

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: P332012-927

Luminaire Tested: **S123DIP-S1000D585U927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332012-927
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-S1000D585U927-4F0-1E-UDD-D
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 585 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5182.4 lumens
Efficiency: N/A
Efficacy: 106.2 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

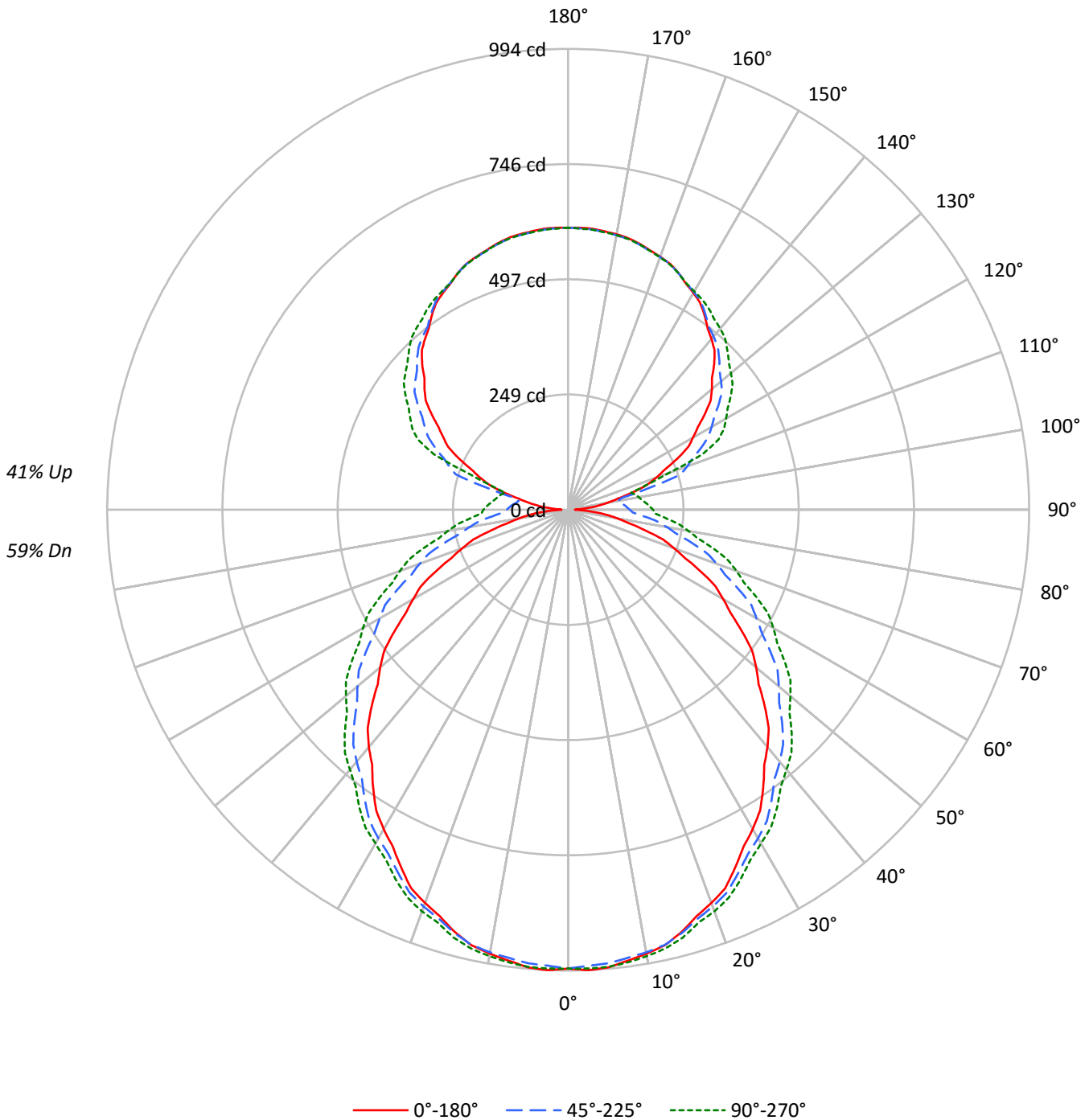
Input Watts (W): 48.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332012-927

CATALOG NUMBER: S123DIP-S1000D585U927-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P332012-927

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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	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64	59
1	99	94	89	85	92	87	83	80	76	73	70	65	63	61	55	53	52	47
2	89	81	74	69	83	76	70	65	66	61	57	56	53	50	48	45	43	38
3	81	71	63	57	75	66	59	53	57	52	47	49	45	41	42	39	36	32
4	74	63	54	48	69	58	51	45	51	45	40	44	39	35	37	33	31	27
5	68	56	47	41	63	52	44	39	45	39	34	39	34	30	33	29	26	23
6	63	50	41	35	58	47	39	33	41	35	30	35	30	26	30	26	23	20
7	58	45	37	31	54	42	35	29	37	31	26	32	27	23	27	24	20	18
8	54	41	33	27	50	38	31	26	34	28	23	29	24	21	25	21	18	16
9	50	37	29	24	46	35	28	23	31	25	21	27	22	19	23	19	16	14
10	47	34	27	22	43	32	25	21	28	23	19	25	20	17	22	18	15	13

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: P332012-927

CATALOG NUMBER: S123DIP-S1000D585U927-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.8	1.8
10°-20°	267.5	5.2
20°-30°	400.0	7.7
30°-40°	477.7	9.2
40°-50°	499.9	9.6
50°-60°	469.1	9.1
60°-70°	391.8	7.6
70°-80°	280.3	5.4
80°-90°	168.9	3.3
90°-100°	127.0	2.5
100°-110°	182.5	3.5
110°-120°	304.6	5.9
120°-130°	351.7	6.8
130°-140°	357.6	6.9
140°-150°	324.9	6.3
150°-160°	259.8	5.0
160°-170°	167.7	3.2
170°-180°	57.8	1.1
0°-30°	761.3	14.7
0°-40°	1239.1	23.9
0°-60°	2208.0	42.6
0°-90°	3048.9	58.8
90°-120°	614.0	11.8
90°-150°	1648.2	31.8
90°-180°	2133.0	41.2
0°-180°	5182.4	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	72	133	170	183	11
95°	40	65	121	156	168	43
105°	143	173	180	133	141	151
115°	258	275	316	346	357	255
125°	359	364	396	419	428	321
135°	445	448	461	481	486	343
145°	512	515	516	525	529	320
155°	563	563	563	565	562	259
165°	594	593	592	596	593	168
175°	608	606	606	609	606	58
180°	608	608	608	608	608	



TEST NUMBER: P332012-927

CATALOG NUMBER: S123DIP-S1000D585U927-4F0-1E-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	40.9	53.0	65.2	77.3	89.6	102.1	114.5	127.1	139.5	147.7
90°	14.5	27.3	39.9	52.7	65.4	78.6	92.1	105.6	119.1	132.7	141.2
92.5°	21.5	31.8	42.1	52.5	62.8	74.5	87.5	100.4	113.5	126.5	135.1
95°	39.5	44.7	49.9	55.1	60.4	69.4	82.2	95.1	107.9	120.7	128.9
97.5°	66.0	72.6	79.1	85.7	92.3	97.6	101.6	105.6	109.6	113.5	121.4
100°	86.0	95.8	105.4	115.1	124.8	127.3	122.6	118.0	113.4	108.7	116.5
102.5°	109.1	117.4	125.7	134.1	142.4	143.5	137.2	130.9	124.6	118.4	122.6
105°	143.3	150.1	157.0	163.8	170.7	174.8	176.0	177.3	178.6	179.8	168.7
107.5°	178.3	184.1	189.8	195.6	201.4	209.8	221.1	232.3	243.5	254.7	248.0
110°	201.7	206.8	211.9	217.0	222.1	230.0	240.7	251.4	262.1	272.7	275.7



TEST NUMBER: P332012-927

CATALOG NUMBER: S123DIP-S1000D585U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	224.8	229.1	233.3	237.6	241.9	249.1	259.4	269.7	280.0	290.3	296.4
115°	257.9	261.4	264.9	268.4	271.9	278.4	287.9	297.5	307.0	316.5	323.2
117.5°	290.9	293.4	296.0	298.5	301.0	306.5	315.1	323.6	332.2	340.7	347.3
120°	310.6	312.8	314.9	317.0	319.1	324.2	332.4	340.6	348.8	357.0	363.4
122.5°	331.6	333.0	334.4	335.7	337.1	341.7	349.6	357.5	365.4	373.4	379.2
125°	359.3	360.0	360.9	361.7	362.5	366.5	373.9	381.3	388.6	395.9	401.2
127.5°	387.1	387.7	388.2	388.8	389.4	392.8	399.0	405.2	411.5	417.7	422.8
130°	404.5	405.0	405.6	406.2	406.7	409.6	414.8	420.0	425.2	430.4	435.3
132.5°	420.3	421.0	421.8	422.5	423.3	425.7	429.8	434.0	438.2	442.4	447.1
135°	445.4	445.8	446.2	446.5	446.9	448.5	451.6	454.6	457.6	460.7	465.3
137.5°	466.8	467.5	468.0	468.6	469.1	470.3	472.0	473.7	475.4	477.1	481.4
140°	480.5	481.1	481.6	482.3	482.9	483.7	484.7	485.7	486.7	487.7	491.8
142.5°	493.8	494.2	494.6	495.0	495.5	495.9	496.4	496.8	497.3	497.7	501.2
145°	512.5	513.0	513.5	514.0	514.4	514.8	514.9	515.2	515.3	515.6	517.6
147.5°	529.1	529.6	530.0	530.4	530.9	531.2	531.5	531.6	531.9	532.1	532.8
150°	540.0	540.3	540.5	540.8	541.1	541.4	541.6	541.8	542.0	542.2	542.4
152.5°	549.7	549.9	549.9	550.1	550.2	550.4	550.5	550.6	550.7	550.9	551.2
155°	563.4	563.2	563.0	562.8	562.6	562.6	562.7	562.8	562.8	563.0	563.5
157.5°	574.1	574.1	574.0	574.0	574.0	573.9	573.9	573.8	573.6	573.5	574.2
160°	580.6	580.5	580.4	580.3	580.2	580.1	580.0	579.9	579.8	579.7	580.3
162.5°	586.8	586.5	586.2	586.0	585.7	585.5	585.4	585.3	585.2	585.1	585.8
165°	594.1	593.8	593.6	593.3	592.9	592.7	592.6	592.6	592.5	592.3	593.2
167.5°	599.9	599.5	599.1	598.7	598.3	598.1	598.1	598.1	598.1	598.1	599.0
170°	603.2	602.8	602.4	602.0	601.6	601.3	601.3	601.3	601.3	601.3	602.2
172.5°	605.4	604.9	604.4	603.9	603.4	603.2	603.3	603.4	603.5	603.6	604.4
175°	608.2	607.7	607.1	606.7	606.2	605.9	606.0	606.2	606.3	606.3	607.0
177.5°	608.9	608.5	608.1	607.7	607.3	607.1	607.2	607.3	607.4	607.4	608.1
180°	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2



TEST NUMBER: P332012-927

CATALOG NUMBER: S123DIP-S1000D585U927-4F0-1E-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°	156.0	164.2	172.5	177.8	180.2	182.7	185.1	187.5
90°	149.8	158.4	166.8	172.5	175.1	177.6	180.2	182.8
92.5°	143.7	152.3	160.9	166.4	168.7	171.0	173.3	175.6
95°	137.0	145.1	153.3	158.5	160.9	163.3	165.7	168.1
97.5°	129.4	137.4	145.3	150.5	153.0	155.5	158.0	160.5
100°	124.2	132.0	139.7	144.8	147.3	149.8	152.3	154.8
102.5°	126.9	131.2	135.5	138.9	141.4	144.0	146.6	149.2
105°	157.7	146.6	135.5	131.2	133.6	135.9	138.3	140.6
107.5°	241.5	234.9	228.2	219.3	208.0	196.7	185.4	174.1
110°	278.6	281.5	284.5	279.6	267.2	254.8	242.3	229.9



TEST NUMBER: P332012-927

CATALOG NUMBER: S123DIP-S1000D585U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	302.5	308.6	314.7	317.3	316.4	315.5	314.6	313.6
115°	330.0	336.8	343.5	348.1	350.4	352.7	355.0	357.4
117.5°	353.8	360.3	366.8	371.0	373.0	374.9	376.8	378.8
120°	369.6	376.0	382.3	386.3	388.0	389.7	391.3	393.0
122.5°	385.1	390.9	396.9	400.7	402.4	404.2	405.9	407.7
125°	406.4	411.7	416.9	420.4	422.3	424.2	426.1	427.9
127.5°	427.8	432.8	437.9	441.2	442.6	444.0	445.4	446.9
130°	440.3	445.2	450.2	453.3	454.5	455.7	457.0	458.2
132.5°	451.9	456.6	461.4	464.5	465.8	467.1	468.5	469.8
135°	469.9	474.5	479.2	481.9	482.8	483.7	484.6	485.5
137.5°	485.7	489.9	494.2	496.9	497.8	498.8	499.8	500.8
140°	495.7	499.8	503.7	506.3	507.2	508.3	509.2	510.2
142.5°	504.8	508.3	511.8	514.0	515.0	515.9	516.8	517.7
145°	519.8	521.9	524.0	525.5	526.5	527.4	528.4	529.3
147.5°	533.6	534.4	535.2	535.8	536.1	536.5	536.9	537.3
150°	542.6	542.8	543.0	543.2	543.4	543.5	543.8	543.9
152.5°	551.6	551.9	552.3	552.3	551.9	551.6	551.2	550.9
155°	564.0	564.5	565.0	564.9	564.4	563.7	563.2	562.5
157.5°	574.7	575.4	576.0	575.8	575.0	574.3	573.5	572.7
160°	580.9	581.5	582.1	582.0	581.4	580.7	580.0	579.2
162.5°	586.5	587.2	587.9	587.9	587.2	586.6	586.0	585.4
165°	594.0	594.8	595.6	595.6	594.9	594.2	593.5	592.8
167.5°	599.8	600.6	601.3	601.3	600.6	599.8	599.0	598.1
170°	603.0	603.8	604.6	604.6	603.8	603.0	602.2	601.3
172.5°	605.1	605.9	606.7	606.7	605.9	605.0	604.0	603.2
175°	607.8	608.5	609.2	609.1	608.3	607.5	606.7	605.9
177.5°	608.7	609.3	610.0	609.9	609.1	608.3	607.5	606.7
180°	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2

(END OF REPORT)