

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: P331432-940

Luminaire Tested: **SA2XXDIP-C1005D530U940-4F0-1E-UDD-D**

Issue Date: 10/7/2019

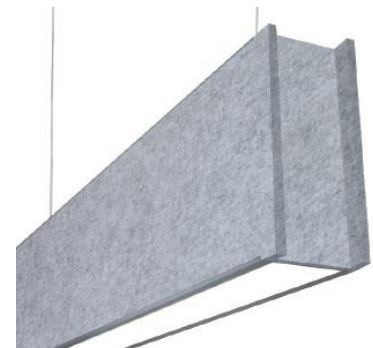
Test Information

Test Method: LM-79-08
Report Number: P331432-940
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-C1005D530U940-4F0-1E-UDD-D
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1005 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 530 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5483.6 lumens
Efficiency: N/A
Efficacy: 99.5 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

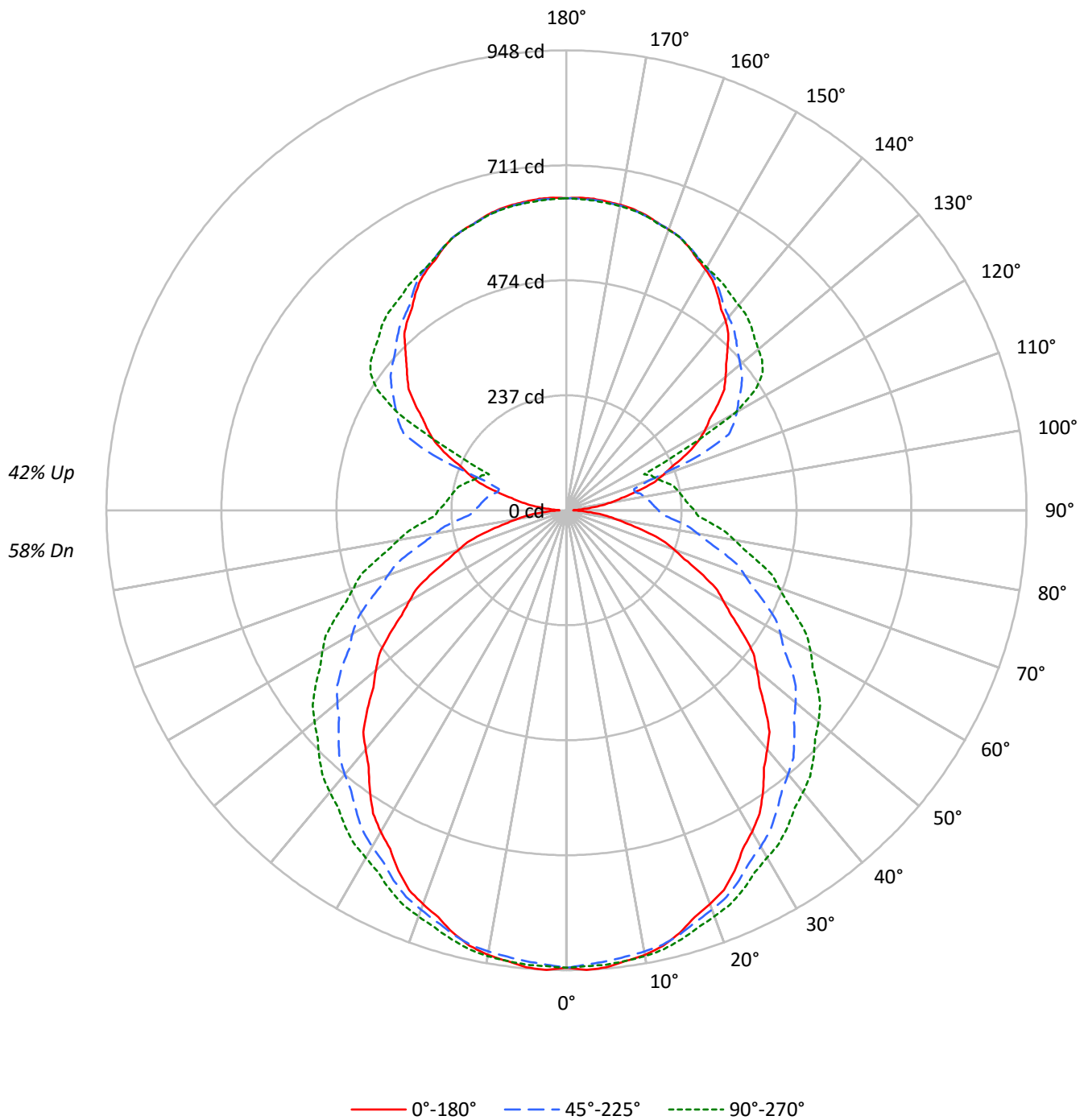
Input Watts (W): 55.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	109	109	109	109	102	102	102	102	88	88	88	75	75	75	64	64	64
1	98	93	88	84	91	86	82	79	75	71	69	64	61	59	54	52	50
2	88	80	73	67	82	75	68	63	64	60	55	55	51	48	46	43	41
3	80	70	62	55	74	65	58	52	56	51	46	48	44	40	40	37	34
4	73	61	53	46	68	57	50	44	50	43	39	42	38	34	36	32	29
5	67	55	46	39	62	51	43	37	44	38	33	38	33	29	32	28	25
6	62	49	40	34	57	46	38	32	40	33	29	34	29	25	29	25	22
7	57	44	36	30	53	41	34	28	36	30	25	31	26	22	26	22	19
8	53	40	32	26	49	37	30	25	33	27	22	28	23	20	24	20	17
9	49	36	28	23	46	34	27	22	30	24	20	26	21	18	22	18	15
10	46	33	26	21	43	31	24	20	28	22	18	24	19	16	21	17	14

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	1.6
10°-20°	256.2	4.7
20°-30°	388.3	7.1
30°-40°	472.9	8.6
40°-50°	508.8	9.3
50°-60°	494.1	9.0
60°-70°	431.4	7.9
70°-80°	332.1	6.1
80°-90°	224.5	4.1
90°-100°	175.0	3.2
100°-110°	190.8	3.5
110°-120°	284.3	5.2
120°-130°	388.5	7.1
130°-140°	386.5	7.0
140°-150°	346.1	6.3
150°-160°	275.9	5.0
160°-170°	177.8	3.2
170°-180°	61.2	1.1
0°-30°	733.8	13.4
0°-40°	1206.7	22.0
0°-60°	2209.5	40.3
0°-90°	3197.5	58.3
90°-120°	650.1	11.9
90°-150°	1771.3	32.3
90°-180°	2286.0	41.7
0°-180°	5483.6	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	99	190	244	264	11
95°	41	92	175	227	246	46
105°	148	196	146	197	216	159
115°	273	299	369	203	176	268
125°	381	390	440	478	494	340
135°	470	478	495	527	538	363
145°	543	543	550	562	566	340
155°	598	594	599	602	598	275
165°	630	628	629	632	629	178
175°	644	642	642	645	641	61
180°	643	643	643	643	643	

TEST NUMBER: P331432-940

CATALOG NUMBER: SA2XXDIP-C1005D530U940-4F0-1E-UDD-D

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°	26.8	45.2	63.5	81.9	100.2	119.1	138.8	158.4	178.0	197.5	210.1
90°	14.1	32.9	51.6	70.4	89.2	108.6	128.9	149.2	169.4	189.7	202.3
92.5°	21.9	38.3	54.6	70.9	87.1	104.9	123.9	143.1	162.2	181.4	193.5
95°	41.2	52.1	62.9	73.7	84.6	99.5	118.5	137.4	156.3	175.3	187.3
97.5°	69.6	72.7	75.7	78.8	81.9	93.0	112.2	131.3	150.5	169.7	181.4
100°	91.9	89.0	86.1	83.1	80.2	88.1	106.9	125.6	144.5	163.2	175.2
102.5°	115.4	122.7	129.9	137.2	144.5	149.0	150.8	152.7	154.4	156.3	168.4
105°	148.3	160.2	172.1	184.0	195.9	195.6	183.2	170.8	158.4	145.9	157.7
107.5°	187.4	197.0	206.5	216.1	225.6	221.0	202.2	183.5	164.8	146.1	155.1
110°	211.6	219.9	228.1	236.4	244.6	241.2	226.2	211.2	196.2	181.2	180.6

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	235.4	242.5	249.5	256.5	263.6	270.5	277.2	284.0	290.8	297.5	269.5
115°	273.0	278.1	283.2	288.4	293.5	304.1	320.4	336.6	352.8	369.1	330.4
117.5°	305.3	309.4	313.6	317.7	321.9	331.2	345.5	360.0	374.4	388.8	386.2
120°	329.8	332.6	335.4	338.1	340.9	349.3	363.3	377.3	391.3	405.4	415.1
122.5°	350.7	352.8	354.9	357.0	359.2	366.9	380.4	393.9	407.3	420.7	429.7
125°	381.0	382.5	383.8	385.1	386.5	393.0	404.7	416.3	428.0	439.7	448.6
127.5°	409.8	411.0	412.2	413.4	414.6	419.8	429.1	438.5	447.7	457.0	465.7
130°	428.1	429.4	430.8	432.1	433.5	437.9	445.4	452.9	460.5	468.0	476.4
132.5°	446.7	447.8	448.9	450.0	451.1	454.7	460.7	466.8	472.9	478.9	487.0
135°	469.5	471.2	472.8	474.5	476.2	478.9	483.0	486.9	490.9	494.8	502.2
137.5°	494.0	495.1	496.1	497.3	498.4	500.2	502.5	504.9	507.3	509.7	516.3
140°	510.0	510.5	511.0	511.6	512.1	513.3	515.0	516.7	518.4	520.2	526.0
142.5°	523.4	523.9	524.3	524.7	525.1	526.1	527.5	529.0	530.4	531.8	536.5
145°	543.1	543.0	542.9	542.8	542.7	543.5	545.3	547.0	548.8	550.5	553.0
147.5°	561.4	561.0	560.6	560.3	559.8	560.5	562.2	564.0	565.7	567.5	568.2
150°	573.3	572.6	571.9	571.1	570.4	570.9	572.6	574.2	575.9	577.5	578.1
152.5°	583.4	582.6	581.8	580.9	580.1	580.5	582.1	583.7	585.2	586.8	587.5
155°	598.0	597.1	596.1	595.2	594.2	594.4	595.7	596.9	598.2	599.4	600.0
157.5°	609.4	608.7	607.9	607.1	606.3	606.4	607.2	608.1	608.9	609.8	610.5
160°	616.2	615.5	614.9	614.3	613.7	613.7	614.3	614.9	615.5	616.2	616.8
162.5°	622.1	621.4	620.8	620.2	619.6	619.6	620.1	620.6	621.2	621.7	622.4
165°	630.1	629.5	628.8	628.2	627.6	627.5	627.8	628.0	628.4	628.7	629.5
167.5°	636.1	635.4	634.8	634.2	633.6	633.4	633.6	634.0	634.3	634.5	635.3
170°	639.4	638.8	638.2	637.6	636.9	636.7	636.9	637.1	637.3	637.6	638.3
172.5°	641.7	641.1	640.4	639.8	639.2	638.9	639.2	639.4	639.5	639.8	640.5
175°	644.5	643.8	643.1	642.4	641.6	641.4	641.6	641.8	641.9	642.2	642.9
177.5°	645.0	644.4	643.8	643.3	642.7	642.4	642.5	642.6	642.7	642.7	643.4
180°	643.1	643.1	643.1	643.1	643.1	643.1	643.1	643.1	643.1	643.1	643.1

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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°	222.6	235.1	247.5	255.7	259.7	263.6	267.5	271.4
90°	215.0	227.7	240.3	248.6	252.4	256.3	260.2	264.0
92.5°	205.7	217.8	230.1	238.0	241.7	245.6	249.3	253.1
95°	199.4	211.5	223.6	231.3	234.9	238.4	241.9	245.5
97.5°	193.0	204.6	216.3	224.0	227.7	231.4	235.1	238.8
100°	187.3	199.4	211.4	219.3	222.7	226.3	229.9	233.4
102.5°	180.4	192.5	204.6	212.4	216.1	219.6	223.3	226.9
105°	169.4	181.2	193.0	200.7	204.5	208.2	212.0	215.8
107.5°	164.2	173.2	182.3	188.7	192.4	196.2	199.9	203.7
110°	179.9	179.3	178.7	180.3	184.0	187.8	191.5	195.3

TEST NUMBER: P331432-940

CATALOG NUMBER: SA2XXDIP-C1005D530U940-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	241.5	213.5	185.5	173.3	177.0	180.7	184.3	188.0
115°	291.6	252.8	214.0	192.6	188.5	184.4	180.3	176.2
117.5°	383.6	381.0	378.4	366.5	345.1	323.7	302.4	281.0
120°	424.8	434.5	444.3	443.9	433.3	422.7	412.0	401.4
122.5°	438.7	447.7	456.7	461.4	461.5	461.6	461.7	461.9
125°	457.5	466.5	475.4	481.3	484.4	487.4	490.5	493.6
127.5°	474.2	482.8	491.3	497.0	499.8	502.5	505.2	508.0
130°	484.8	493.2	501.7	507.0	509.3	511.7	514.0	516.4
132.5°	494.9	502.9	511.0	516.1	518.4	520.8	523.2	525.5
135°	509.6	517.0	524.5	529.3	531.5	533.7	535.9	538.1
137.5°	522.9	529.5	536.1	540.3	542.0	543.7	545.4	547.1
140°	531.8	537.6	543.4	546.9	548.2	549.6	550.8	552.1
142.5°	541.3	546.0	550.7	553.7	554.7	555.8	556.8	557.9
145°	555.6	558.1	560.7	562.5	563.5	564.5	565.5	566.5
147.5°	569.0	569.8	570.6	571.1	571.4	571.7	572.0	572.3
150°	578.7	579.3	580.0	580.1	579.5	579.0	578.5	578.0
152.5°	588.1	588.7	589.3	589.2	588.6	587.9	587.2	586.6
155°	600.7	601.3	601.9	601.7	600.9	600.1	599.3	598.4
157.5°	611.2	611.9	612.6	612.6	611.7	610.9	610.1	609.3
160°	617.3	618.0	618.6	618.6	617.9	617.2	616.4	615.6
162.5°	623.1	623.8	624.6	624.5	623.6	622.7	621.8	620.9
165°	630.2	630.9	631.6	631.6	630.9	630.2	629.5	628.7
167.5°	636.0	636.8	637.5	637.4	636.4	635.5	634.5	633.6
170°	639.0	639.7	640.4	640.3	639.4	638.5	637.6	636.6
172.5°	641.2	641.9	642.7	642.6	641.7	640.7	639.8	638.8
175°	643.6	644.4	645.1	645.0	643.9	642.8	641.9	640.8
177.5°	643.9	644.5	645.1	645.0	644.3	643.5	642.7	642.0
180°	643.1	643.1	643.1	643.1	643.1	643.1	643.1	643.1

(END OF REPORT)