

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: P331451-927

Luminaire Tested: **SA2XXDIP-C1005D925U927-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P331451-927  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: SA2XXDIP-C1005D925U927-4F0-1E-UDD-D1  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1005 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 925 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

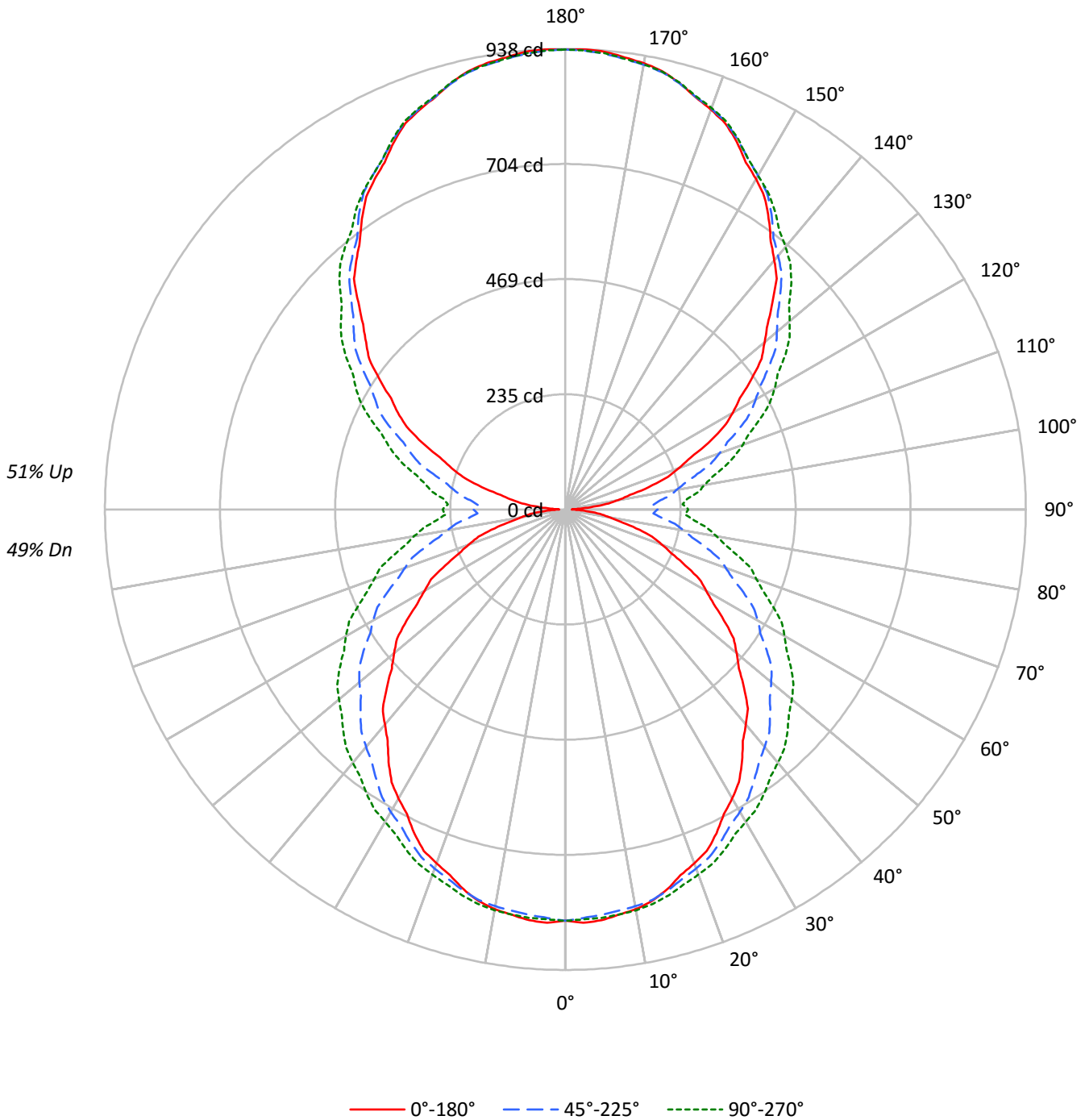
Lumens per Lamp: N/A  
Luminaire Lumens: 5819.1 lumens  
Efficiency: N/A  
Efficacy: 87.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')  
CIE Type: General Diffuse

Input Watts (W): 66.8  
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: P331451-927  
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### Luminous Intensity Polar Plot





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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	107	107	107	107	98	98	98	98	83	83	83	68	68	68	55	55	55	49
1	96	91	87	83	88	84	80	77	70	67	65	58	56	54	46	45	44	38
2	87	79	72	66	79	72	67	62	61	56	52	50	47	44	40	38	36	31
3	79	69	61	55	72	63	56	51	53	48	43	44	40	36	35	32	30	25
4	72	60	52	46	66	56	48	43	47	41	37	39	34	31	31	28	25	21
5	66	54	45	39	60	50	42	36	42	36	31	34	30	26	28	24	22	18
6	61	48	40	33	55	44	37	31	37	32	27	31	26	23	25	22	19	16
7	56	43	35	29	51	40	33	27	34	28	24	28	24	20	23	19	17	14
8	52	39	31	26	47	36	29	24	31	25	21	26	21	18	21	17	15	12
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	19	16	13	11
10	45	33	25	20	41	30	24	19	26	20	17	22	17	14	18	14	12	10

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	13525	13525	13525
5°	13591	13020	12971
10°	13506	12635	12493
15°	13320	12228	11990
20°	13085	11791	11506
25°	12852	11370	11066
30°	12525	10939	10626
35°	12192	10521	10314
40°	11845	10165	10004
45°	11515	9846	9739
50°	11159	9559	9477
55°	10787	9249	9211
60°	10329	8927	8928
65°	9856	8551	8595
70°	9323	8147	8233
75°	8642	7750	7901
80°	7567	7345	7563
85°	6539	6995	7303



TEST NUMBER: P331451-927

CATALOG NUMBER: SA2XXDIP-C1005D925U927-4F0-1E-UDD-D1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.4	1.4
10°-20°	227.6	3.9
20°-30°	344.9	5.9
30°-40°	420.1	7.2
40°-50°	452.0	7.8
50°-60°	438.9	7.5
60°-70°	383.2	6.6
70°-80°	295.0	5.1
80°-90°	201.8	3.5
90°-100°	195.8	3.4
100°-110°	284.0	4.9
110°-120°	380.9	6.5
120°-130°	451.2	7.8
130°-140°	480.6	8.3
140°-150°	458.8	7.9
150°-160°	382.5	6.6
160°-170°	253.7	4.4
170°-180°	88.7	1.5
0°-30°	651.9	11.2
0°-40°	1072.0	18.4
0°-60°	1962.9	33.7
0°-90°	2843.0	48.9
90°-120°	860.7	14.8
90°-150°	2251.2	38.7
90°-180°	2976.0	51.1
0°-180°	5819.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	838	838	838	838	838	
5°	840	836	829	836	835	80
15°	801	804	804	814	813	226
25°	728	737	748	762	766	335
35°	628	648	671	697	706	392
45°	515	548	590	626	640	397
55°	395	439	501	544	561	353
65°	270	330	401	449	466	268
75°	149	218	295	345	363	158
85°	44	119	197	246	265	47
90°	13	94	188	233	250	10
95°	51	116	190	234	249	55
105°	176	215	278	321	336	186
115°	321	341	392	426	439	317
125°	463	471	506	535	547	414
135°	596	605	619	643	651	461
145°	722	728	733	741	744	452
155°	826	828	831	834	832	380
165°	899	898	898	903	900	253
175°	935	933	931	936	932	89
180°	937	937	937	937	937	



TEST NUMBER: P331451-927

CATALOG NUMBER: SA2XXDIP-C1005D925U927-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	837.7	837.7	837.7	837.7	837.7	837.7	837.7	837.7	837.7	837.7	837.7
2.5°	842.6	841.9	841.2	840.6	840.0	838.8	837.3	835.8	834.3	832.8	833.9
5°	840.1	839.3	838.5	837.7	836.9	835.7	834.1	832.4	830.8	829.2	830.8
7.5°	832.6	832.0	831.5	831.0	830.4	829.6	828.3	827.0	825.9	824.6	826.5
10°	826.8	826.2	825.7	825.1	824.6	823.9	823.2	822.3	821.5	820.7	822.8
12.5°	817.1	817.1	817.3	817.4	817.5	817.2	816.7	816.0	815.5	814.8	817.1
15°	801.3	801.8	802.3	802.9	803.4	803.7	803.7	803.7	803.7	803.7	806.1
17.5°	780.9	782.0	783.2	784.3	785.4	786.4	787.3	788.1	789.0	789.9	792.4
20°	767.3	768.7	770.0	771.3	772.7	773.9	775.0	776.0	777.1	778.2	781.2
22.5°	752.7	754.2	755.8	757.4	759.0	760.5	762.0	763.5	765.0	766.5	769.5
25°	728.4	730.3	732.2	734.1	736.0	738.2	740.5	743.0	745.4	747.8	751.1
27.5°	699.3	702.3	705.4	708.5	711.6	714.5	717.4	720.3	723.1	726.0	730.1
30°	679.9	683.3	686.9	690.4	693.9	697.4	700.9	704.4	707.9	711.5	715.7
32.5°	658.5	662.4	666.4	670.3	674.2	678.3	682.5	686.6	690.8	694.9	699.9
35°	627.6	632.2	636.8	641.4	646.0	650.9	656.0	661.1	666.2	671.4	677.3
37.5°	594.1	599.4	604.8	610.0	615.3	621.2	627.9	634.5	641.2	647.8	654.4
40°	571.8	577.7	583.7	589.6	595.6	602.1	609.4	616.7	624.0	631.3	638.3
42.5°	550.5	556.3	562.3	568.2	574.2	581.3	589.7	598.1	606.4	614.8	622.4
45°	514.8	522.0	529.3	536.6	543.9	552.2	561.7	571.2	580.6	590.0	598.4
47.5°	479.6	487.5	495.4	503.4	511.3	520.8	531.9	542.9	554.0	565.0	573.8
50°	455.3	463.7	472.0	480.4	488.7	499.0	511.1	523.2	535.4	547.6	556.7
52.5°	432.0	440.8	449.6	458.4	467.1	477.9	490.7	503.5	516.3	529.1	538.4
55°	394.6	404.3	414.0	423.7	433.4	445.3	459.3	473.3	487.4	501.4	511.1
57.5°	357.7	368.6	379.5	390.5	401.5	414.1	428.4	442.7	457.0	471.3	481.7
60°	331.4	343.0	354.7	366.2	377.9	391.3	406.7	422.1	437.4	452.8	463.1
62.5°	308.2	320.1	332.2	344.2	356.2	369.9	385.3	400.7	416.1	431.5	442.4
65°	269.5	282.7	296.0	309.2	322.4	337.0	352.9	368.8	384.7	400.6	411.7
67.5°	234.1	247.9	261.7	275.5	289.3	304.4	320.7	337.0	353.2	369.6	380.7
70°	208.8	222.8	236.9	250.9	264.9	280.3	297.1	313.8	330.5	347.2	358.8
72.5°	185.5	199.9	214.4	228.9	243.4	259.0	276.0	292.9	309.9	326.9	338.2
75°	149.3	164.5	179.5	194.6	209.8	225.9	243.2	260.5	277.7	295.0	306.6
77.5°	114.4	130.2	146.0	161.8	177.6	194.2	211.8	229.3	246.8	264.4	276.0
80°	91.0	107.5	124.0	140.5	156.9	173.9	191.4	209.0	226.5	244.0	255.3
82.5°	71.6	87.9	104.1	120.3	136.6	153.6	171.3	189.1	206.8	224.6	235.9
85°	43.7	60.4	77.2	93.9	110.6	127.6	144.9	162.2	179.4	196.7	208.0
87.5°	23.9	40.5	57.0	73.4	90.0	107.3	125.2	143.3	161.4	179.4	190.4
90°	12.9	30.7	48.5	66.2	84.0	103.4	124.5	145.7	166.8	187.9	198.4
92.5°	25.3	41.4	57.4	73.6	89.7	106.5	124.1	141.6	159.1	176.7	187.3
95°	50.9	65.3	79.7	94.1	108.6	124.1	140.6	157.2	173.6	190.2	200.5
97.5°	83.6	96.4	109.2	122.1	134.9	149.4	165.6	181.8	198.0	214.2	224.2
100°	108.9	120.3	131.7	143.1	154.5	167.9	183.6	199.2	214.8	230.5	240.5
102.5°	134.5	144.7	155.0	165.2	175.5	188.2	203.6	219.0	234.3	249.6	259.5
105°	176.0	184.4	192.7	201.1	209.5	220.8	235.2	249.5	264.0	278.3	288.1
107.5°	219.1	226.2	233.2	240.2	247.2	257.5	270.9	284.3	297.8	311.2	320.4
110°	246.0	252.4	258.9	265.3	271.8	281.6	294.9	308.1	321.3	334.5	343.1



TEST NUMBER: P331451-927

CATALOG NUMBER: SA2XXDIP-C1005D925U927-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	276.3	281.9	287.5	293.1	298.7	307.7	320.1	332.6	345.0	357.4	365.6
115°	321.1	325.1	329.2	333.1	337.2	345.1	356.9	368.7	380.4	392.2	400.1
117.5°	364.5	367.8	371.1	374.5	377.9	384.6	394.9	405.1	415.3	425.6	433.2
120°	394.2	396.6	399.2	401.6	404.1	410.0	419.5	428.8	438.2	447.6	455.2
122.5°	421.4	423.5	425.6	427.7	429.8	435.5	444.7	453.8	463.0	472.1	479.0
125°	462.6	464.1	465.7	467.3	468.9	473.7	481.8	489.9	498.0	506.1	512.9
127.5°	503.8	505.6	507.2	509.0	510.7	514.8	521.1	527.4	533.8	540.1	546.1
130°	529.7	531.7	533.8	535.8	537.8	541.5	546.8	552.1	557.4	562.7	568.9
132.5°	558.8	560.4	562.0	563.6	565.2	568.2	572.7	577.1	581.5	586.0	591.4
135°	596.5	598.4	600.4	602.3	604.2	606.7	609.7	612.8	615.8	618.9	624.4
137.5°	637.5	639.0	640.5	642.1	643.6	645.2	646.8	648.4	650.1	651.7	656.6
140°	662.1	663.5	664.7	666.1	667.3	668.8	670.2	671.5	673.0	674.4	678.7
142.5°	687.5	688.7	690.1	691.3	692.7	693.6	694.3	695.1	695.8	696.5	700.1
145°	722.5	723.8	725.0	726.3	727.5	728.6	729.7	730.7	731.8	732.8	734.7
147.5°	754.9	756.5	758.0	759.4	760.9	762.0	762.7	763.3	764.1	764.8	765.4
150°	777.1	778.2	779.2	780.3	781.3	782.2	782.9	783.6	784.3	785.1	785.5
152.5°	796.7	797.8	798.8	799.9	801.0	801.9	802.7	803.6	804.4	805.3	806.0
155°	826.2	826.6	827.2	827.8	828.2	828.8	829.3	829.8	830.4	830.8	831.8
157.5°	851.3	851.6	852.0	852.3	852.7	853.0	853.3	853.7	854.0	854.3	855.5
160°	866.5	866.8	867.1	867.5	867.8	868.2	868.3	868.5	868.6	868.8	869.9
162.5°	880.4	880.4	880.5	880.6	880.7	880.7	881.0	881.1	881.3	881.5	882.6
165°	898.9	898.7	898.5	898.3	898.2	898.1	898.1	898.1	898.1	898.1	899.3
167.5°	914.3	913.9	913.3	912.8	912.3	912.0	912.0	911.9	911.9	911.8	913.1
170°	922.6	922.0	921.5	921.0	920.4	920.1	920.0	919.8	919.6	919.4	920.7
172.5°	928.3	927.7	927.2	926.7	926.1	925.8	925.7	925.4	925.3	925.1	926.4
175°	935.3	934.7	934.1	933.7	933.1	932.7	932.3	932.0	931.6	931.3	932.5
177.5°	938.1	937.6	937.2	936.8	936.4	936.0	935.7	935.5	935.2	934.9	935.7
180°	936.8	936.8	936.8	936.8	936.8	936.8	936.8	936.8	936.8	936.8	936.8



TEST NUMBER: P331451-927

CATALOG NUMBER: SA2XXDIP-C1005D925U927-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	837.7	837.7	837.7	837.7	837.7	837.7	837.7	837.7
2.5°	835.0	836.1	837.2	837.5	837.0	836.6	836.1	835.8
5°	832.4	834.1	835.7	836.3	836.1	835.8	835.5	835.3
7.5°	828.5	830.4	832.3	833.2	832.9	832.7	832.3	832.1
10°	825.0	827.2	829.3	830.3	830.0	829.7	829.5	829.2
12.5°	819.2	821.3	823.5	824.4	824.2	823.9	823.6	823.4
15°	808.6	811.0	813.4	814.5	814.2	814.0	813.7	813.4
17.5°	795.0	797.5	800.0	801.3	801.3	801.3	801.3	801.3
20°	784.1	787.1	790.0	791.5	791.5	791.5	791.5	791.5
22.5°	772.5	775.5	778.4	780.1	780.5	781.0	781.4	781.9
25°	754.3	757.6	760.8	762.8	763.7	764.5	765.2	766.0
27.5°	734.2	738.3	742.4	744.7	745.4	745.9	746.6	747.1
30°	720.1	724.4	728.7	731.3	732.1	732.8	733.7	734.5
32.5°	704.9	709.8	714.8	718.0	719.5	720.9	722.4	723.8
35°	683.3	689.2	695.1	699.0	700.9	702.8	704.7	706.5
37.5°	661.0	667.6	674.1	678.4	680.4	682.5	684.4	686.4
40°	645.3	652.4	659.3	664.1	666.5	668.9	671.4	673.8
42.5°	630.1	637.8	645.5	650.5	652.9	655.4	657.7	660.2
45°	606.7	615.1	623.4	629.0	631.7	634.4	637.1	639.8
47.5°	582.5	591.2	600.0	605.9	608.8	611.8	614.7	617.7
50°	565.9	575.0	584.2	590.3	593.3	596.2	599.2	602.1
52.5°	547.9	557.2	566.6	572.9	576.1	579.3	582.5	585.7
55°	520.9	530.5	540.3	546.8	550.3	553.9	557.4	560.9
57.5°	492.3	502.7	513.2	520.1	523.7	527.3	530.8	534.4
60°	473.3	483.6	493.8	500.9	504.6	508.4	512.2	515.9
62.5°	453.3	464.1	475.1	482.3	485.8	489.4	493.0	496.5
65°	422.8	433.8	444.9	452.2	455.7	459.1	462.7	466.2
67.5°	391.9	403.1	414.2	421.7	425.3	429.0	432.7	436.3
70°	370.4	382.0	393.6	401.0	404.3	407.5	410.7	414.0
72.5°	349.6	361.0	372.3	380.0	383.9	387.8	391.7	395.5
75°	318.2	329.8	341.4	349.0	352.4	356.0	359.5	363.0
77.5°	287.5	299.0	310.6	318.3	322.0	325.8	329.6	333.4
80°	266.6	278.1	289.4	296.9	300.7	304.4	308.2	312.0
82.5°	247.2	258.6	269.9	277.3	280.9	284.5	288.0	291.6
85°	219.4	230.7	242.0	249.5	253.3	257.1	260.9	264.7
87.5°	201.3	212.2	223.2	230.4	233.9	237.3	240.8	244.3
90°	208.8	219.3	229.7	236.6	240.0	243.4	246.8	250.3
92.5°	198.0	208.6	219.3	226.2	229.5	232.7	236.0	239.3
95°	210.7	220.9	231.2	237.8	240.7	243.6	246.4	249.3
97.5°	234.2	244.2	254.1	260.7	263.9	267.0	270.2	273.3
100°	250.5	260.5	270.5	276.8	279.6	282.4	285.2	288.0
102.5°	269.4	279.3	289.2	295.6	298.4	301.2	304.0	306.8
105°	297.9	307.7	317.5	323.9	326.9	329.8	332.8	335.7
107.5°	329.6	338.8	348.1	353.7	355.9	358.1	360.2	362.3
110°	351.7	360.4	369.0	374.5	377.0	379.5	381.9	384.3





TEST NUMBER: P331451-927

CATALOG NUMBER: SA2XXDIP-C1005D925U927-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	373.8	382.1	390.2	395.7	398.2	400.8	403.4	406.0
115°	408.1	416.0	423.9	429.0	431.5	434.0	436.4	438.9
117.5°	440.7	448.3	455.8	460.7	463.0	465.2	467.4	469.7
120°	462.7	470.2	477.8	482.8	485.2	487.7	490.1	492.6
122.5°	485.9	492.9	499.8	504.3	506.4	508.7	510.8	512.9
125°	519.7	526.4	533.1	537.7	540.0	542.2	544.4	546.7
127.5°	552.2	558.3	564.3	568.2	570.1	571.9	573.7	575.5
130°	575.0	581.1	587.2	591.0	592.5	593.9	595.3	596.8
132.5°	596.9	602.5	607.9	611.5	613.1	614.7	616.2	617.8
135°	629.9	635.4	640.9	644.4	646.1	647.7	649.4	650.9
137.5°	661.4	666.2	671.1	674.0	675.1	676.3	677.4	678.5
140°	683.0	687.4	691.7	694.3	695.2	696.1	697.0	697.9
142.5°	703.7	707.3	710.9	713.0	713.8	714.4	715.1	715.8
145°	736.4	738.2	740.1	741.2	741.9	742.5	743.2	743.9
147.5°	766.0	766.6	767.2	767.5	767.5	767.5	767.5	767.4
150°	786.1	786.6	787.1	787.1	786.6	786.1	785.5	785.1
152.5°	806.6	807.2	807.9	807.9	807.2	806.6	806.0	805.3
155°	832.7	833.5	834.4	834.6	834.0	833.5	833.0	832.4
157.5°	856.7	857.9	859.0	859.2	858.4	857.5	856.7	855.9
160°	870.9	872.0	873.1	873.2	872.5	871.8	871.1	870.4
162.5°	883.8	885.0	886.2	886.5	885.6	884.7	883.9	883.0
165°	900.6	901.7	903.0	903.2	902.3	901.4	900.6	899.7
167.5°	914.3	915.5	916.7	916.9	916.0	915.0	914.2	913.2
170°	921.9	923.1	924.3	924.4	923.4	922.3	921.2	920.2
172.5°	927.6	928.8	930.0	930.1	929.1	928.0	926.9	925.9
175°	933.7	934.9	936.2	936.3	935.3	934.1	933.1	932.1
177.5°	936.6	937.5	938.3	938.3	937.5	936.6	935.7	934.9
180°	936.8	936.8	936.8	936.8	936.8	936.8	936.8	936.8

(END OF REPORT)