

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: P332548

Luminaire Tested: **SA4XXDIP-C575D590U835-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332548
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXDIP-C575D590U835-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4417.0 lumens
Efficiency: N/A
Efficacy: 134.7 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: General Diffuse

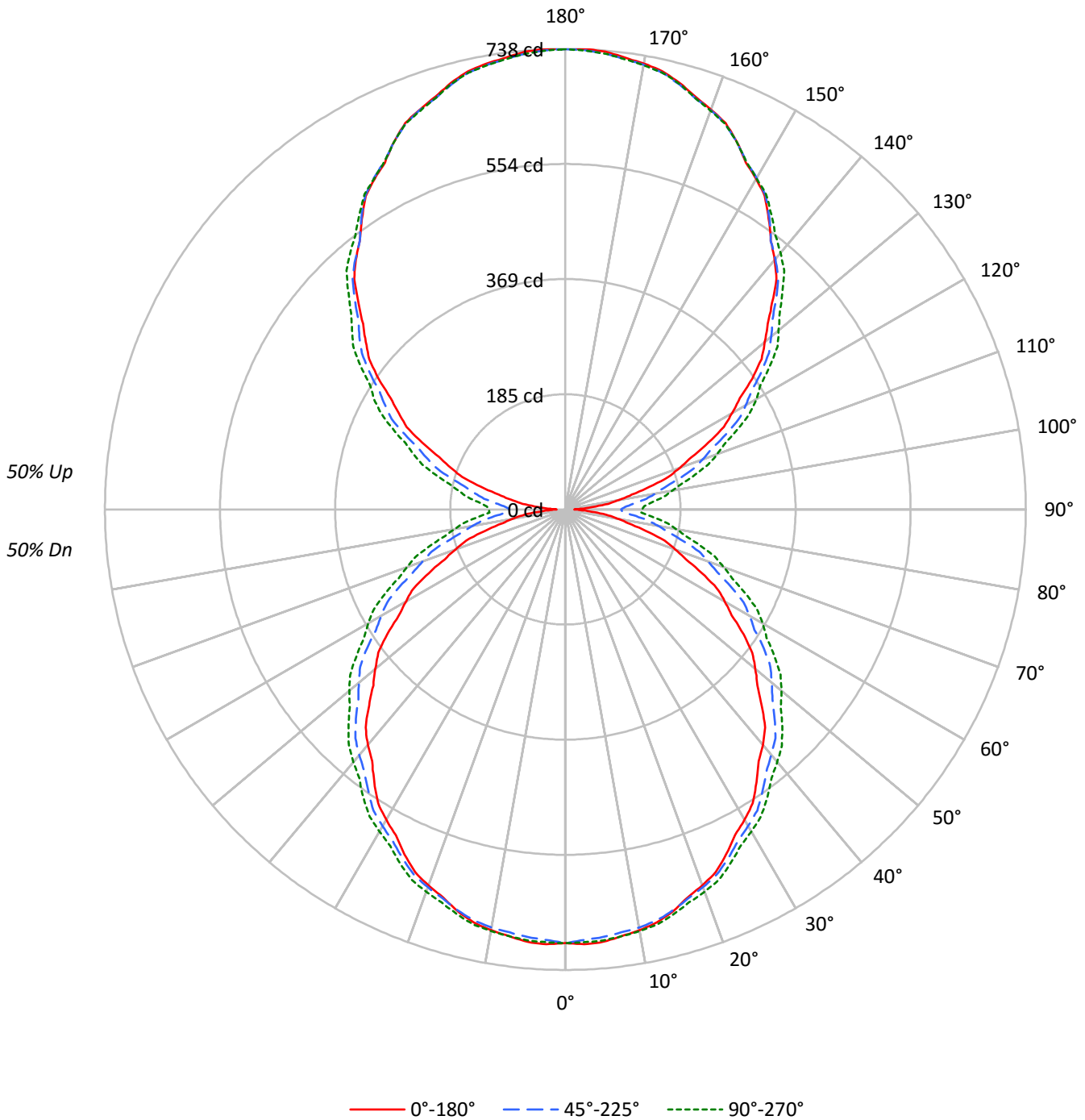
Input Watts (W): 32.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	97	92	88	84	89	85	81	78	71	69	66	59	57	55	48	46	45	40
2	88	80	73	68	80	74	68	63	62	58	54	51	48	45	41	39	37	32
3	80	70	62	56	73	64	58	52	54	49	45	45	41	38	36	34	31	27
4	73	61	53	47	67	57	49	44	48	42	38	40	36	32	32	29	27	23
5	67	55	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	20
6	61	49	40	34	56	45	38	32	38	33	28	32	28	24	26	23	20	17
7	57	44	36	30	52	41	33	28	35	29	25	29	25	21	24	20	18	15
8	52	40	32	26	48	37	30	25	32	26	22	27	22	19	22	18	16	13
9	49	36	29	23	45	34	27	22	29	23	19	24	20	17	20	17	14	12
10	46	33	26	21	42	31	24	20	27	21	17	23	18	15	19	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5610	5610	5610
5°	5628	5483	5498
10°	5593	5393	5388
15°	5543	5289	5260
20°	5467	5175	5135
25°	5382	5046	4997
30°	5290	4919	4856
35°	5185	4787	4732
40°	5102	4663	4603
45°	4978	4549	4492
50°	4873	4416	4375
55°	4765	4291	4237
60°	4596	4132	4112
65°	4410	3962	3958
70°	4186	3768	3778
75°	3872	3553	3616
80°	3526	3347	3457
85°	3082	3163	3364



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.8	1.5
10°-20°	188.5	4.3
20°-30°	285.1	6.5
30°-40°	344.9	7.8
40°-50°	364.7	8.3
50°-60°	343.2	7.8
60°-70°	284.7	6.4
70°-80°	200.0	4.5
80°-90°	115.3	2.6
90°-100°	115.8	2.6
100°-110°	193.8	4.4
110°-120°	277.9	6.3
120°-130°	341.3	7.7
130°-140°	370.3	8.4
140°-150°	357.5	8.1
150°-160°	299.3	6.8
160°-170°	199.1	4.5
170°-180°	69.7	1.6
0°-30°	539.4	12.2
0°-40°	884.4	20.0
0°-60°	1592.2	36.0
0°-90°	2192.2	49.6
90°-120°	587.5	13.3
90°-150°	1656.6	37.5
90°-180°	2225.0	50.4
0°-180°	4417.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	695	695	695	695	695	
5°	696	693	688	694	693	66
15°	667	668	665	672	672	188
25°	610	615	617	625	626	281
35°	534	543	551	561	564	334
45°	445	460	475	487	492	344
55°	349	365	388	403	408	311
65°	241	266	293	311	318	239
75°	134	163	195	216	224	142
85°	41	74	109	131	140	44
90°	14	52	90	115	123	10
95°	44	75	111	133	141	46
105°	140	157	187	208	216	149
115°	253	261	284	300	306	250
125°	365	366	383	396	401	326
135°	469	472	478	488	492	363
145°	568	570	570	574	576	356
155°	650	650	650	652	650	299
165°	708	706	705	708	706	199
175°	736	734	733	736	733	70
180°	738	738	738	738	738	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9
2.5°	697.4	697.0	696.6	696.1	695.7	695.0	693.9	692.8	691.6	690.5	691.5
5°	695.7	695.2	694.6	694.1	693.6	692.7	691.5	690.3	689.1	687.9	689.3
7.5°	689.8	689.4	689.1	688.8	688.5	687.9	686.9	685.9	684.8	683.8	685.4
10°	684.8	684.6	684.4	684.3	684.1	683.6	682.7	681.8	681.0	680.1	681.7
12.5°	677.9	677.9	677.9	677.8	677.8	677.5	676.9	676.3	675.7	675.1	676.5
15°	666.9	667.1	667.2	667.4	667.6	667.4	666.9	666.4	665.8	665.3	666.9
17.5°	651.8	652.3	652.8	653.3	653.9	654.1	654.0	653.9	653.8	653.7	655.2
20°	641.2	641.7	642.2	642.8	643.3	643.6	643.8	644.0	644.1	644.3	646.0
22.5°	629.4	630.0	630.7	631.3	632.0	632.5	632.8	633.1	633.4	633.7	635.5
25°	610.1	611.1	612.2	613.2	614.2	615.0	615.5	616.0	616.6	617.1	619.0
27.5°	588.6	590.1	591.6	593.2	594.7	595.8	596.6	597.4	598.2	599.0	600.8
30°	574.3	575.7	577.0	578.4	579.8	581.1	582.3	583.5	584.7	586.0	587.9
32.5°	558.7	560.4	562.0	563.7	565.4	566.9	568.2	569.6	570.9	572.3	574.4
35°	533.8	535.9	538.0	540.0	542.1	544.0	545.7	547.5	549.2	550.9	553.4
37.5°	508.8	511.1	513.5	515.9	518.3	520.6	522.7	524.9	527.0	529.1	531.6
40°	492.6	494.8	497.1	499.3	501.6	503.9	506.3	508.7	511.2	513.6	516.2
42.5°	473.9	476.4	478.9	481.5	484.0	486.7	489.5	492.3	495.2	498.0	500.9
45°	445.1	448.4	451.7	455.0	458.2	461.5	464.8	468.1	471.4	474.7	477.6
47.5°	417.6	420.9	424.3	427.7	431.1	434.7	438.5	442.3	446.1	449.9	453.0
50°	397.6	401.4	405.2	409.1	412.9	416.7	420.5	424.3	428.1	431.9	435.3
52.5°	377.7	381.5	385.3	389.1	392.9	397.0	401.4	405.7	410.1	414.4	417.9
55°	348.6	352.2	355.9	359.5	363.1	367.5	372.7	377.9	383.1	388.3	391.8
57.5°	316.1	320.6	325.1	329.6	334.1	338.9	344.0	349.2	354.4	359.5	363.6
60°	294.9	299.4	303.9	308.4	312.9	318.0	323.7	329.4	335.1	340.8	344.8
62.5°	274.4	279.3	284.2	289.1	294.0	299.3	305.0	310.7	316.5	322.2	326.1
65°	241.2	246.8	252.3	257.8	263.4	269.1	274.9	280.8	286.7	292.6	296.9
67.5°	209.3	215.2	221.1	227.0	232.8	238.9	245.2	251.5	257.8	264.1	268.5
70°	187.5	193.4	199.3	205.2	211.1	217.3	223.8	230.4	237.0	243.6	248.2
72.5°	166.4	172.4	178.4	184.4	190.4	196.9	203.9	210.9	217.9	224.9	229.4
75°	133.8	140.2	146.6	153.0	159.4	166.3	173.5	180.8	188.1	195.3	200.2
77.5°	103.5	110.3	117.1	123.8	130.6	137.8	145.4	153.0	160.6	168.2	173.1
80°	84.8	91.7	98.7	105.6	112.5	119.7	127.4	135.0	142.6	150.2	155.4
82.5°	66.1	73.3	80.5	87.7	94.9	102.3	109.9	117.5	125.1	132.8	138.1
85°	41.2	48.5	55.8	63.0	70.3	77.8	85.6	93.4	101.2	108.9	114.1
87.5°	23.4	30.7	38.0	45.4	52.7	60.3	68.0	75.8	83.6	91.4	96.5
90°	14.2	22.5	30.8	39.1	47.4	55.8	64.2	72.7	81.1	89.6	95.4
92.5°	24.0	31.9	39.7	47.5	55.3	63.3	71.5	79.6	87.7	95.9	101.2
95°	44.3	51.2	58.0	64.9	71.7	79.1	87.1	95.1	103.1	111.0	116.1
97.5°	69.0	74.8	80.6	86.4	92.2	99.2	107.3	115.3	123.4	131.4	136.4
100°	88.4	93.4	98.4	103.4	108.4	114.9	122.7	130.6	138.5	146.4	151.3
102.5°	109.4	113.5	117.7	121.8	126.0	131.9	139.5	147.2	154.8	162.5	167.3
105°	139.9	143.5	147.1	150.7	154.2	159.5	166.4	173.3	180.2	187.1	191.8
107.5°	173.4	176.4	179.4	182.4	185.3	189.9	196.0	202.2	208.3	214.4	219.0
110°	195.6	198.3	200.9	203.6	206.3	210.6	216.5	222.4	228.4	234.3	238.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	218.7	220.9	223.1	225.3	227.5	231.3	236.9	242.4	248.0	253.5	257.3
115°	253.3	254.9	256.5	258.0	259.6	263.0	268.3	273.5	278.8	284.1	287.8
117.5°	286.7	287.8	288.8	289.8	290.9	293.9	298.8	303.8	308.8	313.8	316.9
120°	308.5	309.5	310.5	311.5	312.6	315.4	320.0	324.7	329.3	333.9	336.8
122.5°	331.7	332.0	332.3	332.6	333.0	335.4	339.9	344.5	349.1	353.6	356.7
125°	365.3	365.1	364.9	364.8	364.6	366.6	370.8	375.0	379.2	383.4	386.4
127.5°	396.3	396.5	396.7	396.9	397.1	398.8	401.9	405.0	408.1	411.2	414.1
130°	417.5	417.8	418.0	418.2	418.4	419.9	422.6	425.4	428.2	430.9	433.8
132.5°	439.9	440.0	440.1	440.2	440.3	441.4	443.6	445.7	447.8	449.9	452.6
135°	468.7	469.4	470.2	471.0	471.7	472.7	473.9	475.1	476.3	477.5	480.1
137.5°	500.8	501.0	501.2	501.4	501.6	502.1	502.8	503.6	504.4	505.2	507.4
140°	522.3	522.4	522.4	522.5	522.6	522.7	522.9	523.1	523.3	523.4	525.5
142.5°	541.3	541.5	541.7	541.9	542.2	542.2	542.0	541.8	541.6	541.3	543.3
145°	568.3	568.6	568.9	569.3	569.6	569.8	570.0	570.1	570.2	570.3	571.3
147.5°	595.2	595.6	596.1	596.5	596.9	597.1	597.0	596.9	596.8	596.7	596.7
150°	611.6	612.0	612.3	612.6	613.0	613.1	613.1	613.1	613.1	613.1	613.1
152.5°	626.5	626.8	627.1	627.3	627.6	627.8	627.9	628.0	628.1	628.2	628.5
155°	650.2	650.2	650.2	650.2	650.2	650.1	650.0	649.9	649.8	649.6	650.1
157.5°	670.3	670.0	669.8	669.6	669.4	669.2	669.2	669.2	669.2	669.1	669.5
160°	682.1	682.0	681.9	681.8	681.6	681.5	681.4	681.3	681.1	681.0	681.4
162.5°	693.1	692.8	692.4	692.1	691.8	691.5	691.4	691.3	691.2	691.0	691.7
165°	707.8	707.4	707.0	706.7	706.3	706.0	705.7	705.5	705.2	705.0	705.7
167.5°	719.1	718.6	718.0	717.5	717.0	716.7	716.7	716.8	716.8	716.8	717.6
170°	725.5	724.9	724.2	723.6	722.9	722.7	722.8	722.9	723.1	723.2	724.0
172.5°	730.0	729.5	729.0	728.5	727.9	727.7	727.7	727.7	727.7	727.8	728.6
175°	736.3	735.7	735.1	734.4	733.8	733.4	733.3	733.2	733.0	732.9	733.8
177.5°	738.4	737.9	737.4	736.9	736.3	736.1	736.1	736.1	736.1	736.1	736.8
180°	737.5	737.5	737.5	737.5	737.5	737.5	737.5	737.5	737.5	737.5	737.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9
2.5°	692.5	693.4	694.4	694.8	694.7	694.5	694.4	694.3
5°	690.7	692.0	693.4	694.0	693.9	693.7	693.5	693.3
7.5°	687.0	688.5	690.1	690.8	690.6	690.4	690.2	690.1
10°	683.2	684.8	686.3	687.0	686.9	686.7	686.5	686.3
12.5°	678.0	679.4	680.8	681.5	681.5	681.4	681.4	681.4
15°	668.4	670.0	671.5	672.2	672.1	671.9	671.7	671.5
17.5°	656.8	658.4	660.0	660.7	660.6	660.5	660.3	660.2
20°	647.8	649.5	651.2	652.1	652.1	652.1	652.1	652.1
22.5°	637.2	638.9	640.6	641.7	641.9	642.2	642.5	642.8
25°	620.9	622.8	624.7	625.7	625.9	626.1	626.2	626.4
27.5°	602.6	604.3	606.1	607.1	607.3	607.5	607.7	607.9
30°	589.8	591.7	593.6	594.7	595.0	595.4	595.7	596.1
32.5°	576.6	578.8	581.0	582.2	582.6	582.9	583.3	583.6
35°	555.8	558.2	560.6	562.1	562.6	563.1	563.6	564.2
37.5°	534.1	536.5	539.0	540.5	541.0	541.6	542.1	542.7
40°	518.8	521.4	524.0	525.6	526.3	527.0	527.7	528.4
42.5°	503.8	506.6	509.5	511.2	511.8	512.3	512.9	513.4
45°	480.6	483.5	486.4	488.3	489.2	490.1	490.9	491.8
47.5°	456.0	459.1	462.1	464.1	465.2	466.2	467.3	468.3
50°	438.8	442.3	445.7	448.0	449.0	450.0	451.1	452.1
52.5°	421.4	424.8	428.3	430.5	431.6	432.6	433.6	434.7
55°	395.2	398.7	402.1	404.4	405.4	406.5	407.5	408.5
57.5°	367.7	371.9	376.0	378.5	379.5	380.4	381.4	382.4
60°	348.8	352.8	356.7	359.4	360.8	362.2	363.6	365.0
62.5°	330.1	334.1	338.1	340.7	342.1	343.5	344.9	346.3
65°	301.2	305.6	309.9	312.7	314.1	315.5	316.9	318.3
67.5°	272.9	277.3	281.7	284.5	285.9	287.2	288.6	289.9
70°	252.9	257.6	262.2	265.2	266.4	267.6	268.8	270.0
72.5°	233.9	238.5	243.0	245.9	247.3	248.6	250.0	251.3
75°	205.0	209.8	214.7	217.9	219.4	221.0	222.6	224.1
77.5°	178.1	183.0	187.9	191.2	192.8	194.5	196.1	197.8
80°	160.6	165.7	170.9	174.2	175.6	177.0	178.4	179.8
82.5°	143.4	148.7	154.1	157.5	159.0	160.5	162.0	163.6
85°	119.3	124.5	129.7	133.2	134.9	136.6	138.3	140.1
87.5°	101.7	106.9	112.0	115.4	117.0	118.6	120.1	121.7
90°	101.1	106.9	112.7	116.4	118.0	119.7	121.3	122.9
92.5°	106.6	111.9	117.2	120.7	122.2	123.7	125.3	126.8
95°	121.1	126.2	131.2	134.5	136.1	137.7	139.2	140.8
97.5°	141.4	146.4	151.4	154.6	156.1	157.6	159.1	160.6
100°	156.2	161.2	166.1	169.2	170.4	171.6	172.8	174.0
102.5°	172.2	177.1	182.0	185.2	186.6	188.1	189.5	191.0
105°	196.5	201.2	205.9	209.1	210.9	212.7	214.4	216.2
107.5°	223.6	228.2	232.8	235.8	237.0	238.2	239.4	240.6
110°	241.7	245.5	249.2	251.9	253.7	255.4	257.2	259.0



TEST NUMBER: P332548

CATALOG NUMBER: SA4XXDIP-C575D590U835-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	261.1	264.9	268.7	271.3	272.8	274.2	275.7	277.1
115°	291.5	295.1	298.8	301.2	302.3	303.4	304.4	305.5
117.5°	320.1	323.3	326.4	328.6	329.7	330.8	332.0	333.1
120°	339.6	342.4	345.2	347.5	349.1	350.7	352.4	354.0
122.5°	359.7	362.7	365.7	367.6	368.4	369.2	370.0	370.8
125°	389.5	392.5	395.5	397.4	398.2	399.0	399.8	400.6
127.5°	416.9	419.8	422.7	424.6	425.6	426.5	427.5	428.5
130°	436.7	439.5	442.4	444.1	444.6	445.1	445.7	446.2
132.5°	455.3	458.0	460.8	462.5	463.4	464.2	465.1	465.9
135°	482.6	485.1	487.6	489.2	489.8	490.5	491.2	491.8
137.5°	509.6	511.8	514.0	515.6	516.5	517.4	518.4	519.3
140°	527.7	529.8	531.9	533.3	534.1	534.8	535.6	536.3
142.5°	545.2	547.2	549.1	550.5	551.2	551.9	552.6	553.3
145°	572.2	573.1	574.0	574.6	574.9	575.2	575.5	575.8
147.5°	596.8	596.8	596.8	597.1	597.5	597.9	598.4	598.8
150°	613.1	613.1	613.1	613.1	612.9	612.8	612.7	612.6
152.5°	628.8	629.1	629.4	629.4	629.1	628.7	628.4	628.1
155°	650.6	651.1	651.7	651.7	651.1	650.6	650.1	649.6
157.5°	669.9	670.3	670.7	670.6	670.2	669.8	669.3	668.9
160°	681.8	682.1	682.5	682.4	681.8	681.1	680.5	679.9
162.5°	692.4	693.1	693.8	693.8	693.2	692.5	691.9	691.3
165°	706.5	707.2	708.0	708.1	707.6	707.1	706.6	706.1
167.5°	718.3	719.1	719.9	719.8	719.1	718.3	717.5	716.7
170°	724.7	725.5	726.2	726.2	725.3	724.4	723.5	722.6
172.5°	729.5	730.4	731.2	731.2	730.3	729.4	728.5	727.7
175°	734.7	735.6	736.4	736.4	735.6	734.7	733.8	732.9
177.5°	737.5	738.2	738.9	738.9	738.1	737.3	736.4	735.6
180°	737.5	737.5	737.5	737.5	737.5	737.5	737.5	737.5

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