

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: P332539-830

Luminaire Tested: **SA4XXDIP-C575D365U830-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332539-830
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-C575D365U830-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3428.8 lumens
Efficiency: N/A
Efficacy: 124.7 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: Semi-Direct

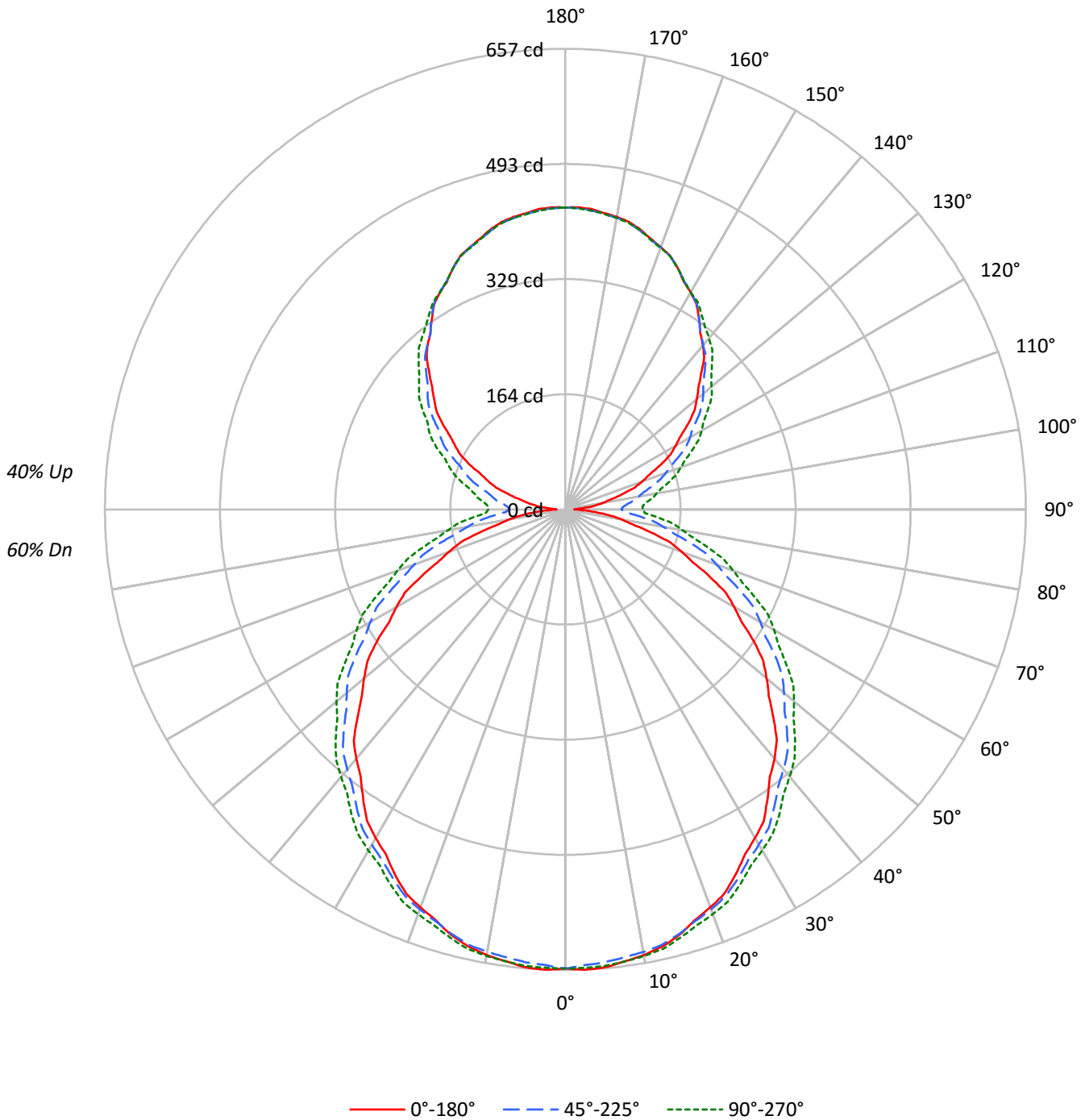
Input Watts (W): 27.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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									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	50	30	10	50	30	10	50	30	10	0							
RCR																																					
0	110	110	110	110	102	102	102	102	89	89	89	77	77	77	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	60							
1	99	94	90	86	92	88	84	80	76	73	71	66	64	62	56	54	53	56	54	53	56	54	53	56	54	53	56	54	53	48							
2	90	81	75	69	83	76	70	65	66	62	58	57	53	50	49	46	44	49	46	44	49	46	44	49	46	44	49	46	44	39							
3	81	71	63	57	76	67	59	54	58	52	48	50	46	42	43	39	37	43	39	37	43	39	37	43	39	37	43	39	37	33							
4	74	63	54	48	69	59	51	45	51	45	40	44	40	36	38	34	31	38	34	31	38	34	31	38	34	31	38	34	31	28							
5	68	56	47	41	63	52	44	39	46	39	35	40	35	31	34	30	27	34	30	27	34	30	27	34	30	27	34	30	27	24							
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	24	31	27	24	31	27	24	31	27	24	31	27	24	21							
7	58	45	37	31	54	42	35	29	37	31	26	32	27	24	28	24	21	28	24	21	28	24	21	28	24	21	28	24	21	18							
8	54	41	33	27	50	38	31	26	34	28	23	30	25	21	26	22	19	26	22	19	26	22	19	26	22	19	26	22	19	16							
9	50	37	29	24	47	35	28	23	31	25	21	27	22	19	24	20	17	24	20	17	24	20	17	24	20	17	24	20	17	15							
10	47	34	27	22	44	32	25	21	29	23	19	25	20	17	22	18	15	22	18	15	22	18	15	22	18	15	22	18	15	13							

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5288	5288	5288
5°	5304	5168	5182
10°	5272	5083	5079
15°	5225	4985	4958
20°	5153	4877	4840
25°	5073	4756	4710
30°	4986	4636	4576
35°	4887	4512	4460
40°	4809	4395	4338
45°	4692	4287	4233
50°	4593	4163	4123
55°	4491	4045	3993
60°	4332	3894	3876
65°	4156	3735	3731
70°	3945	3551	3561
75°	3649	3349	3408
80°	3322	3156	3259
85°	2903	2980	3172



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.0	1.8
10°-20°	177.7	5.2
20°-30°	268.7	7.8
30°-40°	325.1	9.5
40°-50°	343.7	10.0
50°-60°	323.5	9.4
60°-70°	268.4	7.8
70°-80°	188.5	5.5
80°-90°	107.9	3.1
90°-100°	91.7	2.7
100°-110°	131.0	3.8
110°-120°	174.3	5.1
120°-130°	206.0	6.0
130°-140°	219.2	6.4
140°-150°	209.4	6.1
150°-160°	174.8	5.1
160°-170°	116.3	3.4
170°-180°	40.7	1.2
0°-30°	508.4	14.8
0°-40°	833.5	24.3
0°-60°	1500.7	43.8
0°-90°	2065.4	60.2
90°-120°	396.9	11.6
90°-150°	1031.5	30.1
90°-180°	1363.0	39.8
0°-180°	3428.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	655	655	655	655	655	
5°	656	653	648	654	654	62
15°	629	629	627	633	633	177
25°	575	579	582	589	590	265
35°	503	512	519	529	532	315
45°	420	433	447	459	464	324
55°	329	344	366	380	385	293
65°	227	251	276	293	300	225
75°	126	153	184	204	211	134
85°	39	70	103	124	132	41
90°	13	46	80	102	110	9
95°	30	57	89	109	116	30
105°	84	100	128	146	154	90
115°	150	157	179	194	200	148
125°	214	215	232	244	249	191
135°	274	276	281	292	296	212
145°	332	333	333	337	339	208
155°	380	380	379	380	379	175
165°	413	412	412	413	412	116
175°	430	428	428	430	428	41
180°	431	431	431	431	431	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
2.5°	657.3	657.0	656.6	656.1	655.7	655.1	654.0	653.0	651.9	650.8	651.8
5°	655.7	655.3	654.7	654.2	653.7	652.9	651.8	650.6	649.5	648.4	649.7
7.5°	650.2	649.8	649.5	649.2	648.9	648.4	647.4	646.5	645.5	644.5	646.0
10°	645.5	645.3	645.1	645.0	644.8	644.3	643.5	642.6	641.9	641.0	642.5
12.5°	638.9	638.9	638.9	638.9	638.9	638.6	638.0	637.4	636.9	636.3	637.6
15°	628.6	628.8	628.9	629.1	629.2	629.1	628.6	628.1	627.5	627.1	628.6
17.5°	614.3	614.8	615.3	615.8	616.3	616.5	616.4	616.3	616.2	616.1	617.6
20°	604.4	604.8	605.3	605.9	606.3	606.6	606.8	607.0	607.1	607.3	608.9
22.5°	593.2	593.8	594.5	595.0	595.7	596.2	596.4	596.7	597.0	597.3	599.0
25°	575.0	576.0	577.0	578.0	578.9	579.7	580.1	580.6	581.2	581.6	583.4
27.5°	554.8	556.2	557.6	559.1	560.5	561.6	562.3	563.1	563.8	564.6	566.3
30°	541.3	542.6	543.8	545.2	546.5	547.7	548.8	550.0	551.1	552.3	554.1
32.5°	526.6	528.2	529.7	531.3	532.9	534.3	535.6	536.9	538.1	539.4	541.4
35°	503.1	505.1	507.1	509.0	511.0	512.7	514.3	516.0	517.6	519.2	521.6
37.5°	479.6	481.7	484.0	486.3	488.5	490.7	492.7	494.7	496.7	498.7	501.1
40°	464.3	466.4	468.5	470.6	472.8	474.9	477.2	479.5	481.8	484.1	486.5
42.5°	446.7	449.0	451.4	453.8	456.2	458.7	461.4	464.0	466.7	469.4	472.1
45°	419.5	422.6	425.7	428.9	431.9	435.0	438.1	441.2	444.3	447.4	450.2
47.5°	393.6	396.7	399.9	403.1	406.3	409.7	413.3	416.9	420.5	424.0	427.0
50°	374.8	378.3	381.9	385.6	389.2	392.8	396.3	399.9	403.5	407.1	410.3
52.5°	356.0	359.6	363.2	366.7	370.3	374.2	378.3	382.4	386.5	390.6	393.9
55°	328.6	332.0	335.5	338.8	342.2	346.4	351.3	356.2	361.1	366.0	369.3
57.5°	297.9	302.2	306.4	310.7	314.9	319.4	324.2	329.1	334.0	338.8	342.7
60°	278.0	282.2	286.4	290.7	294.9	299.7	305.1	310.5	315.8	321.2	325.0
62.5°	258.6	263.3	267.9	272.5	277.1	282.1	287.5	292.8	298.3	303.7	307.4
65°	227.3	232.6	237.8	243.0	248.3	253.6	259.1	264.7	270.2	275.8	279.8
67.5°	197.3	202.8	208.4	214.0	219.4	225.2	231.1	237.0	243.0	248.9	253.1
70°	176.7	182.3	187.8	193.4	199.0	204.8	210.9	217.2	223.4	229.6	233.9
72.5°	156.8	162.5	168.1	173.8	179.5	185.6	192.2	198.8	205.4	212.0	216.2
75°	126.1	132.1	138.2	144.2	150.2	156.7	163.5	170.4	177.3	184.1	188.7
77.5°	97.6	104.0	110.4	116.7	123.1	129.9	137.0	144.2	151.4	158.5	163.2
80°	79.9	86.4	93.0	99.5	106.0	112.8	120.1	127.2	134.4	141.6	146.5
82.5°	62.3	69.1	75.9	82.7	89.4	96.4	103.6	110.7	117.9	125.2	130.2
85°	38.8	45.7	52.6	59.4	66.3	73.3	80.7	88.0	95.4	102.6	107.5
87.5°	21.9	28.7	35.5	42.3	49.2	56.2	63.4	70.7	77.9	85.2	90.0
90°	12.7	20.1	27.4	34.8	42.0	49.6	57.1	64.8	72.3	79.9	85.1
92.5°	18.3	25.1	31.9	38.6	45.4	52.6	60.0	67.4	74.8	82.3	87.2
95°	29.5	35.5	41.6	47.7	53.7	60.3	67.5	74.7	81.9	89.2	93.8
97.5°	43.5	48.7	53.9	59.0	64.2	70.4	77.7	84.8	92.1	99.2	103.9
100°	54.7	59.2	63.8	68.3	72.9	78.6	85.7	92.7	99.7	106.7	111.2
102.5°	66.9	70.8	74.6	78.4	82.3	87.7	94.4	101.3	108.1	115.0	119.4
105°	84.2	87.6	90.9	94.2	97.6	102.4	108.7	115.0	121.3	127.7	132.0
107.5°	103.7	106.5	109.2	112.0	114.8	119.0	124.8	130.5	136.3	142.0	146.2
110°	116.4	118.9	121.3	123.8	126.2	130.2	135.8	141.5	147.1	152.7	156.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	129.7	131.8	133.8	135.8	137.9	141.6	146.9	152.2	157.5	162.9	166.5
115°	149.6	151.1	152.5	154.0	155.5	158.7	163.8	168.9	174.0	179.0	182.6
117.5°	169.1	170.0	171.0	171.8	172.8	175.7	180.4	185.2	189.9	194.6	197.8
120°	181.5	182.3	183.1	183.9	184.6	187.3	191.8	196.3	200.9	205.3	208.2
122.5°	195.1	195.3	195.6	195.8	196.0	198.3	202.6	207.0	211.3	215.7	218.8
125°	214.4	214.2	214.1	214.0	213.8	215.7	219.7	223.7	227.7	231.7	234.7
127.5°	232.4	232.5	232.6	232.6	232.7	234.2	237.2	240.3	243.3	246.3	249.1
130°	244.7	244.7	244.8	244.9	244.9	246.3	248.8	251.5	254.1	256.7	259.5
132.5°	257.7	257.7	257.7	257.7	257.7	258.7	260.8	262.8	264.9	266.8	269.5
135°	274.3	274.7	275.1	275.6	276.0	276.8	278.0	279.1	280.2	281.3	283.8
137.5°	293.0	293.0	293.1	293.1	293.2	293.6	294.3	294.9	295.6	296.2	298.4
140°	305.6	305.6	305.5	305.5	305.5	305.6	305.8	305.9	306.0	306.2	308.3
142.5°	316.4	316.5	316.7	316.8	316.9	316.9	316.7	316.5	316.4	316.2	318.1
145°	332.2	332.2	332.4	332.5	332.6	332.8	332.8	332.9	333.0	333.1	333.9
147.5°	347.9	348.1	348.3	348.5	348.6	348.6	348.6	348.6	348.6	348.5	348.6
150°	357.4	357.6	357.7	357.9	358.0	358.1	358.1	358.1	358.1	358.1	358.1
152.5°	365.9	366.1	366.2	366.4	366.5	366.6	366.6	366.7	366.7	366.8	367.0
155°	379.7	379.7	379.7	379.7	379.7	379.7	379.6	379.5	379.5	379.4	379.7
157.5°	391.4	391.2	391.2	391.1	390.9	390.8	390.8	390.8	390.8	390.8	391.0
160°	398.3	398.2	398.2	398.1	398.0	397.9	397.9	397.8	397.8	397.7	397.9
162.5°	404.7	404.5	404.4	404.2	404.0	403.9	403.8	403.7	403.6	403.5	404.0
165°	413.3	413.1	412.9	412.6	412.5	412.3	412.1	412.0	411.8	411.7	412.1
167.5°	419.9	419.6	419.3	419.0	418.7	418.5	418.6	418.6	418.6	418.6	419.1
170°	423.7	423.3	422.9	422.5	422.2	422.1	422.1	422.2	422.3	422.4	422.7
172.5°	426.3	426.0	425.7	425.4	425.1	424.9	424.9	425.0	425.0	425.0	425.5
175°	430.0	429.6	429.2	428.9	428.5	428.3	428.2	428.1	428.1	428.0	428.5
177.5°	431.2	430.9	430.6	430.3	430.0	429.9	429.9	429.9	429.9	429.9	430.3
180°	430.6	430.6	430.6	430.6	430.6	430.6	430.6	430.6	430.6	430.6	430.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
2.5°	652.7	653.6	654.5	654.9	654.8	654.6	654.5	654.4
5°	651.0	652.2	653.6	654.1	654.0	653.8	653.7	653.5
7.5°	647.5	648.9	650.4	651.1	650.9	650.7	650.5	650.4
10°	643.9	645.5	646.9	647.5	647.4	647.2	647.1	646.9
12.5°	639.0	640.4	641.7	642.3	642.3	642.2	642.2	642.2
15°	630.0	631.5	632.9	633.6	633.5	633.3	633.1	632.9
17.5°	619.1	620.6	622.1	622.7	622.6	622.5	622.4	622.3
20°	610.6	612.2	613.8	614.6	614.6	614.6	614.6	614.6
22.5°	600.6	602.2	603.8	604.8	605.0	605.3	605.6	605.9
25°	585.2	587.0	588.8	589.7	589.9	590.1	590.2	590.4
27.5°	568.0	569.6	571.3	572.2	572.4	572.6	572.8	573.0
30°	555.9	557.7	559.5	560.5	560.8	561.2	561.5	561.8
32.5°	543.5	545.5	547.6	548.7	549.1	549.4	549.8	550.1
35°	523.9	526.1	528.4	529.8	530.3	530.7	531.2	531.8
37.5°	503.4	505.7	508.0	509.4	509.9	510.5	511.0	511.5
40°	489.0	491.4	493.9	495.4	496.1	496.7	497.4	498.0
42.5°	474.9	477.5	480.2	481.8	482.4	482.9	483.4	483.9
45°	453.0	455.7	458.5	460.2	461.1	461.9	462.7	463.5
47.5°	429.8	432.7	435.5	437.4	438.5	439.4	440.5	441.4
50°	413.6	416.9	420.1	422.3	423.2	424.1	425.2	426.1
52.5°	397.2	400.4	403.7	405.8	406.8	407.7	408.7	409.7
55°	372.5	375.8	379.0	381.2	382.1	383.1	384.1	385.0
57.5°	346.6	350.5	354.4	356.8	357.7	358.5	359.5	360.4
60°	328.8	332.5	336.2	338.7	340.1	341.4	342.7	344.0
62.5°	311.1	314.9	318.7	321.1	322.4	323.8	325.1	326.4
65°	283.9	288.0	292.1	294.7	296.1	297.4	298.7	300.0
67.5°	257.2	261.4	265.5	268.2	269.5	270.7	272.0	273.2
70°	238.4	242.8	247.1	250.0	251.1	252.2	253.4	254.5
72.5°	220.5	224.8	229.0	231.8	233.1	234.3	235.6	236.9
75°	193.2	197.7	202.4	205.4	206.8	208.3	209.8	211.2
77.5°	167.9	172.5	177.1	180.2	181.7	183.3	184.8	186.4
80°	151.4	156.2	161.1	164.2	165.5	166.8	168.1	169.5
82.5°	135.2	140.2	145.2	148.5	149.9	151.3	152.7	154.2
85°	112.4	117.3	122.2	125.5	127.1	128.8	130.4	132.1
87.5°	94.8	99.6	104.5	107.6	109.1	110.6	112.0	113.5
90°	90.3	95.5	100.7	104.0	105.4	106.8	108.3	109.7
92.5°	92.0	96.9	101.7	104.9	106.2	107.6	109.1	110.5
95°	98.4	103.0	107.6	110.7	112.2	113.6	115.1	116.5
97.5°	108.4	112.9	117.4	120.5	121.8	123.2	124.6	126.0
100°	115.8	120.4	124.9	127.7	128.8	130.0	131.2	132.3
102.5°	123.9	128.4	132.9	135.7	137.1	138.5	139.8	141.1
105°	136.3	140.5	144.9	147.8	149.3	150.8	152.3	153.9
107.5°	150.4	154.7	158.9	161.6	162.7	163.9	165.0	166.2
110°	159.9	163.5	167.1	169.7	171.2	172.8	174.3	175.8



TEST NUMBER: P332539-830

CATALOG NUMBER: SA4XXDIP-C575D365U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	170.0	173.6	177.2	179.6	181.0	182.4	183.7	185.0
115°	186.1	189.5	193.0	195.4	196.4	197.5	198.6	199.6
117.5°	201.0	204.1	207.3	209.3	210.6	211.7	212.8	214.0
120°	211.1	214.0	216.9	219.0	220.5	222.0	223.4	224.9
122.5°	221.7	224.7	227.7	229.7	230.6	231.5	232.4	233.4
125°	237.6	240.5	243.5	245.3	246.2	247.0	247.9	248.7
127.5°	251.8	254.7	257.4	259.3	260.3	261.3	262.3	263.3
130°	262.2	265.0	267.8	269.6	270.2	270.9	271.5	272.3
132.5°	272.1	274.8	277.5	279.2	280.1	281.0	281.8	282.7
135°	286.3	288.8	291.2	292.8	293.6	294.4	295.1	295.9
137.5°	300.7	302.8	305.0	306.5	307.4	308.2	309.1	310.0
140°	310.3	312.4	314.4	315.8	316.5	317.3	318.0	318.8
142.5°	319.9	321.8	323.6	324.9	325.6	326.2	326.9	327.5
145°	334.9	335.7	336.7	337.3	337.8	338.2	338.7	339.0
147.5°	348.6	348.6	348.7	349.0	349.4	349.9	350.3	350.8
150°	358.1	358.1	358.1	358.0	358.0	357.9	357.8	357.7
152.5°	367.2	367.4	367.6	367.5	367.3	367.1	366.9	366.7
155°	379.9	380.2	380.5	380.5	380.2	379.9	379.7	379.4
157.5°	391.2	391.4	391.6	391.6	391.3	391.2	390.9	390.6
160°	398.1	398.3	398.6	398.5	398.1	397.8	397.4	397.0
162.5°	404.4	404.7	405.1	405.1	404.8	404.4	404.1	403.7
165°	412.6	413.0	413.4	413.5	413.2	412.9	412.6	412.4
167.5°	419.5	419.9	420.4	420.4	419.9	419.4	419.0	418.5
170°	423.2	423.7	424.1	424.0	423.6	423.0	422.5	422.0
172.5°	426.0	426.5	427.0	427.0	426.5	425.9	425.5	424.9
175°	429.0	429.5	430.1	430.1	429.5	429.0	428.5	428.0
177.5°	430.6	431.1	431.5	431.5	431.0	430.6	430.1	429.6
180°	430.6	430.6	430.6	430.6	430.6	430.6	430.6	430.6

(END OF REPORT)