

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: P331434-830

Luminaire Tested: **SA2XXDIP-C1005D530U830-4F0-1E-UDD-D4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331434-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-16,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C1005D530U830-4F0-1E-UDD-D4
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1005 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 530 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

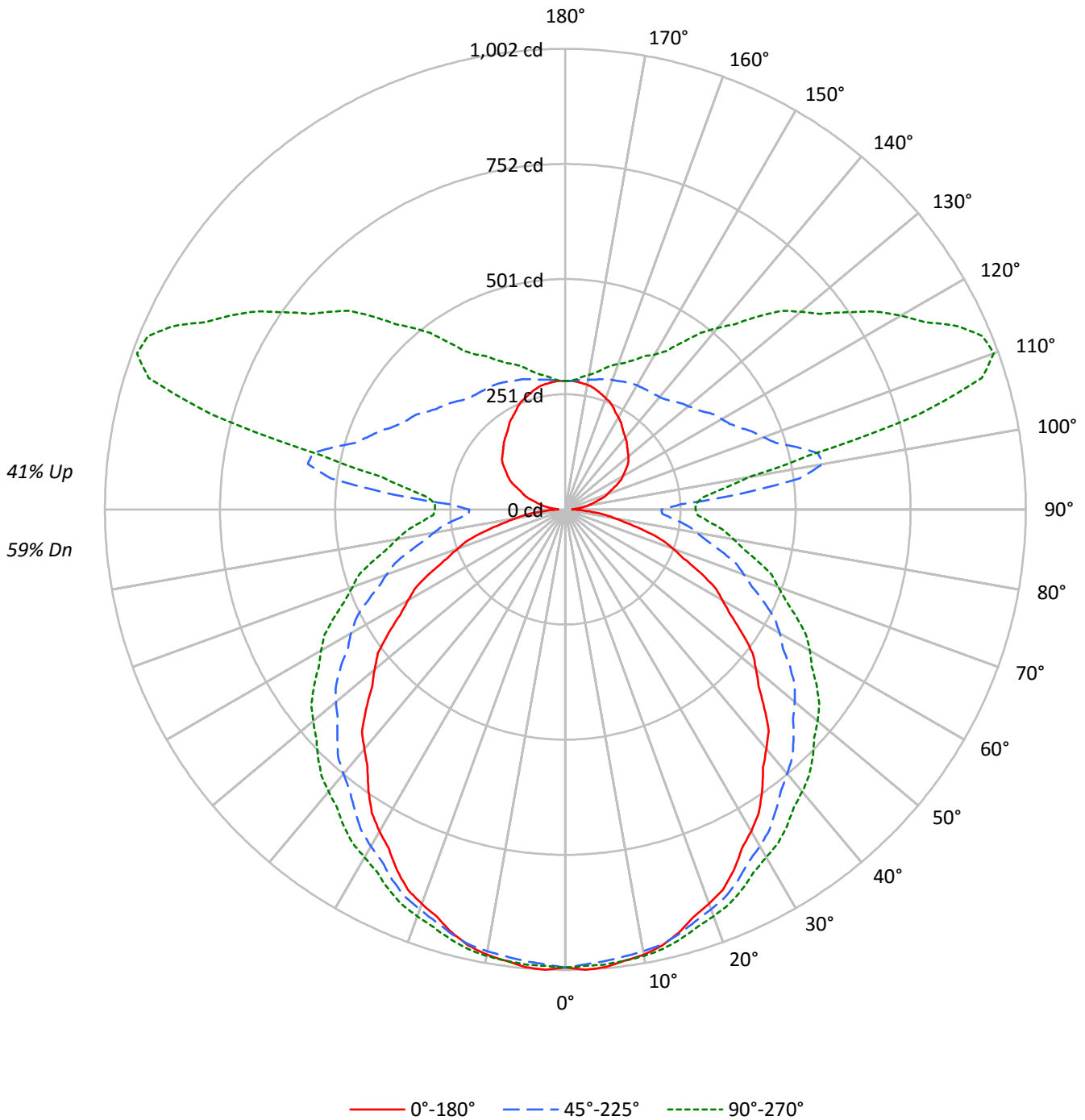
Lumens per Lamp: N/A
Luminaire Lumens: 5750.0 lumens
Efficiency: N/A
Efficacy: 104.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: General Diffuse

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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64	59
1	98	93	88	84	91	87	82	79	75	72	69	64	62	60	54	52	51	46
2	89	80	73	67	82	75	69	63	65	60	56	55	52	48	46	44	41	37
3	80	70	62	55	74	65	58	52	56	51	46	48	44	40	41	37	34	31
4	73	61	53	46	68	57	50	44	50	44	39	43	38	34	36	32	29	26
5	67	55	46	39	62	51	43	37	44	38	33	38	33	29	32	28	25	22
6	62	49	40	34	57	46	38	32	40	33	29	34	29	25	29	25	22	19
7	57	44	36	30	53	41	34	28	36	30	25	31	26	22	27	22	19	17
8	53	40	32	26	49	37	30	25	33	27	22	28	23	20	24	20	17	15
9	49	36	29	23	46	34	27	22	30	24	20	26	21	18	22	18	16	13
10	46	33	26	21	43	31	24	20	28	22	18	24	19	16	21	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16091	16091	16091
5°	16172	15491	15432
10°	16069	15033	14865
15°	15848	14548	14266
20°	15567	14030	13691
25°	15292	13528	13167
30°	14902	13015	12643
35°	14508	12517	12274
40°	14092	12094	11903
45°	13700	11715	11587
50°	13277	11373	11276
55°	12834	11004	10959
60°	12292	10623	10624
65°	11728	10173	10227
70°	11096	9693	9797
75°	10286	9222	9401
80°	9006	8739	9001
85°	7780	8321	8687



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.4	1.6
10°-20°	270.8	4.7
20°-30°	410.4	7.1
30°-40°	499.9	8.7
40°-50°	537.8	9.4
50°-60°	522.2	9.1
60°-70°	456.0	7.9
70°-80°	351.0	6.1
80°-90°	238.1	4.1
90°-100°	274.1	4.8
100°-110°	497.8	8.7
110°-120°	481.2	8.4
120°-130°	375.4	6.5
130°-140°	284.7	5.0
140°-150°	204.5	3.6
150°-160°	141.4	2.5
160°-170°	83.3	1.4
170°-180°	27.1	0.5
0°-30°	775.7	13.5
0°-40°	1275.5	22.2
0°-60°	2335.5	40.6
0°-90°	3380.6	58.8
90°-120°	1253.0	21.8
90°-150°	2117.5	36.8
90°-180°	2369.0	41.2
0°-180°	5750.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	997	997	997	997	997	
5°	1000	995	987	995	994	95
15°	953	956	956	968	968	268
25°	867	877	890	906	911	398
35°	747	772	799	829	841	467
45°	612	652	702	745	761	473
55°	470	523	596	647	667	420
65°	321	392	477	534	555	318
75°	178	259	351	411	432	188
85°	52	142	234	292	315	56
90°	15	106	209	264	284	11
95°	30	127	377	298	300	29
105°	73	150	522	885	796	78
115°	121	170	420	816	943	120
125°	164	196	370	644	748	146
135°	191	228	332	513	594	148
145°	216	248	315	400	444	136
155°	246	265	306	346	360	113
165°	268	276	293	311	316	75
175°	279	279	282	285	284	26
180°	280	280	280	280	280	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6
2.5°	1002.5	1001.7	1000.9	1000.1	999.4	998.1	996.3	994.5	992.7	990.9	992.2
5°	999.6	998.6	997.7	996.6	995.7	994.3	992.4	990.4	988.5	986.6	988.5
7.5°	990.6	990.0	989.3	988.7	988.1	987.0	985.5	984.0	982.6	981.1	983.4
10°	983.7	983.1	982.4	981.8	981.1	980.3	979.4	978.4	977.4	976.5	979.0
12.5°	972.1	972.2	972.4	972.5	972.6	972.3	971.7	970.9	970.3	969.5	972.1
15°	953.4	954.0	954.6	955.3	955.9	956.2	956.2	956.2	956.2	956.2	959.1
17.5°	929.1	930.5	931.8	933.1	934.4	935.7	936.7	937.7	938.8	939.8	942.8
20°	912.9	914.5	916.2	917.8	919.4	920.8	922.1	923.3	924.6	926.0	929.4
22.5°	895.6	897.4	899.3	901.2	903.1	904.8	906.6	908.4	910.2	912.0	915.6
25°	866.7	868.9	871.2	873.5	875.7	878.3	881.1	884.0	886.9	889.8	893.6
27.5°	832.0	835.7	839.3	843.0	846.7	850.2	853.6	857.0	860.4	863.8	868.6
30°	808.9	813.0	817.3	821.4	825.6	829.8	834.0	838.1	842.3	846.5	851.6
32.5°	783.4	788.2	792.9	797.6	802.2	807.0	812.0	816.9	821.9	826.8	832.7
35°	746.8	752.2	757.7	763.2	768.6	774.4	780.5	786.6	792.7	798.8	805.9
37.5°	706.9	713.2	719.5	725.8	732.1	739.1	747.1	755.0	762.9	770.8	778.6
40°	680.3	687.4	694.5	701.5	708.6	716.4	725.1	733.8	742.4	751.1	759.5
42.5°	655.0	661.9	669.0	676.1	683.2	691.6	701.6	711.6	721.5	731.5	740.6
45°	612.5	621.1	629.8	638.5	647.1	657.0	668.4	679.6	690.8	702.0	712.0
47.5°	570.6	580.0	589.5	598.9	608.3	619.6	632.8	645.9	659.1	672.2	682.7
50°	541.7	551.7	561.6	571.6	581.5	593.7	608.1	622.5	637.0	651.5	662.4
52.5°	514.0	524.4	534.9	545.4	555.8	568.6	583.8	599.1	614.3	629.5	640.6
55°	469.5	481.0	492.6	504.2	515.7	529.8	546.5	563.2	579.9	596.5	608.1
57.5°	425.6	438.6	451.6	464.7	477.7	492.7	509.7	526.7	543.8	560.7	573.2
60°	394.4	408.1	422.0	435.7	449.6	465.6	483.9	502.2	520.5	538.8	551.0
62.5°	366.6	380.9	395.2	409.5	423.9	440.2	458.5	476.7	495.1	513.4	526.3
65°	320.7	336.4	352.1	367.9	383.6	401.0	419.9	438.8	457.7	476.6	489.8
67.5°	278.5	294.9	311.3	327.8	344.2	362.1	381.5	401.0	420.3	439.7	453.0
70°	248.5	265.1	281.8	298.5	315.2	333.5	353.5	373.3	393.2	413.1	426.9
72.5°	220.7	237.9	255.1	272.3	289.5	308.2	328.4	348.6	368.7	388.9	402.4
75°	177.7	195.7	213.6	231.6	249.6	268.8	289.4	309.9	330.5	351.0	364.8
77.5°	136.1	154.9	173.7	192.5	211.3	231.1	252.0	272.9	293.7	314.6	328.4
80°	108.3	127.9	147.5	167.1	186.6	206.9	227.7	248.6	269.5	290.3	303.8
82.5°	85.2	104.5	123.9	143.2	162.5	182.8	203.9	225.0	246.1	267.2	280.7
85°	52.0	71.9	91.8	111.7	131.6	151.8	172.4	192.9	213.5	234.0	247.5
87.5°	28.5	47.9	67.4	86.8	106.1	126.3	147.4	168.6	189.8	210.5	223.5
90°	15.0	35.3	56.0	75.7	95.4	116.6	139.8	164.1	187.8	209.0	221.2
92.5°	19.9	40.1	61.3	81.0	102.0	125.5	157.5	194.4	229.4	250.2	251.8
95°	30.3	47.6	68.1	88.0	111.7	141.8	185.8	251.8	333.4	376.8	362.7
97.5°	40.7	57.0	76.2	96.9	120.3	150.8	200.4	284.0	406.1	513.4	542.9
100°	51.5	65.0	81.7	102.2	124.8	154.8	201.2	284.8	418.9	569.1	658.4
102.5°	60.2	72.3	87.9	107.4	129.4	158.6	202.5	278.1	403.1	563.2	696.4
105°	72.8	84.3	97.4	114.7	135.8	163.9	205.9	270.4	375.8	522.5	676.7
107.5°	88.0	97.2	108.3	123.1	142.3	169.2	209.6	267.4	356.7	480.1	617.3
110°	97.2	105.8	115.4	128.8	146.5	173.1	212.5	266.9	348.3	458.6	580.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	106.6	114.1	123.2	135.2	151.4	177.6	215.4	266.8	341.4	441.0	551.4
115°	121.3	127.5	134.3	144.3	158.5	182.1	219.6	266.8	333.5	419.9	514.5
117.5°	135.2	139.6	145.2	153.2	165.8	188.7	223.5	267.5	326.6	403.0	486.4
120°	144.6	148.1	152.6	158.7	170.7	192.8	226.7	268.5	322.7	393.1	470.3
122.5°	153.6	155.9	159.7	165.4	176.6	198.4	230.2	269.1	319.6	384.5	455.8
125°	164.2	165.8	169.0	175.4	186.2	206.4	236.0	270.4	314.1	369.5	433.5
127.5°	173.6	175.4	179.6	186.4	196.4	215.8	243.0	273.0	310.3	357.2	412.7
130°	179.2	181.1	186.1	193.3	203.7	222.0	247.5	274.7	308.3	349.5	399.1
132.5°	184.4	186.6	192.1	199.7	210.6	228.1	251.3	276.4	306.3	342.0	386.7
135°	190.7	192.8	199.3	207.4	219.7	236.3	256.7	278.8	303.5	332.5	369.9
137.5°	197.9	200.5	206.9	215.4	227.6	242.2	260.6	279.6	300.6	324.0	355.6
140°	203.6	205.4	211.5	219.8	231.3	245.4	262.2	279.5	298.4	319.0	347.2
142.5°	209.2	210.6	216.2	224.5	235.6	248.6	264.5	280.8	297.9	316.6	340.8
145°	216.1	218.2	223.6	231.7	242.4	254.2	268.7	283.8	298.9	315.0	334.1
147.5°	225.1	226.7	231.9	239.3	248.3	258.7	272.4	285.7	299.3	313.0	328.4
150°	231.1	232.7	237.0	244.0	252.1	261.7	274.1	286.5	298.9	311.8	324.7
152.5°	237.1	237.9	242.2	248.4	256.0	264.8	275.9	286.9	298.0	309.6	321.7
155°	245.6	246.2	249.4	255.3	261.3	269.3	278.4	287.6	296.7	305.9	316.0
157.5°	252.7	253.3	255.9	261.0	265.8	272.5	280.2	287.6	294.3	302.0	310.8
160°	257.5	258.0	260.1	264.5	268.7	274.7	281.2	287.6	292.9	299.4	306.9
162.5°	262.2	261.8	264.0	267.5	271.4	276.0	281.5	287.1	291.6	297.3	303.5
165°	267.7	267.1	268.2	271.5	274.1	277.4	282.2	286.0	289.2	292.9	297.7
167.5°	272.2	271.5	272.5	274.6	276.5	278.5	282.1	285.2	286.7	289.2	292.2
170°	275.2	274.1	274.7	276.3	277.4	279.0	281.6	284.4	285.4	287.0	289.2
172.5°	276.9	276.3	276.0	277.6	278.2	279.4	281.3	283.0	283.7	284.5	286.2
175°	279.0	278.4	277.9	279.0	279.0	279.5	280.6	281.6	281.2	281.6	282.2
177.5°	279.9	279.1	278.6	279.5	279.5	279.5	279.9	280.8	279.9	279.5	279.9
180°	279.5	279.5	279.5	279.5	279.5	279.5	279.5	279.5	279.5	279.5	279.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6
2.5°	993.4	994.8	996.1	996.5	995.9	995.4	994.9	994.4
5°	990.4	992.4	994.3	995.0	994.8	994.5	994.1	993.8
7.5°	985.7	988.1	990.3	991.4	991.0	990.7	990.3	990.0
10°	981.6	984.2	986.7	987.9	987.5	987.2	986.9	986.6
12.5°	974.7	977.2	979.8	980.9	980.6	980.2	980.0	979.7
15°	962.1	964.9	967.8	969.1	968.7	968.5	968.1	967.8
17.5°	945.8	948.9	951.9	953.4	953.4	953.4	953.4	953.4
20°	932.9	936.5	940.0	941.8	941.8	941.8	941.8	941.8
22.5°	919.1	922.7	926.1	928.2	928.7	929.3	929.7	930.3
25°	897.5	901.4	905.2	907.6	908.6	909.6	910.5	911.4
27.5°	873.5	878.4	883.4	886.1	886.8	887.5	888.3	888.9
30°	856.8	861.9	867.0	870.1	871.0	871.9	873.0	873.9
32.5°	838.7	844.5	850.5	854.2	856.0	857.7	859.5	861.2
35°	812.9	820.0	827.1	831.7	834.0	836.2	838.5	840.7
37.5°	786.5	794.3	802.1	807.2	809.5	812.0	814.4	816.7
40°	767.8	776.2	784.5	790.1	793.1	795.9	798.8	801.7
42.5°	749.7	758.8	768.0	773.9	776.8	779.8	782.6	785.5
45°	721.9	731.9	741.8	748.4	751.6	754.8	758.0	761.2
47.5°	693.1	703.4	713.9	720.9	724.3	727.9	731.4	735.0
50°	673.3	684.2	695.1	702.4	705.9	709.4	712.9	716.4
52.5°	651.9	663.0	674.2	681.6	685.4	689.3	693.1	696.8
55°	619.7	631.2	642.8	650.6	654.8	659.0	663.2	667.3
57.5°	585.7	598.1	610.6	618.9	623.1	627.4	631.6	635.8
60°	563.2	575.4	587.6	596.0	600.4	604.9	609.4	613.9
62.5°	539.3	552.2	565.2	573.8	578.1	582.3	586.5	590.8
65°	503.0	516.1	529.3	538.0	542.2	546.3	550.5	554.7
67.5°	466.3	479.6	492.9	501.7	506.1	510.4	514.8	519.2
70°	440.7	454.5	468.3	477.1	481.0	484.8	488.7	492.6
72.5°	415.9	429.5	443.0	452.1	456.8	461.4	466.0	470.6
75°	378.6	392.4	406.2	415.2	419.3	423.6	427.7	431.9
77.5°	342.0	355.8	369.6	378.7	383.1	387.7	392.2	396.6
80°	317.3	330.8	344.3	353.3	357.8	362.2	366.7	371.3
82.5°	294.2	307.6	321.1	330.0	334.2	338.5	342.7	346.9
85°	261.0	274.5	287.9	296.9	301.4	305.9	310.4	314.9
87.5°	236.5	249.4	262.7	271.4	275.5	279.6	283.7	287.9
90°	233.6	245.3	259.2	268.2	271.9	275.8	279.7	283.5
92.5°	252.3	258.3	266.3	271.2	274.6	276.7	281.0	284.0
95°	331.3	310.8	300.4	296.6	293.4	292.9	295.2	299.6
97.5°	506.1	458.2	411.9	381.0	359.0	349.6	345.5	344.8
100°	658.9	604.2	542.4	485.1	444.0	424.4	412.4	406.2
102.5°	756.6	753.1	710.9	649.6	604.6	568.7	552.8	543.2
105°	799.7	871.8	889.9	879.6	849.8	820.0	800.4	796.4
107.5°	746.6	848.9	915.6	948.8	956.5	958.2	957.1	950.6
110°	703.8	810.3	889.4	940.4	967.0	980.7	989.1	992.1



TEST NUMBER: P331434-830

CATALOG NUMBER: SA2XXDIP-C1005D530U830-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	663.9	766.6	850.4	907.8	943.5	964.0	976.8	983.2
115°	612.8	705.2	785.2	847.3	888.9	917.2	934.6	943.0
117.5°	571.3	653.5	726.8	785.1	827.3	856.7	874.7	882.0
120°	548.7	624.3	690.3	745.5	786.6	815.4	834.5	843.4
122.5°	529.6	599.4	662.1	712.2	748.9	776.7	793.7	801.2
125°	500.8	564.8	620.8	666.8	700.9	724.2	740.6	747.7
127.5°	472.3	530.4	583.0	625.5	655.5	677.5	691.9	698.2
130°	454.1	508.0	558.2	598.8	627.7	648.6	661.9	668.7
132.5°	436.3	486.5	533.0	571.4	599.8	620.7	633.1	639.6
135°	411.5	453.7	496.0	530.7	556.4	576.7	589.0	593.7
137.5°	390.0	425.6	459.7	489.9	513.2	530.7	541.3	546.7
140°	376.5	407.5	437.3	464.5	483.6	499.5	509.5	514.6
142.5°	366.2	392.2	417.5	440.3	458.3	472.6	481.5	483.8
145°	352.7	372.4	391.0	408.3	422.8	433.6	440.5	443.7
147.5°	342.8	357.0	370.3	382.2	393.6	401.7	406.1	407.8
150°	337.5	349.4	360.7	370.3	378.4	384.8	388.0	388.6
152.5°	332.8	343.8	353.4	361.7	368.1	373.7	376.1	376.2
155°	326.3	334.9	342.9	348.8	354.8	358.5	360.7	359.6
157.5°	318.7	325.8	332.6	337.2	341.4	344.6	345.5	345.5
160°	313.9	319.8	325.7	329.5	333.3	335.9	336.5	336.5
162.5°	309.2	314.2	319.3	322.2	325.9	327.8	328.3	327.9
165°	302.1	305.9	309.6	311.8	313.9	316.0	316.0	315.6
167.5°	295.3	298.2	300.8	302.7	303.7	304.9	304.8	304.2
170°	291.9	293.5	295.7	296.7	297.3	298.9	298.3	297.3
172.5°	288.0	289.2	290.9	291.5	292.1	292.8	292.3	291.6
175°	283.8	284.4	284.9	285.4	285.4	286.0	285.4	284.4
177.5°	280.8	280.8	281.3	281.3	281.3	281.3	280.8	279.9
180°	279.5	279.5	279.5	279.5	279.5	279.5	279.5	279.5

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