

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: P331451-940

Luminaire Tested: **S122DIP-S1005D925U940-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P331451-940  
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-S1005D925U940-4F0-1E-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**

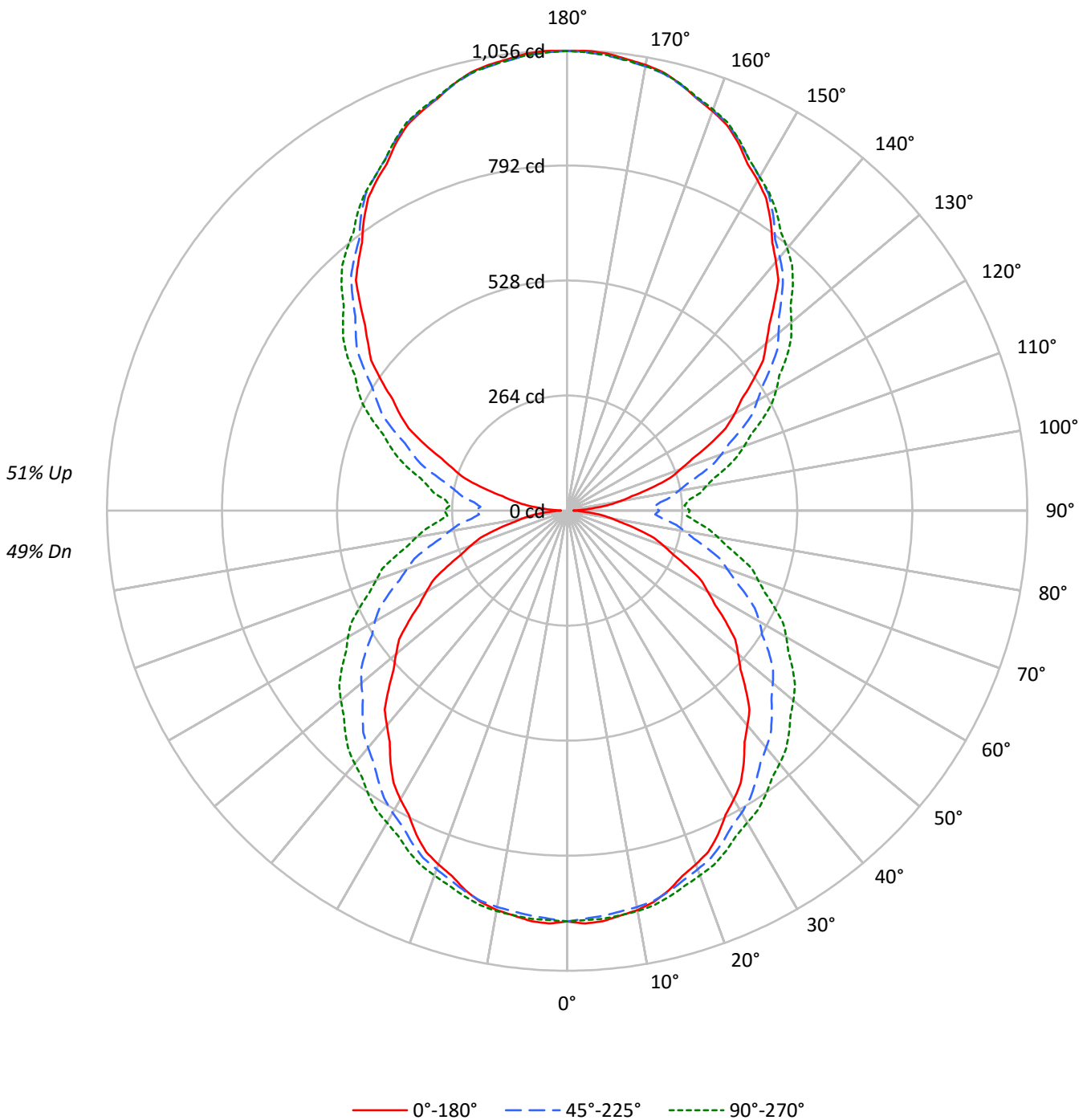
Lumens per Lamp: N/A  
Luminaire Lumens: 6550.2 lumens  
Efficiency: N/A  
Efficacy: 98.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')  
CIE Type: General Diffuse  
  
Input Watts (W): 66.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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



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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°	15224	15224	15224
5°	15300	14656	14600
10°	15203	14222	14063
15°	14994	13763	13496
20°	14728	13272	12952
25°	14466	12799	12457
30°	14098	12312	11962
35°	13725	11842	11611
40°	13332	11442	11262
45°	12960	11082	10962
50°	12561	10760	10668
55°	12143	10411	10368
60°	11628	10049	10051
65°	11095	9625	9675
70°	10498	9170	9268
75°	9730	8725	8894
80°	8523	8267	8514
85°	7361	7873	8218



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.3	1.4
10°-20°	256.2	3.9
20°-30°	388.3	5.9
30°-40°	472.9	7.2
40°-50°	508.8	7.8
50°-60°	494.1	7.5
60°-70°	431.4	6.6
70°-80°	332.1	5.1
80°-90°	227.1	3.5
90°-100°	220.4	3.4
100°-110°	319.7	4.9
110°-120°	428.8	6.5
120°-130°	507.8	7.8
130°-140°	540.9	8.3
140°-150°	516.4	7.9
150°-160°	430.6	6.6
160°-170°	285.6	4.4
170°-180°	99.8	1.5
0°-30°	733.8	11.2
0°-40°	1206.7	18.4
0°-60°	2209.5	33.7
0°-90°	3200.1	48.9
90°-120°	968.8	14.8
90°-150°	2534.0	38.7
90°-180°	3350.0	51.1
0°-180°	6550.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	943	943	943	943	943	
5°	946	941	933	941	940	90
15°	902	904	905	916	916	254
25°	820	830	842	858	862	377
35°	706	730	756	785	795	441
45°	579	617	664	705	720	447
55°	444	495	564	612	631	397
65°	303	371	451	505	525	301
75°	168	245	332	389	409	178
85°	49	134	221	277	298	53
90°	14	105	212	262	282	12
95°	57	131	214	264	281	62
105°	198	242	313	361	378	210
115°	361	384	442	480	494	357
125°	521	530	570	603	615	466
135°	672	682	697	723	733	519
145°	813	820	825	834	837	508
155°	930	933	935	939	937	428
165°	1012	1011	1011	1017	1013	285
175°	1053	1050	1048	1054	1049	100
180°	1054	1054	1054	1054	1054	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	942.9	942.9	942.9	942.9	942.9	942.9	942.9	942.9	942.9	942.9	942.9
2.5°	948.4	947.7	946.9	946.2	945.5	944.2	942.5	940.8	939.1	937.5	938.7
5°	945.7	944.8	943.9	942.9	942.0	940.7	938.9	937.0	935.2	933.4	935.2
7.5°	937.2	936.6	935.9	935.4	934.8	933.8	932.4	930.9	929.6	928.2	930.3
10°	930.7	930.1	929.4	928.8	928.2	927.5	926.6	925.6	924.7	923.8	926.2
12.5°	919.7	919.8	920.0	920.1	920.2	919.9	919.3	918.6	917.9	917.2	919.7
15°	902.0	902.6	903.1	903.7	904.4	904.6	904.6	904.6	904.6	904.6	907.4
17.5°	879.0	880.3	881.5	882.8	884.0	885.2	886.2	887.2	888.1	889.1	892.0
20°	863.7	865.2	866.7	868.3	869.8	871.1	872.4	873.5	874.8	876.0	879.3
22.5°	847.3	849.0	850.8	852.6	854.3	856.0	857.7	859.4	861.1	862.8	866.2
25°	819.9	822.1	824.2	826.3	828.5	830.9	833.6	836.3	839.1	841.8	845.4
27.5°	787.1	790.6	794.1	797.5	801.0	804.3	807.5	810.7	814.0	817.3	821.8
30°	765.3	769.2	773.2	777.1	781.0	785.1	789.0	792.9	796.8	800.8	805.7
32.5°	741.2	745.6	750.1	754.6	758.9	763.5	768.2	772.8	777.6	782.2	787.8
35°	706.5	711.7	716.8	722.0	727.2	732.6	738.4	744.1	749.9	755.7	762.4
37.5°	668.8	674.8	680.7	686.6	692.6	699.3	706.8	714.3	721.8	729.2	736.6
40°	643.6	650.3	657.0	663.7	670.4	677.8	686.0	694.2	702.4	710.6	718.5
42.5°	619.6	626.2	632.9	639.6	646.3	654.3	663.8	673.2	682.6	692.1	700.6
45°	579.4	587.6	595.8	604.0	612.2	621.6	632.3	642.9	653.5	664.1	673.6
47.5°	539.8	548.8	557.7	566.6	575.5	586.2	598.7	611.1	623.6	636.0	645.9
50°	512.5	521.9	531.3	540.7	550.1	561.7	575.3	589.0	602.6	616.4	626.7
52.5°	486.2	496.1	506.0	515.9	525.8	538.0	552.3	566.8	581.1	595.6	606.1
55°	444.2	455.0	466.0	477.0	487.9	501.2	517.0	532.8	548.6	564.4	575.3
57.5°	402.6	414.9	427.2	439.6	451.9	466.1	482.2	498.3	514.4	530.5	542.2
60°	373.1	386.1	399.2	412.2	425.3	440.5	457.8	475.1	492.4	509.7	521.3
62.5°	346.9	360.3	373.9	387.4	401.0	416.4	433.7	451.0	468.4	485.7	497.9
65°	303.4	318.3	333.1	348.0	362.9	379.3	397.3	415.1	433.0	450.9	463.4
67.5°	263.5	279.0	294.5	310.1	325.7	342.6	361.0	379.3	397.6	416.0	428.6
70°	235.1	250.8	266.6	282.4	298.2	315.5	334.4	353.2	372.0	390.8	403.9
72.5°	208.8	225.1	241.4	257.6	273.9	291.6	310.7	329.8	348.8	367.9	380.7
75°	168.1	185.1	202.1	219.1	236.1	254.3	273.8	293.2	312.6	332.1	345.1
77.5°	128.8	146.5	164.3	182.1	199.9	218.6	238.4	258.2	277.9	297.7	310.7
80°	102.5	121.0	139.6	158.1	176.6	195.7	215.4	235.2	254.9	274.6	287.4
82.5°	80.6	98.9	117.2	135.5	153.7	172.9	192.9	212.9	232.8	252.8	265.6
85°	49.2	68.0	86.9	105.7	124.5	143.7	163.1	182.5	202.0	221.4	234.2
87.5°	26.9	45.6	64.1	82.7	101.3	120.7	141.0	161.3	181.6	201.9	214.3
90°	14.5	34.5	54.6	74.5	94.5	116.4	140.2	164.0	187.7	211.5	223.3
92.5°	28.4	46.5	64.6	82.8	100.9	119.9	139.6	159.3	179.1	198.9	210.8
95°	57.2	73.5	89.7	105.9	122.3	139.6	158.3	176.9	195.5	214.1	225.7
97.5°	94.1	108.5	123.0	137.4	151.9	168.2	186.5	204.6	222.9	241.1	252.4
100°	122.6	135.4	148.2	161.0	173.9	189.0	206.7	224.3	241.8	259.5	270.7
102.5°	151.4	162.9	174.4	186.0	197.5	211.9	229.2	246.5	263.8	281.0	292.1
105°	198.1	207.6	217.0	226.3	235.8	248.5	264.7	280.9	297.1	313.3	324.3
107.5°	246.6	254.6	262.5	270.4	278.3	289.8	305.0	320.0	335.2	350.4	360.7
110°	276.9	284.1	291.4	298.6	305.9	317.0	331.9	346.8	361.7	376.5	386.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	311.0	317.4	323.6	329.9	336.2	346.3	360.3	374.3	388.3	402.3	411.5
115°	361.4	366.0	370.5	375.0	379.5	388.4	401.7	415.0	428.2	441.5	450.4
117.5°	410.3	414.0	417.8	421.5	425.3	432.9	444.5	456.0	467.5	479.0	487.6
120°	443.7	446.5	449.3	452.1	454.9	461.5	472.2	482.7	493.3	503.8	512.4
122.5°	474.3	476.7	479.1	481.4	483.8	490.2	500.5	510.9	521.1	531.5	539.2
125°	520.7	522.5	524.2	526.0	527.8	533.2	542.3	551.4	560.6	569.7	577.3
127.5°	567.1	569.1	571.0	572.9	574.9	579.4	586.6	593.7	600.8	608.0	614.7
130°	596.3	598.5	600.8	603.1	605.4	609.5	615.5	621.4	627.4	633.4	640.3
132.5°	629.0	630.8	632.6	634.5	636.2	639.6	644.6	649.6	654.6	659.6	665.8
135°	671.5	673.6	675.8	678.0	680.1	683.0	686.3	689.8	693.2	696.7	702.8
137.5°	717.6	719.3	720.9	722.7	724.4	726.2	728.1	729.9	731.7	733.6	739.0
140°	745.3	746.8	748.2	749.8	751.2	752.8	754.4	755.9	757.5	759.1	764.0
142.5°	773.8	775.3	776.8	778.2	779.7	780.8	781.6	782.4	783.2	784.0	788.0
145°	813.3	814.8	816.1	817.5	818.9	820.2	821.4	822.5	823.8	824.9	827.0
147.5°	849.8	851.5	853.2	854.8	856.5	857.7	858.5	859.3	860.1	860.9	861.6
150°	874.8	875.9	877.1	878.3	879.5	880.5	881.3	882.1	882.9	883.7	884.2
152.5°	896.8	898.0	899.2	900.4	901.6	902.7	903.6	904.6	905.4	906.4	907.2
155°	930.0	930.5	931.1	931.7	932.3	932.9	933.5	934.1	934.7	935.2	936.3
157.5°	958.2	958.6	959.0	959.4	959.8	960.2	960.6	960.9	961.3	961.6	963.0
160°	975.4	975.7	976.1	976.5	976.9	977.2	977.4	977.6	977.8	977.9	979.2
162.5°	991.0	991.0	991.1	991.2	991.3	991.4	991.7	991.8	992.0	992.2	993.5
165°	1011.8	1011.6	1011.4	1011.2	1011.0	1010.9	1010.9	1010.9	1010.9	1010.9	1012.3
167.5°	1029.2	1028.7	1028.1	1027.4	1026.9	1026.5	1026.5	1026.4	1026.4	1026.4	1027.8
170°	1038.5	1037.9	1037.3	1036.7	1036.1	1035.7	1035.5	1035.4	1035.1	1034.9	1036.3
172.5°	1044.9	1044.3	1043.7	1043.1	1042.5	1042.1	1042.0	1041.7	1041.5	1041.3	1042.8
175°	1052.8	1052.1	1051.5	1051.0	1050.3	1049.9	1049.5	1049.1	1048.7	1048.3	1049.6
177.5°	1056.0	1055.4	1055.0	1054.5	1054.0	1053.6	1053.3	1053.0	1052.7	1052.4	1053.3
180°	1054.5	1054.5	1054.5	1054.5	1054.5	1054.5	1054.5	1054.5	1054.5	1054.5	1054.5



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	942.9	942.9	942.9	942.9	942.9	942.9	942.9	942.9
2.5°	939.9	941.1	942.4	942.7	942.2	941.7	941.2	940.8
5°	937.0	938.9	940.7	941.4	941.1	940.8	940.5	940.2
7.5°	932.6	934.8	936.9	937.9	937.5	937.3	936.9	936.7
10°	928.6	931.1	933.5	934.6	934.2	934.0	933.7	933.4
12.5°	922.1	924.5	926.9	928.0	927.7	927.4	927.1	926.8
15°	910.2	912.8	915.6	916.9	916.5	916.2	915.9	915.6
17.5°	894.8	897.7	900.5	902.0	902.0	902.0	902.0	902.0
20°	882.6	886.0	889.3	891.0	891.0	891.0	891.0	891.0
22.5°	869.5	872.9	876.2	878.2	878.6	879.1	879.6	880.1
25°	849.1	852.7	856.4	858.6	859.6	860.5	861.4	862.3
27.5°	826.4	831.1	835.7	838.3	839.0	839.6	840.3	841.0
30°	810.6	815.4	820.3	823.1	824.0	824.9	825.9	826.8
32.5°	793.4	799.0	804.6	808.2	809.9	811.5	813.2	814.8
35°	769.1	775.8	782.5	786.8	789.0	791.1	793.3	795.3
37.5°	744.0	751.4	758.8	763.7	765.9	768.2	770.4	772.7
40°	726.4	734.3	742.2	747.5	750.3	753.0	755.7	758.5
42.5°	709.3	717.9	726.6	732.2	734.9	737.7	740.4	743.2
45°	683.0	692.4	701.8	708.0	711.1	714.1	717.1	720.1
47.5°	655.7	665.5	675.4	682.0	685.3	688.7	692.0	695.4
50°	636.9	647.3	657.6	664.5	667.8	671.1	674.5	677.8
52.5°	616.7	627.2	637.8	644.9	648.5	652.1	655.7	659.2
55°	586.3	597.2	608.1	615.5	619.5	623.5	627.4	631.3
57.5°	554.1	565.9	577.7	585.5	589.5	593.5	597.5	601.5
60°	532.8	544.4	555.9	563.8	568.0	572.3	576.6	580.8
62.5°	510.2	522.5	534.8	542.9	546.9	550.9	554.9	558.9
65°	475.9	488.3	500.8	509.0	512.9	516.8	520.8	524.8
67.5°	441.1	453.7	466.3	474.7	478.8	482.9	487.1	491.2
70°	417.0	430.0	443.1	451.4	455.0	458.7	462.4	466.0
72.5°	393.5	406.4	419.1	427.8	432.1	436.5	440.9	445.2
75°	358.2	371.2	384.3	392.8	396.7	400.7	404.7	408.6
77.5°	323.6	336.6	349.6	358.3	362.5	366.8	371.0	375.2
80°	300.1	313.0	325.7	334.2	338.5	342.7	347.0	351.2
82.5°	278.3	291.1	303.8	312.2	316.2	320.2	324.2	328.2
85°	246.9	259.7	272.4	280.9	285.2	289.4	293.6	297.9
87.5°	226.6	238.9	251.2	259.3	263.2	267.2	271.1	275.0
90°	235.1	246.8	258.5	266.4	270.2	274.0	277.9	281.7
92.5°	222.8	234.8	246.8	254.6	258.3	262.0	265.6	269.4
95°	237.2	248.7	260.3	267.7	270.9	274.2	277.4	280.6
97.5°	263.6	274.8	286.1	293.5	297.0	300.6	304.2	307.6
100°	282.0	293.2	304.4	311.6	314.8	317.9	321.0	324.1
102.5°	303.3	314.4	325.6	332.8	335.9	339.0	342.1	345.4
105°	335.4	346.3	357.4	364.6	367.9	371.2	374.6	377.9
107.5°	371.0	381.4	391.8	398.1	400.6	403.1	405.5	407.9
110°	395.9	405.6	415.4	421.6	424.4	427.1	429.9	432.6





TEST NUMBER: P331451-940

CATALOG NUMBER: S122DIP-S1005D925U940-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	420.8	430.1	439.3	445.4	448.3	451.2	454.1	457.0
115°	459.3	468.2	477.2	483.0	485.7	488.5	491.2	494.0
117.5°	496.1	504.6	513.1	518.6	521.1	523.6	526.1	528.7
120°	520.8	529.3	537.9	543.5	546.2	548.9	551.7	554.5
122.5°	547.0	554.8	562.6	567.7	570.1	572.6	575.0	577.4
125°	585.0	592.5	600.1	605.2	607.8	610.3	612.8	615.4
127.5°	621.6	628.4	635.2	639.6	641.7	643.7	645.8	647.8
130°	647.2	654.1	660.9	665.2	666.9	668.5	670.1	671.8
132.5°	671.9	678.1	684.3	688.3	690.1	691.9	693.7	695.4
135°	709.0	715.2	721.4	725.4	727.3	729.1	730.9	732.7
137.5°	744.5	749.9	755.4	758.7	759.9	761.3	762.5	763.8
140°	768.8	773.7	778.6	781.5	782.6	783.5	784.6	785.6
142.5°	792.1	796.1	800.2	802.6	803.4	804.1	804.9	805.7
145°	828.9	831.0	833.0	834.4	835.1	835.8	836.6	837.3
147.5°	862.2	862.9	863.6	863.9	863.9	863.9	863.9	863.8
150°	884.8	885.5	886.0	886.0	885.5	884.8	884.2	883.7
152.5°	907.9	908.7	909.5	909.5	908.7	907.9	907.2	906.4
155°	937.3	938.3	939.2	939.4	938.8	938.3	937.6	937.0
157.5°	964.3	965.6	967.0	967.1	966.3	965.3	964.3	963.4
160°	980.3	981.5	982.8	982.9	982.1	981.3	980.5	979.7
162.5°	994.9	996.2	997.6	997.8	996.8	995.9	995.0	994.0
165°	1013.7	1015.0	1016.5	1016.6	1015.7	1014.7	1013.7	1012.7
167.5°	1029.1	1030.6	1031.9	1032.1	1031.1	1030.0	1029.0	1028.0
170°	1037.7	1039.1	1040.4	1040.5	1039.4	1038.2	1037.0	1035.8
172.5°	1044.1	1045.5	1046.9	1047.0	1045.8	1044.6	1043.4	1042.2
175°	1051.1	1052.4	1053.8	1053.9	1052.8	1051.5	1050.3	1049.2
177.5°	1054.3	1055.3	1056.1	1056.1	1055.3	1054.3	1053.3	1052.4
180°	1054.5	1054.5	1054.5	1054.5	1054.5	1054.5	1054.5	1054.5

(END OF REPORT)