

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: P331450-940

Luminaire Tested: **SA2XXDIP-C1005D925U940-4F0-1E-UDD-D**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331450-940
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-C1005D925U940-4F0-1E-UDD-D
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1005 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 925 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

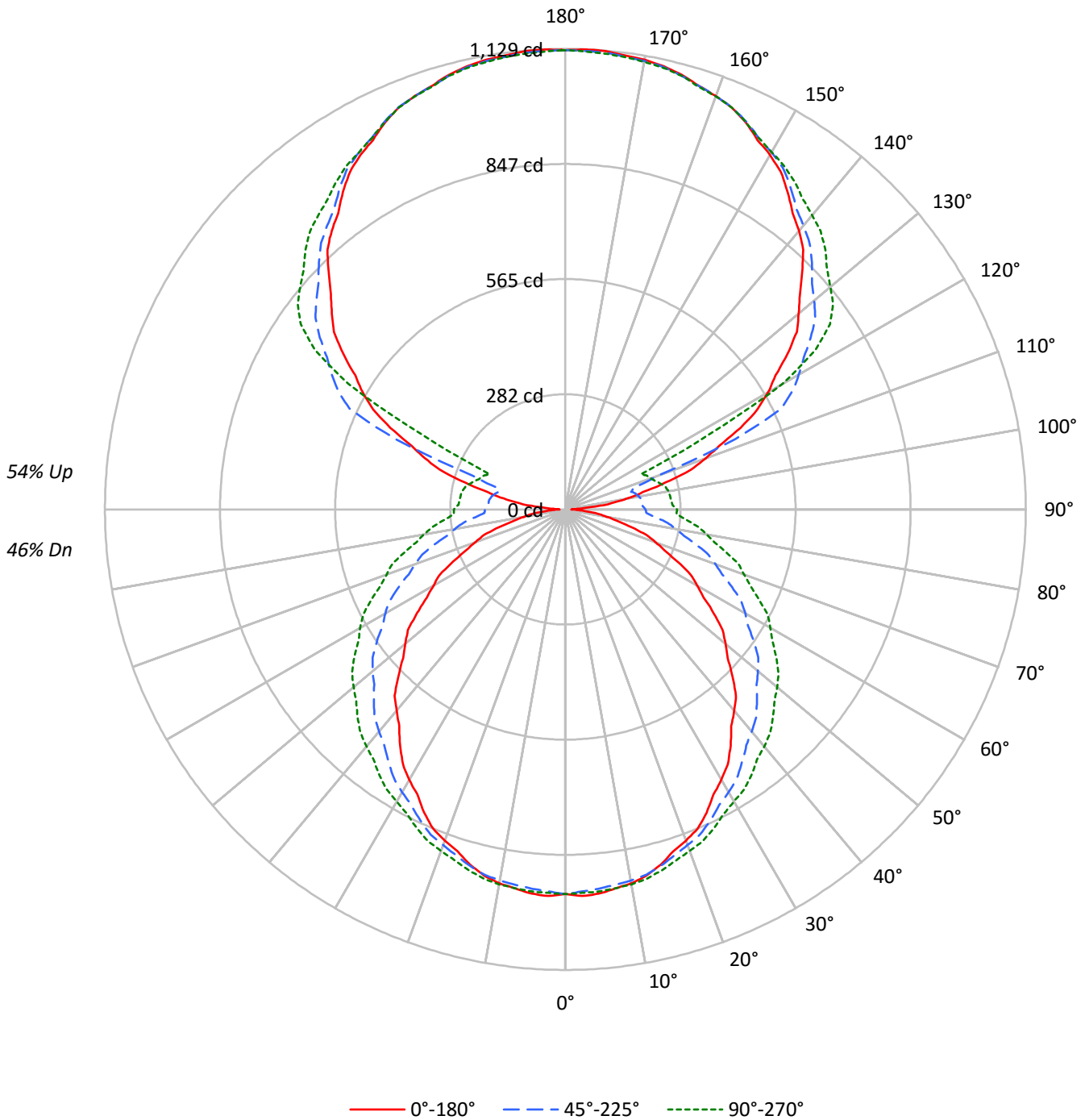
Lumens per Lamp: N/A
Luminaire Lumens: 6898.4 lumens
Efficiency: N/A
Efficacy: 103.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: General Diffuse

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



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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	50	30	10	0	
RCR																						
0	106	106	106	106	98	98	98	98	81	81	81	66	66	66	53	53	53	46				
1	96	91	86	82	87	83	79	76	69	66	64	56	54	52	44	43	42	36				
2	86	78	72	66	79	72	66	61	60	55	52	49	45	43	38	36	34	29				
3	79	68	61	54	72	63	56	50	52	47	43	43	39	36	33	31	28	24				
4	72	60	52	46	65	55	48	42	46	41	36	38	33	30	30	27	24	20				
5	66	53	45	39	60	49	42	36	41	35	31	34	29	26	27	23	21	17				
6	60	48	39	33	55	44	37	31	37	31	27	30	26	22	24	21	18	15				
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	22	18	16	13				
8	52	39	31	26	47	36	29	24	30	25	21	25	21	17	20	17	14	12				
9	48	35	28	23	44	33	26	21	28	22	18	23	19	16	18	15	13	11				
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	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	1.3
10°-20°	256.2	3.7
20°-30°	388.3	5.6
30°-40°	472.9	6.9
40°-50°	508.8	7.4
50°-60°	494.1	7.2
60°-70°	431.4	6.3
70°-80°	332.1	4.8
80°-90°	225.7	3.3
90°-100°	191.1	2.8
100°-110°	249.8	3.6
110°-120°	442.1	6.4
120°-130°	648.8	9.4
130°-140°	663.4	9.6
140°-150°	603.5	8.7
150°-160°	482.8	7.0
160°-170°	311.1	4.5
170°-180°	107.1	1.6
0°-30°	733.8	10.6
0°-40°	1206.7	17.5
0°-60°	2209.5	32.0
0°-90°	3198.7	46.4
90°-120°	883.0	12.8
90°-150°	2798.7	40.6
90°-180°	3700.0	53.6
0°-180°	6898.4	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	103	197	253	273	12
95°	64	104	189	243	260	73
105°	254	307	167	222	242	272
115°	474	506	584	265	205	466
125°	665	678	735	776	792	593
135°	821	834	855	890	901	634
145°	950	950	963	977	980	595
155°	1046	1040	1049	1053	1047	482
165°	1103	1098	1100	1105	1100	311
175°	1128	1123	1124	1129	1121	107
180°	1126	1126	1126	1126	1126	



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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	45.5	63.9	82.5	100.9	120.0	139.7	159.5	179.2	198.9	211.5
90°	14.4	34.1	53.7	73.3	92.9	113.2	134.0	154.9	175.8	196.7	209.7
92.5°	29.0	45.2	61.4	77.7	93.9	111.7	131.2	150.6	170.0	189.4	201.8
95°	63.8	72.1	80.4	88.8	97.1	110.9	130.5	150.0	169.4	189.0	201.3
97.5°	114.6	110.5	106.4	102.2	98.1	106.2	126.6	147.0	167.5	187.9	199.8
100°	153.7	140.2	126.6	113.1	99.5	102.7	122.8	142.9	163.0	183.1	195.7
102.5°	195.6	200.6	205.6	210.7	215.7	213.6	204.4	195.2	185.9	176.7	189.6
105°	254.4	268.7	282.9	297.1	311.4	301.7	268.0	234.4	200.8	167.2	179.9
107.5°	323.1	334.5	345.9	357.3	368.7	352.4	308.3	264.1	220.0	175.8	184.0
110°	366.2	376.1	386.0	395.8	405.7	392.0	354.5	317.1	279.7	242.3	233.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	408.0	416.4	424.9	433.4	441.8	446.7	447.9	449.2	450.3	451.6	395.3
115°	473.8	480.2	486.6	493.0	499.4	511.8	529.9	548.1	566.3	584.5	509.8
117.5°	531.2	536.8	542.4	548.0	553.7	564.4	580.1	595.8	611.6	627.3	616.1
120°	574.2	578.1	582.0	585.9	589.9	599.6	614.9	630.4	645.8	661.2	671.8
122.5°	610.6	614.0	617.3	620.7	624.0	633.2	648.2	663.2	678.1	693.0	702.6
125°	664.9	667.2	669.5	671.9	674.2	682.0	695.2	708.3	721.5	734.6	744.1
127.5°	715.2	717.5	719.8	722.1	724.3	730.8	741.1	751.5	762.0	772.3	781.8
130°	747.1	749.7	752.2	754.8	757.4	762.9	771.3	779.7	788.0	796.4	805.7
132.5°	779.6	781.9	784.0	786.1	788.3	792.8	799.8	806.6	813.6	820.5	829.2
135°	820.6	823.6	826.4	829.3	832.2	836.0	840.7	845.3	850.0	854.7	862.8
137.5°	863.4	865.5	867.5	869.4	871.4	874.0	877.1	880.3	883.5	886.6	894.0
140°	891.5	892.6	893.8	894.9	896.1	898.0	900.5	903.1	905.7	908.3	914.8
142.5°	915.0	916.0	916.9	917.9	918.9	920.7	923.0	925.4	927.8	930.2	935.7
145°	950.4	950.2	950.0	949.9	949.7	951.1	954.2	957.3	960.4	963.4	966.5
147.5°	982.5	981.8	981.1	980.4	979.7	980.9	983.9	987.0	990.1	993.1	994.3
150°	1003.4	1002.1	1000.8	999.5	998.3	999.1	1002.0	1004.9	1007.8	1010.7	1011.7
152.5°	1020.9	1019.5	1018.1	1016.7	1015.3	1015.9	1018.7	1021.5	1024.2	1027.0	1028.1
155°	1046.5	1044.9	1043.2	1041.6	1040.0	1040.3	1042.4	1044.6	1046.8	1048.9	1050.0
157.5°	1066.5	1065.1	1063.8	1062.4	1061.0	1061.1	1062.7	1064.2	1065.7	1067.2	1068.4
160°	1078.3	1077.2	1076.1	1075.0	1073.9	1073.9	1075.0	1076.1	1077.2	1078.3	1079.3
162.5°	1088.7	1087.6	1086.5	1085.4	1084.3	1084.2	1085.2	1086.1	1087.1	1088.1	1089.2
165°	1102.7	1101.6	1100.5	1099.4	1098.3	1098.1	1098.6	1099.1	1099.7	1100.3	1101.5
167.5°	1113.1	1112.1	1111.0	1109.8	1108.8	1108.5	1109.0	1109.5	1110.0	1110.5	1111.8
170°	1119.0	1117.8	1116.8	1115.7	1114.6	1114.3	1114.6	1115.0	1115.4	1115.7	1117.0
172.5°	1122.8	1121.8	1120.7	1119.6	1118.6	1118.2	1118.6	1118.9	1119.3	1119.6	1120.9
175°	1127.9	1126.7	1125.4	1124.1	1122.8	1122.4	1122.8	1123.1	1123.5	1123.8	1125.2
177.5°	1128.7	1127.7	1126.8	1125.7	1124.7	1124.3	1124.4	1124.5	1124.7	1124.8	1125.9
180°	1125.5	1125.5	1125.5	1125.5	1125.5	1125.5	1125.5	1125.5	1125.5	1125.5	1125.5



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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°	224.1	236.7	249.2	257.5	261.4	265.5	269.4	273.3
90°	222.7	235.9	248.9	257.4	261.4	265.5	269.5	273.4
92.5°	214.2	226.6	239.0	247.1	250.9	254.8	258.7	262.5
95°	213.8	226.2	238.7	246.6	250.1	253.6	257.1	260.5
97.5°	211.9	223.8	235.8	243.6	247.4	251.2	255.0	258.9
100°	208.5	221.1	233.8	242.0	245.7	249.4	253.2	256.8
102.5°	202.5	215.3	228.2	236.6	240.4	244.3	248.2	252.0
105°	192.4	205.1	217.7	226.0	230.1	234.2	238.2	242.3
107.5°	192.3	200.4	208.6	214.7	218.7	222.8	226.9	231.0
110°	225.5	217.1	208.7	206.6	210.6	214.7	218.8	222.8



TEST NUMBER: P331450-940

CATALOG NUMBER: SA2XXDIP-C1005D925U940-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	338.9	282.7	226.4	200.2	204.1	208.0	212.0	215.9
115°	435.2	360.4	285.8	243.5	233.9	224.2	214.5	204.8
117.5°	604.8	593.5	582.2	556.7	517.0	477.2	437.6	397.9
120°	682.5	693.2	703.9	698.7	677.6	656.5	635.4	614.3
122.5°	712.2	721.8	731.3	735.1	733.3	731.4	729.5	727.6
125°	753.6	763.0	772.5	778.8	782.1	785.4	788.7	791.9
127.5°	791.1	800.5	809.9	815.9	818.7	821.5	824.3	827.1
130°	814.9	824.2	833.5	839.3	841.5	843.8	846.1	848.3
132.5°	837.9	846.7	855.4	860.9	863.2	865.5	867.7	870.0
135°	871.0	879.2	887.4	892.5	894.7	896.7	898.8	900.8
137.5°	901.3	908.7	916.1	920.5	921.9	923.4	924.9	926.3
140°	921.3	927.8	934.3	938.0	938.9	939.9	940.8	941.6
142.5°	941.0	946.4	951.7	954.8	955.5	956.1	956.8	957.4
145°	969.6	972.7	975.8	977.7	978.2	978.8	979.5	980.1
147.5°	995.4	996.7	997.8	998.4	998.4	998.4	998.3	998.3
150°	1012.8	1014.0	1015.0	1015.1	1014.2	1013.3	1012.4	1011.5
152.5°	1029.1	1030.2	1031.3	1031.3	1030.0	1028.9	1027.7	1026.4
155°	1051.1	1052.2	1053.3	1053.1	1051.7	1050.2	1048.7	1047.3
157.5°	1069.6	1070.9	1072.1	1072.0	1070.6	1069.2	1067.7	1066.4
160°	1080.4	1081.6	1082.6	1082.5	1081.2	1080.0	1078.7	1077.5
162.5°	1090.5	1091.7	1093.0	1092.8	1091.3	1089.7	1088.2	1086.5
165°	1102.8	1104.0	1105.3	1105.3	1104.0	1102.8	1101.5	1100.3
167.5°	1113.0	1114.3	1115.6	1115.4	1113.7	1112.1	1110.5	1108.8
170°	1118.3	1119.5	1120.8	1120.6	1119.0	1117.3	1115.7	1114.1
172.5°	1122.1	1123.5	1124.7	1124.5	1122.8	1121.2	1119.6	1118.0
175°	1126.4	1127.7	1128.9	1128.6	1126.9	1125.1	1123.2	1121.4
177.5°	1126.9	1127.9	1128.9	1128.7	1127.5	1126.1	1124.8	1123.6
180°	1125.5	1125.5	1125.5	1125.5	1125.5	1125.5	1125.5	1125.5

(END OF REPORT)