

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: P331433-927

Luminaire Tested: **S122DIP-S1005D530U927-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P331433-927  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122DIP-S1005D530U927-4F0-1E-UDD-D1  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1005 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 530 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

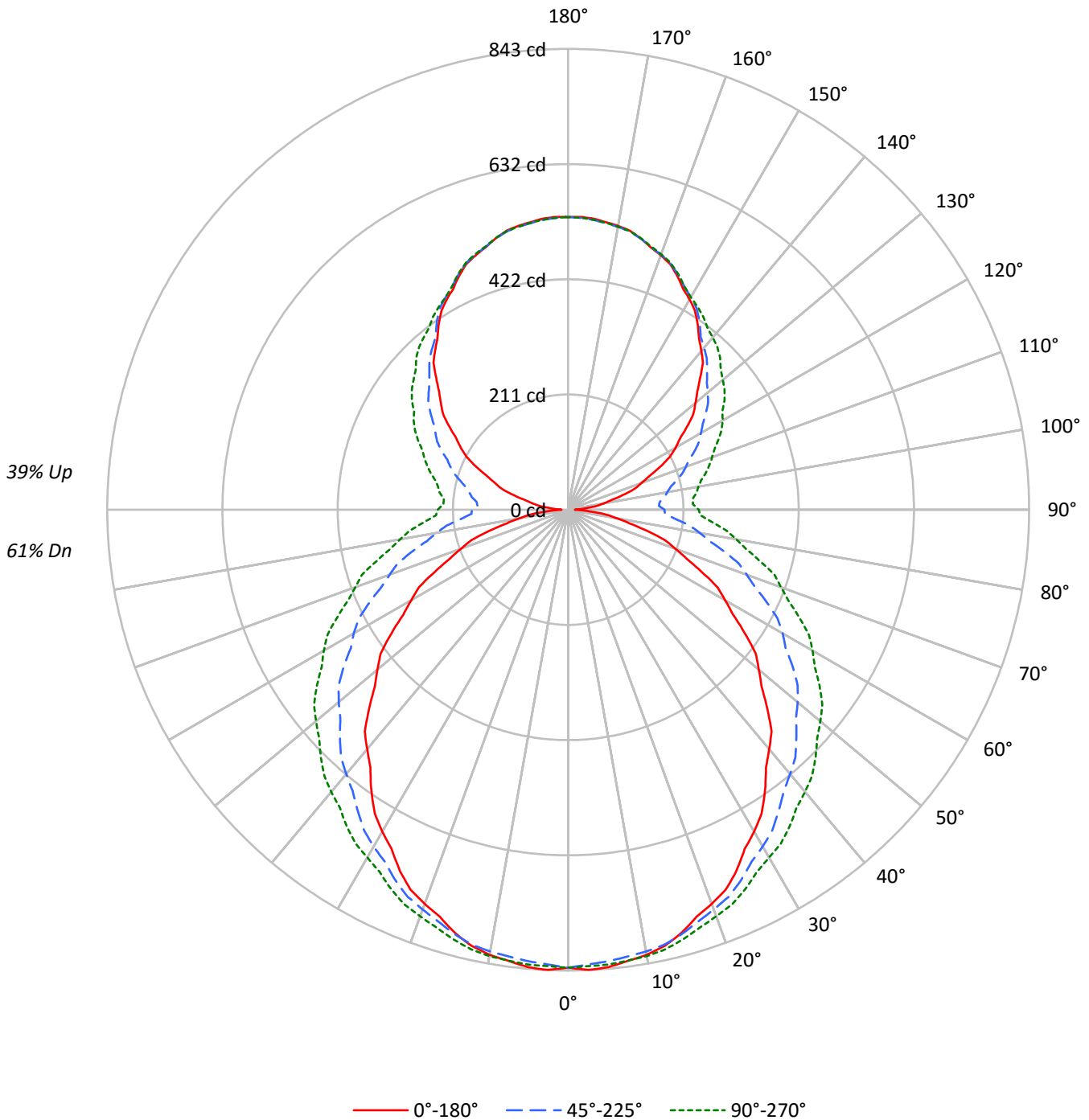
Lumens per Lamp: N/A  
Luminaire Lumens: 4694.8 lumens  
Efficiency: N/A  
Efficacy: 85.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')  
CIE Type: Semi-Direct  
  
Input Watts (W): 55.1  
Input Voltage (V): 120  
Input 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: P331433-927

CATALOG NUMBER: S122DIP-S1005D530U927-4F0-1E-UDD-D1

### Luminous Intensity Polar Plot





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CATALOG NUMBER: S122DIP-S1005D530U927-4F0-1E-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	110	110	110	110	103	103	103	103	89	89	89		77	77	77		66	66	66	61
1	98	93	88	84	92	87	83	79	76	72	70		65	63	60		55	54	52	47
2	89	80	73	67	82	75	69	64	65	60	56		56	52	49		48	45	42	38
3	81	70	62	55	75	65	58	52	57	51	46		49	44	41		42	38	35	31
4	73	62	53	46	68	58	50	44	50	44	39		43	38	34		37	33	30	26
5	67	55	46	39	62	51	43	37	45	38	33		39	34	30		33	29	26	23
6	62	49	40	34	57	46	38	32	40	34	29		35	30	26		30	26	22	20
7	57	44	36	30	53	41	34	28	36	30	25		32	26	23		27	23	20	17
8	53	40	32	26	49	38	30	25	33	27	22		29	24	20		25	21	18	15
9	49	37	29	23	46	34	27	22	30	24	20		27	22	18		23	19	16	14
10	46	34	26	21	43	32	25	20	28	22	18		25	20	16		21	17	14	12

**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: P331433-927

CATALOG NUMBER: S122DIP-S1005D530U927-4F0-1E-UDD-D1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.4	1.7
10°-20°	227.6	4.8
20°-30°	344.9	7.3
30°-40°	420.1	8.9
40°-50°	452.0	9.6
50°-60°	438.9	9.3
60°-70°	383.2	8.2
70°-80°	295.0	6.3
80°-90°	200.2	4.3
90°-100°	170.3	3.6
100°-110°	205.0	4.4
110°-120°	245.9	5.2
120°-130°	273.5	5.8
130°-140°	281.2	6.0
140°-150°	263.3	5.6
150°-160°	218.6	4.7
160°-170°	145.0	3.1
170°-180°	50.7	1.1
0°-30°	651.9	13.9
0°-40°	1072.0	22.8
0°-60°	1962.9	41.8
0°-90°	2841.4	60.5
90°-120°	621.2	13.2
90°-150°	1439.2	30.7
90°-180°	1853.0	39.5
0°-180°	4694.8	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	89	176	222	239	9
95°	33	95	168	213	228	35
105°	103	141	204	246	260	109
115°	186	204	255	290	303	183
125°	265	271	307	337	349	237
135°	341	347	359	384	393	264
145°	413	416	419	426	431	258
155°	472	473	475	477	476	217
165°	514	513	513	516	514	145
175°	534	533	532	535	533	51
180°	535	535	535	535	535	



TEST NUMBER: P331433-927

CATALOG NUMBER: S122DIP-S1005D530U927-4F0-1E-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	40.2	56.6	72.9	89.2	106.2	123.9	141.6	159.3	177.1	188.0
90°	12.6	29.5	46.3	63.1	80.0	98.2	117.6	137.1	156.6	176.1	186.6
92.5°	19.2	34.7	50.1	65.6	81.0	97.3	114.5	131.6	148.8	165.9	176.5
95°	33.2	46.9	60.6	74.2	87.9	103.0	119.4	135.8	152.1	168.5	178.8
97.5°	51.4	63.6	75.7	87.9	100.1	114.1	130.0	145.9	161.8	177.8	187.7
100°	65.8	76.7	87.5	98.2	109.0	122.1	137.5	152.9	168.3	183.7	193.7
102.5°	80.1	89.8	99.6	109.3	119.1	131.5	146.6	161.7	176.7	191.8	201.6
105°	103.2	111.3	119.5	127.5	135.7	146.9	161.1	175.3	189.6	203.8	213.4
107.5°	127.7	134.4	141.1	147.8	154.5	164.6	178.0	191.5	204.9	218.3	227.4
110°	142.7	148.6	154.6	160.7	166.6	176.3	189.5	202.6	215.9	229.1	237.7



TEST NUMBER: P331433-927

CATALOG NUMBER: S122DIP-S1005D530U927-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	160.0	165.1	170.2	175.4	180.5	189.3	201.8	214.3	226.8	239.3	247.7
115°	185.5	189.1	192.7	196.2	199.9	207.6	219.5	231.5	243.4	255.3	263.3
117.5°	209.8	212.5	215.3	218.1	220.8	227.5	238.1	248.8	259.5	270.1	277.9
120°	226.8	228.7	230.6	232.4	234.3	240.3	250.3	260.2	270.2	280.2	287.8
122.5°	242.3	243.8	245.1	246.5	248.0	253.4	263.0	272.6	282.2	291.8	298.8
125°	265.3	266.3	267.1	268.1	268.9	273.5	281.9	290.3	298.6	306.9	313.9
127.5°	288.9	289.8	290.7	291.5	292.4	296.1	302.8	309.3	315.9	322.6	328.9
130°	303.7	304.8	305.8	306.8	307.8	311.1	316.6	322.0	327.5	333.0	339.3
132.5°	320.4	321.2	321.9	322.7	323.5	326.1	330.6	334.9	339.4	343.8	349.6
135°	341.4	342.5	343.6	344.7	345.8	347.8	350.7	353.6	356.5	359.4	365.0
137.5°	364.8	365.6	366.5	367.3	368.2	369.3	370.7	372.2	373.7	375.1	380.0
140°	378.9	379.5	380.2	380.8	381.4	382.2	383.3	384.3	385.4	386.4	390.7
142.5°	393.3	394.0	394.6	395.2	395.9	396.4	396.9	397.3	397.8	398.2	401.7
145°	412.9	413.6	414.3	415.0	415.7	416.4	416.9	417.6	418.2	418.7	420.5
147.5°	431.4	432.2	433.1	434.0	434.7	435.4	435.8	436.2	436.6	437.0	437.4
150°	444.1	444.7	445.3	445.8	446.5	446.9	447.3	447.7	448.1	448.6	448.9
152.5°	455.3	455.9	456.5	457.1	457.6	458.2	458.7	459.1	459.6	460.2	460.5
155°	472.1	472.4	472.7	472.9	473.2	473.6	473.9	474.2	474.4	474.8	475.3
157.5°	486.4	486.6	486.8	487.0	487.3	487.4	487.6	487.8	488.0	488.1	488.9
160°	495.1	495.3	495.5	495.7	495.9	496.1	496.1	496.2	496.4	496.5	497.1
162.5°	503.0	503.1	503.1	503.2	503.2	503.3	503.4	503.5	503.6	503.7	504.4
165°	513.7	513.5	513.4	513.3	513.3	513.2	513.2	513.2	513.2	513.2	513.9
167.5°	522.4	522.2	521.9	521.6	521.3	521.1	521.1	521.1	521.0	521.0	521.7
170°	527.2	526.9	526.6	526.2	526.0	525.8	525.7	525.5	525.5	525.4	526.1
172.5°	530.4	530.1	529.8	529.5	529.3	529.0	528.9	528.9	528.7	528.6	529.3
175°	534.4	534.1	533.8	533.5	533.2	533.0	532.7	532.6	532.3	532.1	532.8
177.5°	536.1	535.8	535.5	535.3	535.0	534.9	534.7	534.6	534.4	534.2	534.7
180°	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3



TEST NUMBER: P331433-927

CATALOG NUMBER: S122DIP-S1005D530U927-4F0-1E-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°	198.9	209.9	220.9	228.1	231.6	235.0	238.5	242.0
90°	197.3	207.9	218.4	225.4	228.7	232.0	235.4	238.8
92.5°	187.1	197.7	208.3	215.3	218.6	221.8	225.1	228.3
95°	189.0	199.3	209.5	216.2	219.2	222.3	225.3	228.3
97.5°	197.7	207.7	217.7	224.3	227.4	230.6	233.8	236.9
100°	203.7	213.7	223.7	230.1	233.0	235.8	238.7	241.5
102.5°	211.4	221.3	231.2	237.5	240.3	243.3	246.1	249.0
105°	223.1	232.7	242.3	248.7	251.7	254.6	257.5	260.5
107.5°	236.6	245.7	254.9	260.7	263.2	265.7	268.2	270.8
110°	246.4	255.0	263.6	269.3	272.0	274.6	277.3	280.0





TEST NUMBER: P331433-927

CATALOG NUMBER: S122DIP-S1005D530U927-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	256.1	264.5	272.9	278.5	281.2	283.9	286.7	289.5
115°	271.3	279.3	287.3	292.6	295.3	298.0	300.6	303.3
117.5°	285.7	293.3	301.1	306.3	308.6	311.1	313.5	316.0
120°	295.3	302.9	310.5	315.5	318.2	320.9	323.5	326.2
122.5°	305.9	313.0	320.1	324.8	327.2	329.5	331.8	334.1
125°	320.8	327.9	334.9	339.5	341.8	344.1	346.5	348.8
127.5°	335.2	341.5	347.8	352.0	354.1	356.2	358.2	360.3
130°	345.5	351.8	358.1	362.1	363.8	365.6	367.3	369.2
132.5°	355.5	361.2	367.0	370.9	372.7	374.5	376.4	378.3
135°	370.5	376.0	381.7	385.4	387.2	389.0	390.9	392.8
137.5°	384.8	389.8	394.7	397.8	399.3	400.7	402.1	403.5
140°	395.1	399.3	403.7	406.5	407.7	408.8	410.1	411.3
142.5°	405.3	408.8	412.3	414.6	415.6	416.6	417.6	418.6
145°	422.2	423.9	425.6	427.0	427.9	428.9	429.8	430.8
147.5°	437.9	438.3	438.8	439.1	439.3	439.7	439.9	440.1
150°	449.2	449.5	449.8	449.8	449.5	449.2	448.9	448.6
152.5°	460.9	461.3	461.7	461.7	461.3	460.9	460.5	460.2
155°	475.8	476.3	476.8	476.9	476.6	476.3	475.9	475.7
157.5°	489.5	490.2	490.9	491.0	490.5	490.0	489.6	489.0
160°	497.6	498.3	498.8	499.0	498.6	498.2	497.7	497.3
162.5°	505.0	505.7	506.4	506.5	506.0	505.6	505.1	504.6
165°	514.6	515.3	515.9	516.1	515.6	515.1	514.6	514.0
167.5°	522.4	523.2	523.9	523.9	523.4	522.9	522.4	521.8
170°	526.8	527.5	528.1	528.2	527.6	527.0	526.4	525.9
172.5°	530.0	530.8	531.4	531.5	530.9	530.3	529.7	529.1
175°	533.5	534.2	535.0	535.0	534.4	533.8	533.2	532.6
177.5°	535.2	535.7	536.1	536.1	535.7	535.2	534.7	534.2
180°	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3

(END OF REPORT)