

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: P331441

Luminaire Tested: **SA2XXDIP-C1005D725U835-4F0-1E-UDD-D**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331441
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C1005D725U835-4F0-1E-UDD-D
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1005 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 725 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

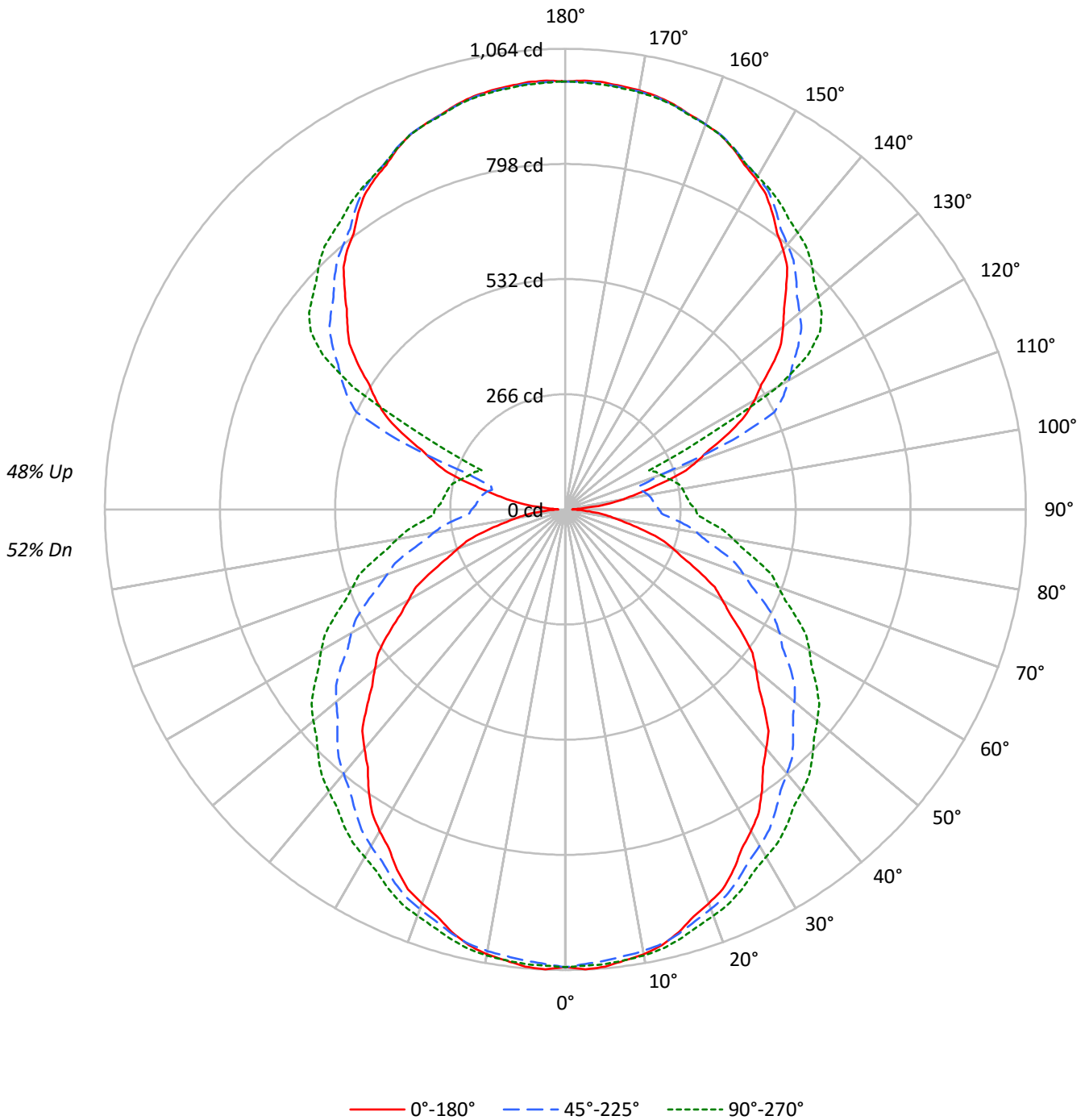
Lumens per Lamp: N/A
Luminaire Lumens: 6933.8 lumens
Efficiency: N/A
Efficacy: 114.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: General Diffuse

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	99	99	99	99	84	84	84	70	70	70	58	58	58	52
1	97	92	87	83	89	85	81	77	72	69	66	60	57	56	49	47	46	40
2	87	79	72	67	80	73	67	62	62	57	53	51	48	45	42	39	37	33
3	79	69	61	55	73	64	57	51	54	49	44	45	41	37	37	34	31	27
4	72	61	52	46	66	56	49	43	48	42	37	40	35	32	32	29	26	23
5	66	54	45	39	61	50	42	37	42	36	32	35	31	27	29	25	23	19
6	61	48	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	17
7	56	43	35	29	52	40	33	28	34	28	24	29	24	21	24	20	17	15
8	52	39	31	26	48	37	29	24	31	26	21	26	22	18	22	18	16	13
9	49	36	28	23	45	33	26	22	29	23	19	24	20	16	20	17	14	12
10	45	33	25	20	42	31	24	19	26	21	17	22	18	15	19	15	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	1.4
10°-20°	287.3	4.1
20°-30°	435.4	6.3
30°-40°	530.3	7.6
40°-50°	570.5	8.2
50°-60°	554.1	8.0
60°-70°	483.8	7.0
70°-80°	372.4	5.4
80°-90°	252.4	3.6
90°-100°	205.2	3.0
100°-110°	246.7	3.6
110°-120°	406.3	5.9
120°-130°	580.0	8.4
130°-140°	586.9	8.5
140°-150°	530.8	7.7
150°-160°	424.1	6.1
160°-170°	273.3	3.9
170°-180°	94.1	1.4
0°-30°	822.9	11.9
0°-40°	1353.3	19.5
0°-60°	2477.9	35.7
0°-90°	3586.5	51.7
90°-120°	858.2	12.4
90°-150°	2555.9	36.9
90°-180°	3347.0	48.3
0°-180°	6933.8	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	113	217	279	301	12
95°	59	110	204	264	284	67
105°	225	281	175	235	257	241
115°	417	450	533	262	213	410
125°	585	597	657	701	719	522
135°	721	733	754	792	804	557
145°	835	835	846	860	864	522
155°	919	914	921	925	920	423
165°	969	965	966	971	966	274
175°	991	986	987	992	985	94
180°	989	989	989	989	989	



TEST NUMBER: P331441

CATALOG NUMBER: SA2XXDIP-C1005D725U835-4F0-1E-UDD-D

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	50.8	71.5	92.1	112.8	134.1	156.2	178.2	200.3	222.3	236.4
90°	16.0	37.5	59.0	80.5	102.0	124.3	147.4	170.5	193.5	216.6	231.0
92.5°	28.5	46.8	65.0	83.2	101.5	121.4	143.0	164.6	186.2	207.9	221.6
95°	58.8	69.5	80.3	91.0	101.8	118.0	139.5	161.0	182.6	204.1	217.9
97.5°	103.0	102.5	101.9	101.4	100.8	111.6	133.8	156.0	178.2	200.4	213.6
100°	137.3	128.2	119.0	109.8	100.6	106.9	128.7	150.5	172.3	194.0	207.9
102.5°	173.9	180.8	187.7	194.6	201.5	202.9	198.8	194.7	190.7	186.6	200.6
105°	225.1	239.8	254.4	269.1	283.7	278.2	252.5	226.8	201.1	175.4	189.1
107.5°	285.3	297.1	308.8	320.6	332.3	320.7	285.6	250.5	215.4	180.3	190.0
110°	323.0	333.2	343.3	353.5	363.6	354.1	324.8	295.6	266.3	237.1	232.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	359.6	368.3	377.0	385.7	394.4	401.0	405.5	410.0	414.5	419.0	371.9
115°	417.4	423.9	430.3	436.8	443.2	456.1	475.4	494.7	514.0	533.3	469.9
117.5°	467.6	473.0	478.5	484.0	489.5	500.6	517.5	534.4	551.3	568.2	560.5
120°	505.3	509.1	512.8	516.6	520.3	530.4	546.9	563.4	579.9	596.4	607.8
122.5°	537.4	540.4	543.5	546.5	549.6	559.1	575.0	590.9	606.9	622.8	633.2
125°	584.6	586.7	588.8	590.8	592.9	600.9	614.8	628.7	642.6	656.6	666.9
127.5°	628.8	630.8	632.7	634.7	636.6	643.1	654.2	665.2	676.3	687.3	697.4
130°	656.9	659.1	661.3	663.5	665.7	671.2	680.1	689.0	697.9	706.8	716.8
132.5°	685.5	687.3	689.1	691.0	692.8	697.3	704.6	711.9	719.1	726.4	735.8
135°	721.2	723.7	726.2	728.8	731.3	735.0	739.9	744.7	749.5	754.4	763.1
137.5°	758.8	760.5	762.2	763.9	765.6	768.1	771.2	774.3	777.4	780.5	788.4
140°	783.4	784.3	785.3	786.2	787.1	788.8	791.2	793.7	796.1	798.5	805.4
142.5°	804.0	804.8	805.6	806.4	807.2	808.7	810.8	813.0	815.1	817.2	822.9
145°	834.8	834.6	834.5	834.3	834.2	835.4	838.1	840.8	843.5	846.2	849.4
147.5°	863.0	862.4	861.8	861.2	860.6	861.6	864.3	866.9	869.6	872.3	873.4
150°	881.3	880.2	879.1	878.0	876.8	877.6	880.1	882.6	885.2	887.7	888.7
152.5°	896.7	895.5	894.3	893.0	891.8	892.4	894.8	897.2	899.6	902.0	903.0
155°	919.2	917.8	916.3	914.9	913.5	913.7	915.6	917.5	919.4	921.3	922.3
157.5°	936.8	935.6	934.4	933.2	932.0	932.0	933.4	934.7	936.0	937.4	938.5
160°	947.1	946.1	945.2	944.2	943.3	943.3	944.2	945.2	946.1	947.1	948.1
162.5°	956.3	955.3	954.4	953.4	952.4	952.4	953.2	954.0	954.9	955.7	956.8
165°	968.6	967.6	966.7	965.7	964.7	964.5	965.0	965.5	965.9	966.4	967.5
167.5°	977.7	976.8	975.8	974.9	973.9	973.6	974.1	974.5	975.0	975.4	976.5
170°	982.9	981.9	981.0	980.0	979.1	978.7	979.1	979.4	979.7	980.0	981.1
172.5°	986.3	985.3	984.4	983.4	982.5	982.2	982.5	982.8	983.1	983.4	984.6
175°	990.7	989.6	988.5	987.4	986.3	985.9	986.2	986.5	986.8	987.2	988.3
177.5°	991.5	990.6	989.7	988.8	987.9	987.5	987.6	987.8	987.9	988.0	988.9
180°	988.6	988.6	988.6	988.6	988.6	988.6	988.6	988.6	988.6	988.6	988.6



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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°	250.4	264.5	278.5	287.8	292.2	296.6	301.0	305.5
90°	245.4	259.9	274.3	283.7	288.1	292.5	296.9	301.3
92.5°	235.4	249.1	262.9	271.9	276.2	280.5	284.8	289.0
95°	231.6	245.3	259.1	267.9	271.8	275.8	279.7	283.6
97.5°	226.9	240.1	253.3	262.1	266.3	270.5	274.7	278.9
100°	221.8	235.6	249.5	258.5	262.5	266.6	270.7	274.7
102.5°	214.6	228.5	242.5	251.6	255.8	260.0	264.2	268.4
105°	202.8	216.4	230.1	239.1	243.5	247.9	252.3	256.7
107.5°	199.6	209.3	219.0	226.0	230.4	234.8	239.1	243.5
110°	227.1	222.1	217.1	216.8	221.1	225.5	229.9	234.3



TEST NUMBER: P331441

CATALOG NUMBER: SA2XXDIP-C1005D725U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	324.9	277.8	230.7	209.3	213.5	217.8	222.0	226.3
115°	406.5	343.2	279.8	244.2	236.5	228.8	221.1	213.4
117.5°	552.8	545.1	537.4	516.4	482.3	448.1	414.0	379.9
120°	619.3	630.7	642.1	639.0	621.3	603.6	585.9	568.2
122.5°	643.6	654.0	664.4	669.1	668.2	667.2	666.2	665.3
125°	677.2	687.5	697.8	704.7	708.3	711.8	715.3	718.9
127.5°	707.4	717.5	727.6	734.2	737.2	740.3	743.4	746.5
130°	726.7	736.6	746.5	752.8	755.3	757.9	760.5	763.0
132.5°	745.2	754.6	764.0	769.9	772.5	775.1	777.6	780.2
135°	771.8	780.6	789.3	794.9	797.3	799.7	802.1	804.5
137.5°	796.2	804.0	811.8	816.6	818.4	820.2	822.0	823.7
140°	812.3	819.2	826.0	830.1	831.3	832.6	833.8	835.1
142.5°	828.6	834.2	839.9	843.2	844.2	845.2	846.1	847.1
145°	852.6	855.7	858.9	860.9	861.8	862.7	863.6	864.5
147.5°	874.5	875.6	876.7	877.3	877.4	877.6	877.7	877.9
150°	889.6	890.6	891.5	891.6	890.8	890.0	889.2	888.4
152.5°	903.9	904.9	905.9	905.8	904.8	903.7	902.7	901.6
155°	923.3	924.2	925.2	925.0	923.7	922.5	921.2	919.9
157.5°	939.5	940.6	941.7	941.6	940.4	939.1	937.9	936.7
160°	949.0	950.0	950.9	950.8	949.7	948.6	947.5	946.4
162.5°	957.8	958.9	960.0	959.9	958.5	957.1	955.8	954.4
165°	968.6	969.8	970.9	970.9	969.8	968.6	967.5	966.4
167.5°	977.7	978.8	979.9	979.7	978.3	976.9	975.4	974.0
170°	982.2	983.3	984.5	984.3	982.9	981.4	980.0	978.6
172.5°	985.7	986.8	987.9	987.7	986.3	984.9	983.4	982.0
175°	989.4	990.5	991.6	991.4	989.8	988.2	986.6	985.0
177.5°	989.8	990.7	991.6	991.5	990.3	989.2	988.0	986.9
180°	988.6	988.6	988.6	988.6	988.6	988.6	988.6	988.6

(END OF REPORT)