

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: P331442

Luminaire Tested: **S122DIP-S1005D725U835-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P331442  
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-S1005D725U835-4F0-1E-UDD-D1  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1005 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 725 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6627.9 lumens  
Efficiency: N/A  
Efficacy: 109.2 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: General Diffuse

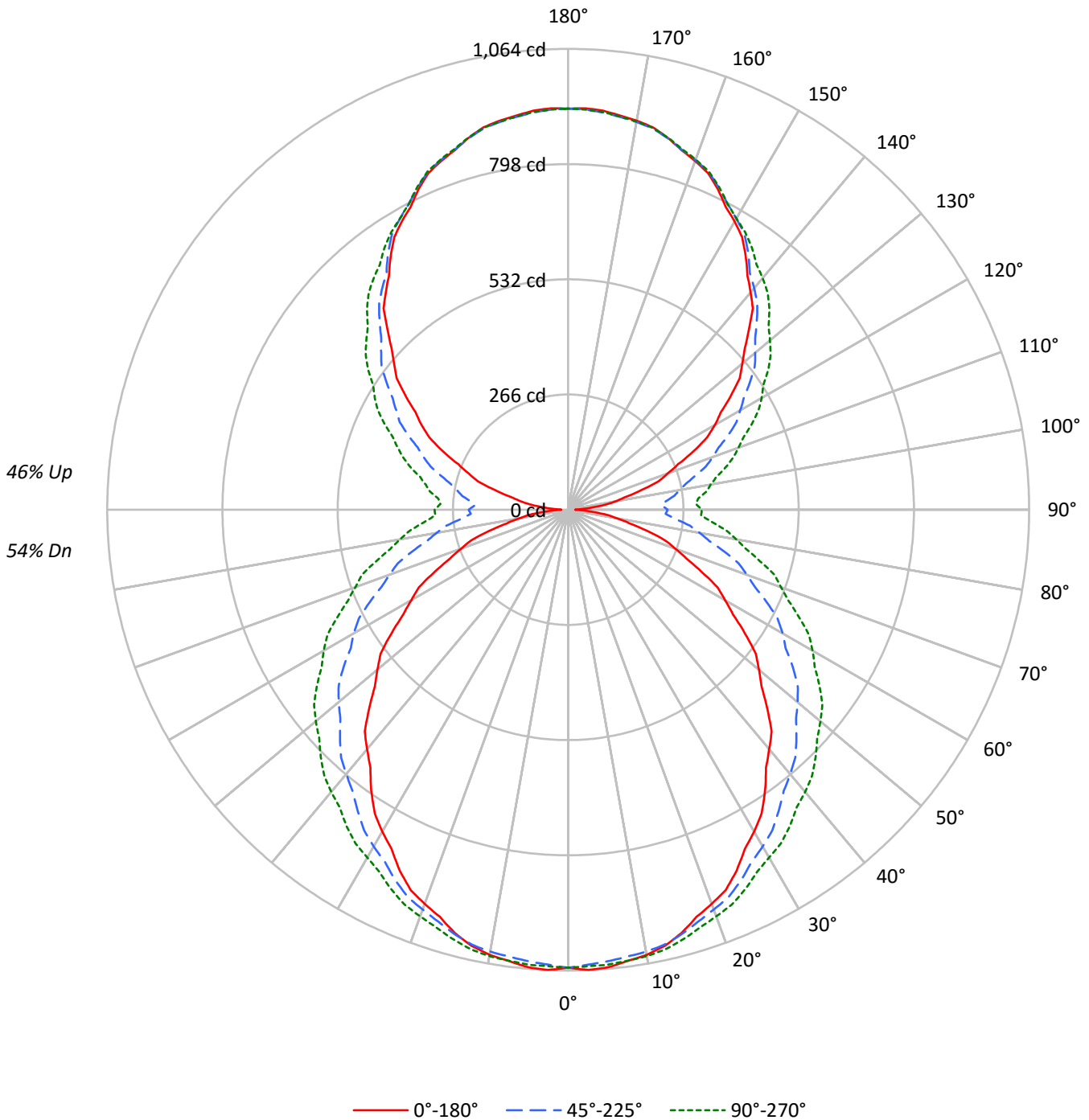
Input Watts (W): 60.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	108	108	108	100	100	100	100	86	86	86	72	72	72	60	60	60	54
1	97	92	87	83	90	85	81	78	73	70	67	61	59	57	50	49	47	42
2	88	79	73	67	81	74	68	62	63	58	54	53	49	46	43	41	39	34
3	80	69	61	55	73	64	57	51	55	49	45	46	42	38	38	35	32	28
4	73	61	52	46	67	57	49	43	48	42	38	41	36	32	34	30	27	24
5	67	54	45	39	61	50	43	37	43	37	32	36	32	28	30	26	23	20
6	61	48	40	34	56	45	37	32	39	33	28	33	28	24	27	23	20	18
7	57	44	35	29	52	41	33	28	35	29	24	30	25	21	25	21	18	15
8	52	40	31	26	48	37	30	24	32	26	22	27	22	19	23	19	16	14
9	49	36	28	23	45	34	27	22	29	23	19	25	20	17	21	17	14	12
10	46	33	26	21	42	31	24	19	27	21	17	23	18	15	19	16	13	11

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

	0°	45°	90°
0°	17073	17073	17073
5°	17157	16435	16373
10°	17049	15949	15770
15°	16814	15435	15136
20°	16517	14884	14525
25°	16223	14353	13970
30°	15810	13808	13414
35°	15392	13280	13021
40°	14952	12831	12629
45°	14535	12429	12294
50°	14086	12066	11964
55°	13616	11675	11627
60°	13040	11269	11271
65°	12441	10795	10850
70°	11770	10285	10393
75°	10911	9784	9973
80°	9555	9272	9549
85°	8259	8830	9217



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.2	1.5
10°-20°	287.3	4.3
20°-30°	435.4	6.6
30°-40°	530.3	8.0
40°-50°	570.5	8.6
50°-60°	554.1	8.4
60°-70°	483.8	7.3
70°-80°	372.4	5.6
80°-90°	253.7	3.8
90°-100°	230.9	3.5
100°-110°	308.0	4.6
110°-120°	394.6	6.0
120°-130°	456.1	6.9
130°-140°	479.3	7.2
140°-150°	454.3	6.9
150°-160°	378.2	5.7
160°-170°	250.9	3.8
170°-180°	87.7	1.3
0°-30°	822.9	12.4
0°-40°	1353.3	20.4
0°-60°	2477.9	37.4
0°-90°	3587.8	54.1
90°-120°	933.6	14.1
90°-150°	2323.4	35.1
90°-180°	3040.0	45.9
0°-180°	6627.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1057	1057	1057	1057	1057	
5°	1060	1056	1047	1055	1054	101
15°	1012	1014	1014	1028	1027	285
25°	920	930	944	962	967	423
35°	792	819	848	880	892	495
45°	650	692	745	790	808	501
55°	498	555	633	686	708	445
65°	340	416	506	566	588	338
75°	188	275	372	436	458	199
85°	55	150	248	310	334	59
90°	16	115	230	287	309	12
95°	53	134	226	282	301	56
105°	176	224	304	357	376	186
115°	319	343	408	451	467	315
125°	458	467	512	549	564	410
135°	590	599	616	646	657	456
145°	714	720	725	734	739	447
155°	817	819	822	825	823	376
165°	889	888	888	893	890	251
175°	925	922	921	926	922	88
180°	926	926	926	926	926	



TEST NUMBER: P331442

CATALOG NUMBER: S122DIP-S1005D725U835-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1057.4	1057.4	1057.4	1057.4	1057.4	1057.4	1057.4	1057.4	1057.4	1057.4	1057.4
2.5°	1063.6	1062.8	1061.9	1061.1	1060.3	1058.9	1057.0	1055.1	1053.2	1051.3	1052.7
5°	1060.5	1059.5	1058.5	1057.4	1056.4	1054.9	1052.9	1050.8	1048.8	1046.7	1048.8
7.5°	1051.0	1050.3	1049.6	1049.0	1048.3	1047.2	1045.6	1044.0	1042.5	1040.9	1043.3
10°	1043.7	1043.0	1042.3	1041.6	1040.9	1040.1	1039.1	1038.0	1037.0	1036.0	1038.7
12.5°	1031.4	1031.5	1031.7	1031.8	1031.9	1031.6	1030.9	1030.1	1029.4	1028.6	1031.4
15°	1011.5	1012.2	1012.8	1013.5	1014.2	1014.5	1014.5	1014.5	1014.5	1014.5	1017.6
17.5°	985.7	987.2	988.6	990.0	991.4	992.7	993.8	994.9	996.0	997.1	1000.3
20°	968.6	970.3	972.0	973.7	975.4	976.9	978.3	979.6	981.0	982.4	986.1
22.5°	950.2	952.1	954.1	956.1	958.1	960.0	961.9	963.8	965.7	967.6	971.4
25°	919.5	921.9	924.3	926.7	929.1	931.8	934.8	937.9	941.0	944.0	948.1
27.5°	882.7	886.6	890.5	894.4	898.3	902.0	905.6	909.2	912.8	916.5	921.6
30°	858.2	862.6	867.1	871.5	875.9	880.4	884.8	889.2	893.6	898.1	903.5
32.5°	831.2	836.2	841.2	846.2	851.1	856.2	861.5	866.7	872.0	877.2	883.5
35°	792.3	798.1	803.9	809.7	815.5	821.6	828.1	834.5	841.0	847.5	855.0
37.5°	750.0	756.7	763.4	770.0	776.7	784.2	792.6	801.0	809.4	817.8	826.1
40°	721.8	729.3	736.8	744.3	751.8	760.1	769.3	778.5	787.7	796.9	805.8
42.5°	694.9	702.3	709.8	717.3	724.8	733.8	744.4	755.0	765.5	776.1	785.7
45°	649.8	659.0	668.2	677.4	686.6	697.1	709.1	721.0	732.9	744.8	755.4
47.5°	605.4	615.4	625.4	635.4	645.4	657.4	671.4	685.3	699.3	713.2	724.3
50°	574.7	585.3	595.8	606.4	616.9	629.9	645.2	660.5	675.8	691.2	702.8
52.5°	545.3	556.4	567.5	578.6	589.7	603.3	619.4	635.6	651.7	667.9	679.7
55°	498.1	510.3	522.6	534.9	547.1	562.1	579.8	597.5	615.2	632.9	645.2
57.5°	451.5	465.3	479.1	493.0	506.8	522.7	540.8	558.8	576.9	594.9	608.1
60°	418.4	433.0	447.7	462.3	477.0	494.0	513.4	532.8	552.2	571.6	584.6
62.5°	389.0	404.1	419.3	434.5	449.7	467.0	486.4	505.8	525.3	544.7	558.4
65°	340.2	356.9	373.6	390.3	407.0	425.4	445.5	465.5	485.6	505.7	519.7
67.5°	295.5	312.9	330.3	347.8	365.2	384.2	404.8	425.4	445.9	466.5	480.6
70°	263.6	281.3	299.0	316.7	334.4	353.8	375.0	396.1	417.2	438.3	452.9
72.5°	234.2	252.4	270.7	288.9	307.2	327.0	348.4	369.8	391.2	412.6	426.9
75°	188.5	207.6	226.6	245.7	264.8	285.2	307.0	328.8	350.6	372.4	387.0
77.5°	144.4	164.3	184.3	204.2	224.2	245.2	267.4	289.5	311.6	333.8	348.4
80°	114.9	135.7	156.5	177.3	198.0	219.5	241.6	263.8	285.9	308.0	322.3
82.5°	90.4	110.9	131.4	151.9	172.4	193.9	216.3	238.7	261.1	283.5	297.8
85°	55.2	76.3	97.4	118.5	139.6	161.1	182.9	204.7	226.5	248.3	262.6
87.5°	30.2	50.9	71.6	92.3	113.1	134.7	157.2	179.8	202.4	224.9	238.8
90°	16.1	37.9	59.8	81.6	103.5	127.2	152.8	178.4	204.0	229.7	242.9
92.5°	28.0	47.9	67.9	87.8	107.7	128.6	150.5	172.4	194.2	216.1	229.5
95°	52.9	70.6	88.4	106.1	123.9	143.1	163.9	184.7	205.5	226.3	239.2
97.5°	85.0	100.7	116.5	132.3	148.0	166.1	186.3	206.6	226.9	247.2	259.8
100°	110.0	124.0	138.0	152.0	166.0	182.7	202.3	221.9	241.5	261.1	273.7
102.5°	135.0	147.7	160.3	172.9	185.5	201.4	220.6	239.8	259.0	278.2	290.6
105°	175.7	186.1	196.5	206.9	217.3	231.5	249.6	267.6	285.7	303.8	316.0
107.5°	218.2	226.9	235.6	244.2	252.9	265.7	282.7	299.6	316.6	333.6	345.1
110°	244.5	252.4	260.2	268.1	275.9	288.2	304.9	321.6	338.3	355.0	365.9



TEST NUMBER: P331442

CATALOG NUMBER: S122DIP-S1005D725U835-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	274.5	281.3	288.1	294.8	301.6	312.8	328.6	344.3	360.0	375.8	386.3
115°	318.8	323.6	328.4	333.2	337.9	347.8	362.8	377.8	392.8	407.7	417.8
117.5°	361.3	365.2	369.0	372.9	376.7	385.2	398.4	411.6	424.8	438.0	447.7
120°	390.7	393.5	396.2	399.0	401.7	409.2	421.5	433.7	445.9	458.2	467.7
122.5°	417.6	419.8	422.0	424.3	426.5	433.5	445.3	457.2	469.0	480.8	489.7
125°	458.0	459.5	461.1	462.7	464.2	470.2	480.6	491.0	501.3	511.7	520.4
127.5°	498.8	500.4	502.1	503.7	505.3	510.2	518.4	526.6	534.7	542.9	550.7
130°	524.4	526.3	528.3	530.2	532.1	536.5	543.3	550.1	556.9	563.7	571.5
132.5°	553.2	554.7	556.2	557.7	559.2	562.7	568.3	573.9	579.5	585.1	592.2
135°	590.1	592.0	593.9	595.8	597.8	600.6	604.3	608.1	611.8	615.6	622.6
137.5°	630.6	632.1	633.6	635.1	636.6	638.3	640.3	642.2	644.2	646.1	652.2
140°	655.0	656.2	657.4	658.7	659.9	661.3	662.8	664.4	665.9	667.5	672.9
142.5°	680.0	681.2	682.4	683.7	684.9	685.9	686.6	687.3	688.0	688.8	693.3
145°	714.4	715.6	716.9	718.1	719.3	720.4	721.5	722.5	723.5	724.6	726.8
147.5°	746.5	747.9	749.4	750.8	752.3	753.4	754.1	754.8	755.5	756.2	756.8
150°	768.4	769.4	770.4	771.5	772.5	773.4	774.1	774.8	775.5	776.2	776.7
152.5°	787.7	788.8	789.8	790.9	791.9	792.8	793.7	794.5	795.3	796.2	796.8
155°	816.8	817.3	817.9	818.4	818.9	819.4	819.9	820.5	821.0	821.5	822.4
157.5°	841.7	842.0	842.4	842.7	843.1	843.4	843.7	844.0	844.3	844.6	845.8
160°	856.7	857.0	857.4	857.7	858.1	858.3	858.5	858.7	858.9	859.0	860.1
162.5°	870.4	870.5	870.6	870.6	870.7	870.8	871.0	871.2	871.4	871.5	872.7
165°	888.7	888.6	888.4	888.2	888.0	887.9	887.9	887.9	887.9	887.9	889.2
167.5°	904.0	903.5	903.0	902.5	902.0	901.7	901.7	901.6	901.6	901.5	902.8
170°	912.2	911.7	911.1	910.6	910.1	909.7	909.6	909.4	909.2	909.0	910.3
172.5°	917.8	917.3	916.8	916.2	915.7	915.4	915.2	915.0	914.9	914.7	915.9
175°	924.7	924.2	923.6	923.1	922.6	922.2	921.8	921.5	921.1	920.8	922.0
177.5°	927.5	927.1	926.7	926.2	925.8	925.5	925.2	924.9	924.6	924.4	925.2
180°	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2



TEST NUMBER: P331442

CATALOG NUMBER: S122DIP-S1005D725U835-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1057.4	1057.4	1057.4	1057.4	1057.4	1057.4	1057.4	1057.4
2.5°	1054.0	1055.4	1056.8	1057.2	1056.6	1056.1	1055.5	1055.0
5°	1050.8	1052.9	1054.9	1055.7	1055.4	1055.1	1054.7	1054.4
7.5°	1045.8	1048.3	1050.7	1051.8	1051.4	1051.1	1050.7	1050.4
10°	1041.4	1044.2	1046.9	1048.1	1047.7	1047.4	1047.1	1046.7
12.5°	1034.1	1036.8	1039.5	1040.7	1040.4	1040.0	1039.7	1039.4
15°	1020.7	1023.7	1026.8	1028.2	1027.8	1027.5	1027.1	1026.8
17.5°	1003.5	1006.7	1009.9	1011.5	1011.5	1011.5	1011.5	1011.5
20°	989.8	993.6	997.3	999.2	999.2	999.2	999.2	999.2
22.5°	975.1	978.9	982.6	984.8	985.3	985.9	986.4	987.0
25°	952.2	956.3	960.4	962.9	964.0	965.0	966.0	967.0
27.5°	926.8	932.0	937.2	940.1	940.9	941.6	942.4	943.1
30°	909.0	914.4	919.9	923.1	924.1	925.1	926.2	927.2
32.5°	889.8	896.0	902.3	906.3	908.2	910.0	911.9	913.7
35°	862.5	870.0	877.5	882.4	884.8	887.2	889.6	891.9
37.5°	834.4	842.7	851.0	856.4	858.9	861.5	864.0	866.5
40°	814.6	823.5	832.3	838.3	841.4	844.4	847.5	850.6
42.5°	795.4	805.1	814.8	821.1	824.2	827.3	830.3	833.4
45°	765.9	776.5	787.0	794.0	797.4	800.8	804.2	807.6
47.5°	735.3	746.3	757.4	764.8	768.5	772.3	776.0	779.8
50°	714.3	725.9	737.5	745.2	748.9	752.6	756.4	760.1
52.5°	691.6	703.4	715.3	723.2	727.2	731.3	735.3	739.3
55°	657.5	669.7	682.0	690.3	694.7	699.2	703.6	708.0
57.5°	621.4	634.6	647.8	656.6	661.1	665.6	670.1	674.6
60°	597.5	610.5	623.4	632.3	637.0	641.8	646.6	651.3
62.5°	572.2	585.9	599.7	608.8	613.3	617.8	622.3	626.8
65°	533.7	547.6	561.6	570.8	575.2	579.6	584.1	588.5
67.5°	494.7	508.8	522.9	532.3	536.9	541.5	546.2	550.8
70°	467.6	482.2	496.9	506.2	510.3	514.4	518.5	522.6
72.5°	441.3	455.7	470.0	479.7	484.6	489.5	494.4	499.3
75°	401.7	416.3	431.0	440.5	444.9	449.4	453.8	458.2
77.5°	362.9	377.5	392.1	401.8	406.5	411.3	416.1	420.8
80°	336.6	351.0	365.3	374.8	379.6	384.3	389.1	393.9
82.5°	312.1	326.4	340.7	350.1	354.6	359.1	363.6	368.1
85°	276.9	291.2	305.5	315.0	319.8	324.6	329.3	334.1
87.5°	252.6	266.4	280.2	289.3	293.7	298.1	302.5	306.9
90°	256.2	269.5	282.8	291.5	295.8	300.0	304.3	308.6
92.5°	243.0	256.4	269.8	278.6	282.7	286.8	290.9	295.1
95°	252.1	265.1	278.0	286.4	290.1	293.9	297.6	301.3
97.5°	272.4	285.0	297.6	305.9	309.8	313.8	317.8	321.8
100°	286.3	298.9	311.5	319.6	323.2	326.8	330.3	333.9
102.5°	303.1	315.6	328.0	336.1	339.6	343.2	346.8	350.4
105°	328.3	340.6	352.8	360.8	364.6	368.3	372.1	375.8
107.5°	356.7	368.3	379.9	387.1	390.1	393.0	396.0	398.9
110°	376.8	387.7	398.6	405.6	408.8	412.1	415.3	418.5





TEST NUMBER: P331442

CATALOG NUMBER: S122DIP-S1005D725U835-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	396.7	407.2	417.7	424.6	428.0	431.3	434.7	438.1
115°	427.8	437.9	447.9	454.5	457.8	461.0	464.2	467.4
117.5°	457.3	467.0	476.7	483.0	485.9	488.9	491.8	494.8
120°	477.2	486.8	496.3	502.7	505.9	509.1	512.4	515.6
122.5°	498.5	507.4	516.2	522.0	524.9	527.7	530.5	533.3
125°	529.1	537.7	546.4	552.2	555.1	558.0	560.9	563.8
127.5°	558.5	566.3	574.2	579.3	581.7	584.2	586.6	589.1
130°	579.3	587.1	595.0	599.9	601.9	604.0	606.0	608.0
132.5°	599.4	606.5	613.6	618.3	620.4	622.6	624.8	627.0
135°	629.6	636.5	643.5	648.1	650.3	652.5	654.7	656.9
137.5°	658.4	664.5	670.6	674.5	676.1	677.7	679.3	681.0
140°	678.4	683.8	689.3	692.7	694.0	695.4	696.7	698.1
142.5°	697.8	702.3	706.8	709.6	710.6	711.7	712.8	713.9
145°	729.0	731.2	733.5	735.1	736.1	737.1	738.1	739.1
147.5°	757.5	758.1	758.8	759.2	759.3	759.5	759.7	759.8
150°	777.2	777.7	778.3	778.3	777.7	777.2	776.7	776.2
152.5°	797.5	798.2	798.8	798.8	798.2	797.5	796.8	796.2
155°	823.2	824.1	825.0	825.2	824.6	824.1	823.6	823.1
157.5°	847.0	848.2	849.4	849.5	848.7	847.9	847.0	846.2
160°	861.1	862.2	863.2	863.4	862.7	862.0	861.3	860.6
162.5°	873.9	875.1	876.3	876.4	875.6	874.8	873.9	873.1
165°	890.4	891.6	892.8	893.0	892.1	891.2	890.4	889.5
167.5°	904.0	905.2	906.4	906.6	905.7	904.8	903.9	903.0
170°	911.5	912.7	913.9	914.0	913.0	911.9	910.9	909.8
172.5°	917.1	918.3	919.5	919.6	918.6	917.5	916.5	915.5
175°	923.2	924.4	925.6	925.7	924.7	923.6	922.6	921.6
177.5°	926.0	926.9	927.7	927.7	926.9	926.0	925.2	924.4
180°	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2

(END OF REPORT)