
62.5°	458.3	465.0	471.7	476.3	478.7	481.2	483.6	486.1
65°	419.8	427.0	434.1	438.9	441.3	443.7	446.2	448.5
67.5°	381.4	389.3	397.1	402.1	404.1	406.2	408.1	410.1
70°	356.0	363.7	371.4	376.4	378.8	381.2	383.6	386.0
72.5°	330.6	338.4	346.3	351.4	353.8	356.2	358.6	361.0
75°	291.8	299.8	307.6	313.1	315.9	318.8	321.6	324.6
77.5°	255.6	264.0	272.3	277.6	279.7	281.9	284.2	286.4
80°	232.0	240.1	248.2	253.5	255.9	258.3	260.7	263.1
82.5°	210.4	218.5	226.6	232.0	234.3	236.7	239.1	241.5
85°	180.1	188.3	196.5	201.8	204.1	206.5	208.9	211.4
87.5°	155.1	163.3	171.5	176.8	179.2	181.6	184.0	186.5
90°	145.4	153.8	162.2	167.6	170.1	172.6	175.2	177.7
92.5°	138.8	147.2	155.5	160.8	163.1	165.4	167.6	169.9
95°	131.1	139.0	146.9	152.0	154.4	156.8	159.1	161.6
97.5°	123.3	130.9	138.6	143.6	146.1	148.5	151.0	153.4
100°	118.0	125.4	132.8	137.8	140.2	142.7	145.1	147.6
102.5°	117.5	122.7	127.9	131.7	134.3	136.8	139.3	141.8
105°	133.6	129.3	124.9	124.0	126.2	128.5	130.8	133.1
107.5°	182.4	180.7	179.0	175.2	169.0	162.8	156.6	150.4
110°	203.6	207.8	212.0	210.6	203.6	196.6	189.6	182.7



TEST NUMBER: P332003-927

CATALOG NUMBER: S123DIP-S1000D365U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	216.3	222.4	228.5	231.6	231.9	232.1	232.3	232.6
115°	230.6	236.9	243.3	247.6	249.8	251.9	254.1	256.3
117.5°	242.4	248.6	254.8	258.8	260.8	262.7	264.6	266.5
120°	250.5	256.4	262.4	266.3	268.0	269.7	271.3	273.0
122.5°	258.3	263.9	269.6	273.2	275.0	276.7	278.5	280.2
125°	268.8	273.9	279.1	282.6	284.3	286.1	288.0	289.8
127.5°	279.3	284.3	289.2	292.5	294.0	295.5	297.0	298.5
130°	285.3	290.1	294.9	297.9	299.2	300.6	301.9	303.2
132.5°	290.7	295.2	299.8	302.9	304.4	305.8	307.3	308.7
135°	299.4	303.9	308.3	311.1	312.1	313.1	314.1	315.1
137.5°	306.7	310.8	314.9	317.5	318.5	319.6	320.7	321.8
140°	311.6	315.4	319.2	321.7	322.7	323.8	324.9	326.0
142.5°	315.5	318.9	322.3	324.6	325.6	326.6	327.6	328.6
145°	323.4	325.5	327.6	329.1	330.0	331.0	331.9	332.9
147.5°	331.1	331.8	332.5	333.1	333.7	334.2	334.8	335.4
150°	336.2	336.3	336.4	336.6	336.9	337.2	337.5	337.8
152.5°	341.7	342.0	342.2	342.2	342.0	341.8	341.7	341.4
155°	349.4	349.7	350.1	350.0	349.7	349.3	348.9	348.5
157.5°	356.1	356.5	356.9	356.8	356.3	355.8	355.3	354.8
160°	359.9	360.3	360.7	360.6	360.2	359.7	359.3	358.9
162.5°	363.4	363.8	364.2	364.2	363.8	363.5	363.1	362.7
165°	368.0	368.5	369.0	369.0	368.6	368.1	367.7	367.3
167.5°	371.5	372.1	372.6	372.6	372.1	371.5	371.1	370.6
170°	373.6	374.1	374.5	374.5	374.1	373.6	373.1	372.6
172.5°	374.9	375.4	375.9	375.9	375.3	374.8	374.2	373.7
175°	376.5	377.0	377.4	377.4	376.9	376.4	375.9	375.4
177.5°	377.2	377.6	378.0	377.9	377.4	376.9	376.4	375.9
180°	376.8	376.8	376.8	376.8	376.8	376.8	376.8	376.8

(END OF REPORT)