

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: P331298-840

Luminaire Tested: **SA2XXDIP-C485D530U840-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331298-840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C485D530U840-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 485 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 530 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3896.2 lumens
Efficiency: N/A
Efficacy: 118.8 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

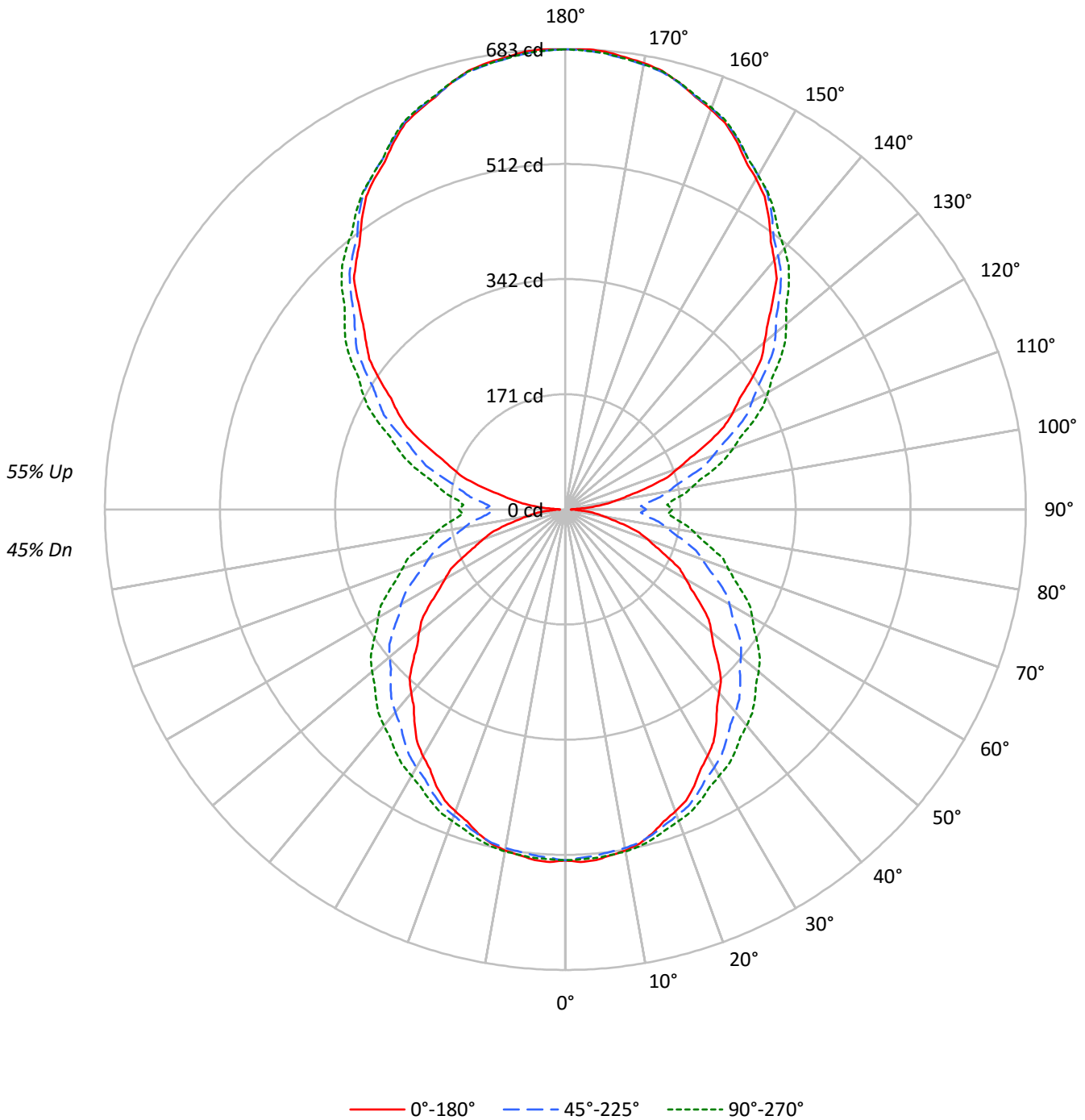
Input Watts (W): 32.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P331298-840

CATALOG NUMBER: SA2XXDIP-C485D530U840-4F0-1E-UDD-D1

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	0		
RCR																				
0	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	45		
1	95	90	86	82	87	83	79	76	69	66	63	56	54	52	44	42	41	35		
2	86	78	72	66	79	72	66	61	59	55	51	48	45	42	38	35	33	29		
3	78	68	60	54	71	63	56	50	52	47	43	42	38	35	33	30	28	24		
4	71	60	52	45	65	55	48	42	46	40	36	37	33	30	29	26	24	20		
5	65	53	45	39	60	49	42	36	41	35	31	33	29	25	26	23	20	17		
6	60	48	39	33	55	44	36	31	37	31	27	30	25	22	24	20	18	15		
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13		
8	51	39	31	25	47	36	29	24	30	24	20	25	20	17	20	16	14	11		
9	48	35	28	23	44	33	26	21	28	22	18	23	18	15	18	15	13	10		
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	14	11	9		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8402	8402	8402
5°	8443	8088	8058
10°	8390	7850	7761
15°	8275	7596	7448
20°	8129	7324	7148
25°	7984	7062	6875
30°	7780	6794	6601
35°	7575	6536	6409
40°	7360	6315	6215
45°	7153	6118	6051
50°	6934	5937	5888
55°	6700	5744	5722
60°	6417	5546	5546
65°	6122	5313	5339
70°	5796	5061	5115
75°	5371	4816	4908
80°	4707	4564	4698
85°	4070	4346	4535



TEST NUMBER: P331298-840

CATALOG NUMBER: SA2XXDIP-C485D530U840-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.3	1.3
10°-20°	141.4	3.6
20°-30°	214.3	5.5
30°-40°	261.0	6.7
40°-50°	280.8	7.2
50°-60°	272.7	7.0
60°-70°	238.1	6.1
70°-80°	183.3	4.7
80°-90°	125.7	3.2
90°-100°	128.0	3.3
100°-110°	196.2	5.0
110°-120°	270.4	6.9
120°-130°	324.7	8.3
130°-140°	348.4	8.9
140°-150°	333.9	8.6
150°-160°	278.7	7.2
160°-170°	184.8	4.7
170°-180°	64.6	1.7
0°-30°	405.0	10.4
0°-40°	666.0	17.1
0°-60°	1219.4	31.3
0°-90°	1766.6	45.3
90°-120°	594.6	15.3
90°-150°	1601.6	41.1
90°-180°	2130.0	54.7
0°-180°	3896.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	520	520	520	520	520	
5°	522	520	515	519	519	49
15°	498	499	499	506	505	140
25°	452	458	464	473	476	208
35°	390	403	417	433	439	244
45°	320	340	367	389	398	247
55°	245	273	311	338	348	219
65°	167	205	249	279	290	166
75°	93	135	183	214	226	98
85°	27	74	122	153	164	29
90°	8	59	120	148	158	7
95°	36	77	124	151	160	39
105°	128	152	192	218	227	135
115°	233	246	278	299	306	231
125°	337	343	364	382	389	301
135°	434	441	449	464	469	336
145°	526	530	534	539	540	329
155°	602	604	605	608	606	277
165°	655	654	654	658	655	185
175°	681	680	678	682	679	65
180°	682	682	682	682	682	



TEST NUMBER: P331298-840

CATALOG NUMBER: SA2XXDIP-C485D530U840-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	520.4	520.4	520.4	520.4	520.4	520.4	520.4	520.4	520.4	520.4	520.4
2.5°	523.4	523.0	522.6	522.2	521.8	521.1	520.2	519.3	518.4	517.4	518.1
5°	521.9	521.4	520.9	520.4	519.9	519.2	518.2	517.2	516.1	515.1	516.1
7.5°	517.3	516.8	516.5	516.2	515.9	515.3	514.5	513.8	513.0	512.2	513.4
10°	513.6	513.3	512.9	512.6	512.3	511.9	511.4	510.9	510.4	509.9	511.2
12.5°	507.6	507.7	507.8	507.8	507.9	507.7	507.4	507.0	506.5	506.2	507.6
15°	497.8	498.1	498.5	498.8	499.1	499.3	499.3	499.3	499.3	499.3	500.8
17.5°	485.1	485.8	486.6	487.3	488.0	488.6	489.1	489.6	490.2	490.7	492.2
20°	476.7	477.5	478.4	479.2	480.0	480.8	481.4	482.1	482.8	483.4	485.2
22.5°	467.6	468.6	469.6	470.5	471.5	472.4	473.4	474.3	475.2	476.3	478.1
25°	452.5	453.7	454.8	456.1	457.2	458.6	460.1	461.6	463.1	464.5	466.6
27.5°	434.4	436.4	438.3	440.2	442.0	443.9	445.7	447.5	449.2	451.0	453.5
30°	422.3	424.5	426.7	428.9	431.1	433.2	435.5	437.6	439.8	441.9	444.6
32.5°	409.1	411.5	413.9	416.5	418.9	421.4	423.9	426.6	429.1	431.7	434.7
35°	389.9	392.7	395.7	398.5	401.3	404.3	407.5	410.7	413.8	417.1	420.7
37.5°	369.1	372.4	375.7	379.0	382.2	386.0	390.1	394.2	398.3	402.4	406.6
40°	355.3	358.9	362.6	366.3	370.0	374.1	378.6	383.1	387.7	392.2	396.6
42.5°	341.9	345.7	349.3	353.0	356.7	361.1	366.4	371.5	376.8	381.9	386.7
45°	319.8	324.3	328.8	333.4	337.9	343.1	348.9	354.8	360.7	366.6	371.7
47.5°	297.9	302.9	307.8	312.7	317.6	323.6	330.4	337.3	344.2	351.0	356.5
50°	282.9	288.0	293.3	298.4	303.6	309.9	317.5	325.1	332.6	340.1	345.9
52.5°	268.3	273.8	279.2	284.8	290.2	296.9	304.9	312.8	320.7	328.7	334.5
55°	245.1	251.2	257.2	263.2	269.2	276.6	285.4	294.1	302.8	311.4	317.5
57.5°	222.2	229.0	235.8	242.6	249.4	257.2	266.1	275.0	283.9	292.8	299.3
60°	205.9	213.1	220.4	227.5	234.7	243.1	252.7	262.2	271.8	281.3	287.7
62.5°	191.4	198.8	206.4	213.9	221.4	229.8	239.3	248.9	258.5	268.0	274.8
65°	167.4	175.6	183.9	192.1	200.3	209.3	219.2	229.1	239.0	248.9	255.8
67.5°	145.4	154.0	162.6	171.2	179.8	189.0	199.2	209.3	219.4	229.5	236.5
70°	129.8	138.5	147.1	155.8	164.6	174.1	184.5	194.9	205.3	215.7	222.9
72.5°	115.2	124.2	133.2	142.2	151.2	161.0	171.5	182.0	192.5	203.0	210.2
75°	92.8	102.2	111.5	120.9	130.3	140.4	151.1	161.8	172.6	183.3	190.5
77.5°	71.1	80.9	90.7	100.5	110.4	120.7	131.6	142.5	153.4	164.3	171.5
80°	56.6	66.8	77.1	87.3	97.5	108.1	119.0	129.8	140.7	151.6	158.6
82.5°	44.5	54.6	64.6	74.7	84.8	95.4	106.4	117.4	128.5	139.6	146.5
85°	27.2	37.6	48.0	58.4	68.7	79.3	90.0	100.7	111.5	122.2	129.3
87.5°	14.9	25.1	35.4	45.7	56.0	66.9	78.2	89.5	100.8	112.0	118.9
90°	8.1	19.4	30.6	41.9	53.1	65.5	79.1	92.6	106.1	119.7	126.1
92.5°	17.2	27.4	37.6	47.8	57.9	68.5	79.5	90.5	101.5	112.4	119.1
95°	36.0	45.1	54.3	63.4	72.6	82.3	92.6	103.0	113.3	123.6	130.0
97.5°	60.0	68.2	76.2	84.4	92.5	101.7	111.8	121.9	132.1	142.2	148.5
100°	78.4	85.6	92.9	100.1	107.3	115.8	125.6	135.3	145.1	154.9	161.1
102.5°	97.1	103.6	110.2	116.6	123.1	131.2	140.8	150.4	160.0	169.6	175.7
105°	127.5	132.8	138.0	143.3	148.6	155.6	164.6	173.6	182.6	191.6	197.6
107.5°	159.0	163.4	167.9	172.4	176.8	183.2	191.6	199.9	208.2	216.6	222.3
110°	178.6	182.8	186.9	191.1	195.1	201.3	209.5	217.7	225.9	234.2	239.5



TEST NUMBER: P331298-840

CATALOG NUMBER: SA2XXDIP-C485D530U840-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	200.8	204.4	207.9	211.6	215.1	220.8	228.4	236.2	243.9	251.6	256.6
115°	233.4	236.0	238.6	241.2	243.8	248.7	256.0	263.4	270.6	277.9	282.8
117.5°	265.1	267.3	269.5	271.8	274.0	278.2	284.5	290.7	297.0	303.3	307.9
120°	286.7	288.4	290.1	291.9	293.6	297.2	302.9	308.6	314.3	319.9	324.6
122.5°	306.6	308.0	309.5	311.0	312.6	316.1	321.6	327.3	332.9	338.4	342.6
125°	336.7	337.8	339.0	340.1	341.2	344.4	349.3	354.3	359.3	364.3	368.4
127.5°	366.7	368.0	369.3	370.6	371.9	374.5	378.3	382.2	386.1	389.9	393.6
130°	385.6	387.1	388.6	390.1	391.6	393.9	397.3	400.5	403.7	407.1	410.8
132.5°	406.8	408.0	409.2	410.4	411.5	413.5	416.3	419.1	421.8	424.6	427.9
135°	434.3	435.8	437.2	438.6	440.0	441.7	443.6	445.6	447.5	449.4	452.8
137.5°	464.2	465.3	466.5	467.6	468.7	469.8	470.9	471.9	473.0	474.0	477.1
140°	482.2	483.1	484.1	485.1	486.1	487.1	488.1	489.1	490.0	491.0	493.7
142.5°	500.6	501.6	502.6	503.5	504.5	505.3	505.8	506.2	506.8	507.3	509.6
145°	526.3	527.3	528.2	529.1	530.0	530.8	531.5	532.3	533.1	533.8	534.9
147.5°	550.0	551.0	552.1	553.2	554.2	555.0	555.5	556.0	556.5	557.1	557.5
150°	566.1	566.8	567.6	568.4	569.2	569.8	570.3	570.8	571.3	571.9	572.2
152.5°	580.4	581.2	581.9	582.7	583.4	584.1	584.7	585.3	585.9	586.6	587.0
155°	601.8	602.2	602.6	602.9	603.3	603.7	604.1	604.5	604.8	605.2	605.9
157.5°	620.1	620.4	620.6	620.9	621.2	621.4	621.6	621.9	622.1	622.3	623.2
160°	631.2	631.4	631.7	631.9	632.2	632.4	632.5	632.6	632.8	632.9	633.7
162.5°	641.3	641.4	641.4	641.5	641.5	641.6	641.7	641.9	642.0	642.1	643.0
165°	654.8	654.6	654.5	654.4	654.3	654.2	654.2	654.2	654.2	654.2	655.1
167.5°	666.0	665.7	665.3	664.9	664.5	664.3	664.3	664.3	664.2	664.2	665.1
170°	672.1	671.7	671.3	670.9	670.6	670.2	670.1	669.9	669.8	669.7	670.7
172.5°	676.2	675.8	675.4	675.0	674.7	674.4	674.3	674.2	674.0	673.9	674.8
175°	681.3	680.9	680.4	680.1	679.7	679.4	679.1	678.9	678.6	678.3	679.2
177.5°	683.4	683.0	682.7	682.4	682.1	681.9	681.7	681.5	681.3	681.1	681.7
180°	682.4	682.4	682.4	682.4	682.4	682.4	682.4	682.4	682.4	682.4	682.4



TEST NUMBER: P331298-840

CATALOG NUMBER: SA2XXDIP-C485D530U840-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	520.4	520.4	520.4	520.4	520.4	520.4	520.4	520.4
2.5°	518.8	519.4	520.1	520.3	520.0	519.8	519.5	519.2
5°	517.2	518.2	519.2	519.6	519.4	519.3	519.1	518.9
7.5°	514.6	515.8	517.1	517.6	517.5	517.3	517.1	516.9
10°	512.5	513.8	515.2	515.8	515.6	515.4	515.3	515.1
12.5°	508.9	510.3	511.6	512.2	512.0	511.8	511.7	511.5
15°	502.3	503.8	505.3	505.9	505.8	505.6	505.4	505.3
17.5°	493.8	495.4	497.0	497.8	497.8	497.8	497.8	497.8
20°	487.2	489.0	490.8	491.7	491.7	491.7	491.7	491.7
22.5°	479.9	481.7	483.6	484.6	484.9	485.1	485.4	485.7
25°	468.6	470.6	472.6	473.9	474.4	474.9	475.4	475.9
27.5°	456.2	458.7	461.2	462.6	463.0	463.4	463.7	464.1
30°	447.4	450.0	452.7	454.2	454.7	455.2	455.8	456.3
32.5°	437.9	440.9	444.0	446.1	447.0	447.9	448.8	449.7
35°	424.4	428.2	431.8	434.2	435.5	436.6	437.8	439.0
37.5°	410.6	414.8	418.8	421.4	422.7	423.9	425.2	426.5
40°	400.9	405.3	409.6	412.5	414.0	415.6	417.1	418.6
42.5°	391.4	396.2	400.9	404.1	405.6	407.1	408.6	410.1
45°	377.0	382.1	387.3	390.7	392.4	394.2	395.8	397.5
47.5°	361.8	367.3	372.7	376.4	378.2	380.0	381.9	383.7
50°	351.5	357.2	362.9	366.7	368.6	370.4	372.2	374.1
52.5°	340.3	346.2	352.0	355.9	357.9	359.9	361.8	363.9
55°	323.6	329.6	335.6	339.7	341.9	344.1	346.3	348.4
57.5°	305.8	312.3	318.8	323.2	325.4	327.6	329.8	332.0
60°	294.1	300.4	306.8	311.1	313.5	315.9	318.2	320.5
62.5°	281.6	288.3	295.1	299.6	301.8	304.1	306.3	308.5
65°	262.7	269.5	276.4	280.9	283.1	285.3	287.4	289.6
67.5°	243.5	250.3	257.3	262.0	264.2	266.5	268.8	271.0
70°	230.1	237.3	244.5	249.1	251.2	253.2	255.2	257.2
72.5°	217.2	224.3	231.4	236.1	238.4	240.9	243.3	245.7
75°	197.7	204.9	212.1	216.8	218.9	221.2	223.3	225.5
77.5°	178.6	185.8	193.0	197.7	200.1	202.4	204.8	207.1
80°	165.7	172.7	179.8	184.4	186.8	189.1	191.5	193.8
82.5°	153.6	160.7	167.6	172.3	174.5	176.7	178.9	181.2
85°	136.2	143.3	150.4	155.0	157.3	159.8	162.1	164.4
87.5°	125.6	132.4	139.2	143.7	145.8	148.0	150.2	152.4
90°	132.6	139.1	145.5	149.8	152.0	154.1	156.2	158.3
92.5°	125.7	132.3	139.0	143.3	145.3	147.3	149.4	151.4
95°	136.3	142.7	149.1	153.1	154.9	156.6	158.3	160.2
97.5°	154.6	160.8	167.0	171.1	173.1	175.0	176.9	178.9
100°	167.3	173.5	179.7	183.7	185.4	187.1	188.8	190.6
102.5°	181.9	188.0	194.2	198.1	199.9	201.6	203.3	205.0
105°	203.8	210.0	216.0	220.0	221.9	223.7	225.6	227.4
107.5°	228.0	233.8	239.5	243.0	244.3	245.5	246.8	248.0
110°	244.9	250.2	255.6	259.0	260.4	262.0	263.4	264.9



TEST NUMBER: P331298-840

CATALOG NUMBER: SA2XXDIP-C485D530U840-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	261.7	266.7	271.9	275.1	276.7	278.2	279.8	281.3
115°	287.7	292.6	297.5	300.6	302.2	303.6	305.1	306.5
117.5°	312.6	317.2	321.8	324.9	326.2	327.5	328.8	330.2
120°	329.3	334.0	338.7	341.7	343.3	344.7	346.2	347.6
122.5°	346.9	351.1	355.5	358.2	359.5	360.8	362.0	363.3
125°	372.5	376.7	380.8	383.5	385.0	386.4	387.7	389.1
127.5°	397.3	401.0	404.8	407.1	408.2	409.2	410.3	411.3
130°	414.5	418.3	422.1	424.4	425.3	426.1	426.9	427.7
132.5°	431.2	434.5	437.9	440.0	441.0	441.9	442.8	443.7
135°	456.2	459.6	463.0	465.1	466.2	467.1	468.1	469.0
137.5°	480.0	483.0	485.9	487.8	488.4	489.1	489.7	490.3
140°	496.3	499.1	501.7	503.3	503.8	504.3	504.8	505.3
142.5°	511.8	514.0	516.2	517.6	518.0	518.3	518.7	519.1
145°	536.1	537.2	538.4	539.1	539.5	539.8	540.1	540.4
147.5°	558.0	558.4	558.8	559.0	558.9	558.8	558.7	558.6
150°	572.6	573.0	573.4	573.4	573.0	572.6	572.2	571.9
152.5°	587.5	588.0	588.5	588.5	588.0	587.5	587.0	586.6
155°	606.5	607.1	607.8	607.9	607.5	607.1	606.7	606.4
157.5°	624.0	624.9	625.8	625.9	625.3	624.7	624.1	623.4
160°	634.4	635.2	635.9	636.1	635.6	635.1	634.5	634.0
162.5°	643.8	644.7	645.6	645.7	645.1	644.5	643.9	643.3
165°	656.0	656.9	657.7	657.9	657.2	656.6	656.0	655.3
167.5°	666.0	666.9	667.8	667.9	667.2	666.6	665.9	665.2
170°	671.6	672.5	673.3	673.4	672.6	671.9	671.1	670.3
172.5°	675.7	676.6	677.4	677.5	676.8	676.0	675.2	674.5
175°	680.1	681.1	682.0	682.1	681.3	680.4	679.7	678.9
177.5°	682.3	682.9	683.5	683.5	682.9	682.3	681.7	681.1
180°	682.4	682.4	682.4	682.4	682.4	682.4	682.4	682.4

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