

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: P331352-830

Luminaire Tested: **SA2XXDIP-C675D725U830-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331352-830
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-C675D725U830-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 675 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 725 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

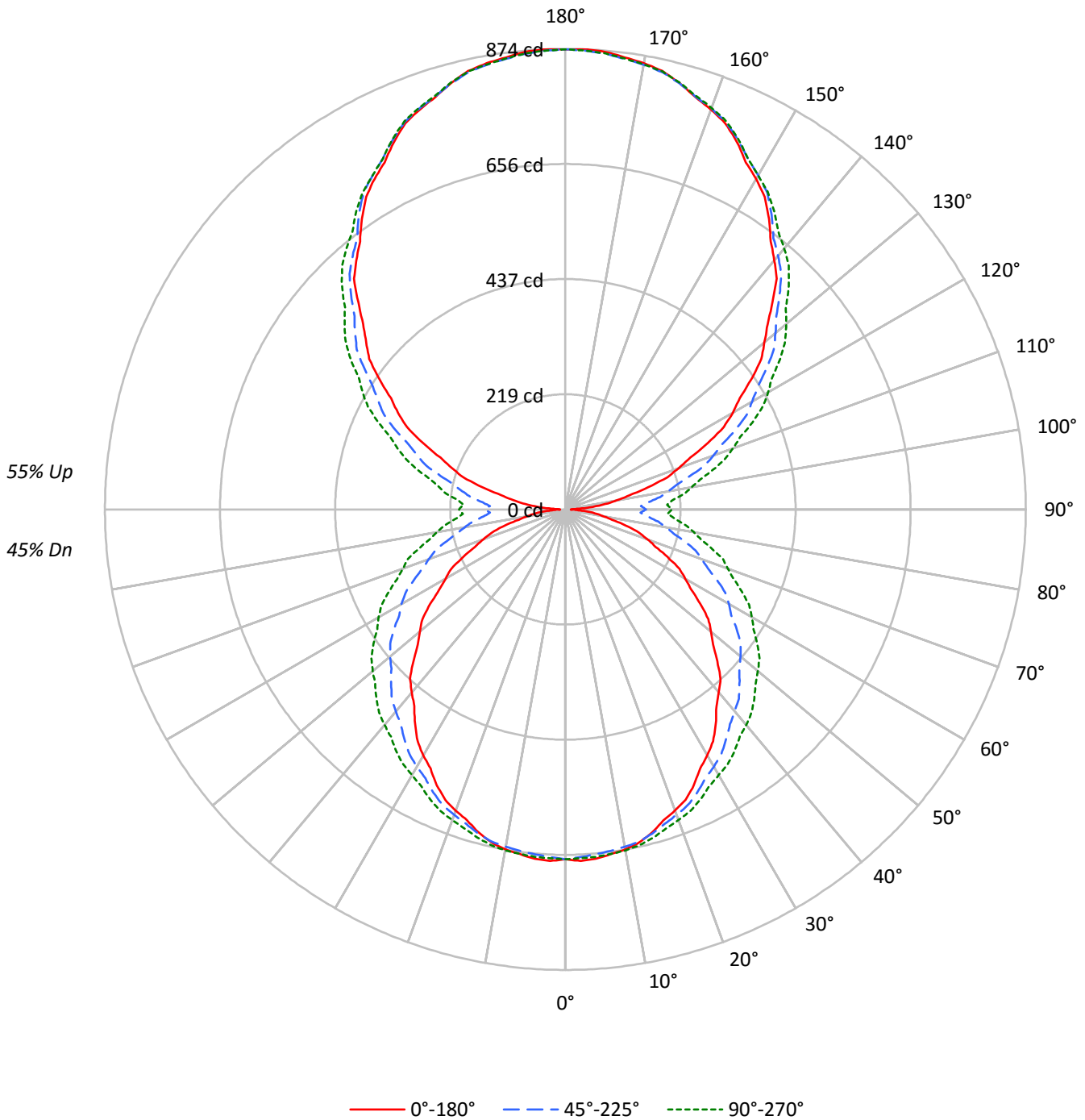
Lumens per Lamp: N/A
Luminaire Lumens: 4977.5 lumens
Efficiency: N/A
Efficacy: 108.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: General Diffuse

Input Watts (W): 45.9
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: P331352-830
CATALOG NUMBER: SA2XXDIP-C675D725U830-4F0-1E-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	0
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	28
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	59	49	42	36	41	35	31	33	29	25	26	23	20	17
6	60	48	39	33	55	44	36	31	37	31	26	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°	10719	10719	10719
5°	10771	10318	10278
10°	10704	10013	9900
15°	10557	9691	9503
20°	10370	9345	9120
25°	10186	9011	8772
30°	9928	8668	8421
35°	9665	8338	8176
40°	9388	8055	7929
45°	9124	7803	7719
50°	8843	7574	7511
55°	8548	7331	7300
60°	8188	7076	7078
65°	7811	6777	6812
70°	7390	6457	6525
75°	6853	6143	6262
80°	6004	5822	5995
85°	5192	5544	5785



TEST NUMBER: P331352-830

CATALOG NUMBER: SA2XXDIP-C675D725U830-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.9	1.3
10°-20°	180.4	3.6
20°-30°	273.4	5.5
30°-40°	333.0	6.7
40°-50°	358.2	7.2
50°-60°	347.9	7.0
60°-70°	303.7	6.1
70°-80°	233.8	4.7
80°-90°	160.4	3.2
90°-100°	163.4	3.3
100°-110°	250.8	5.0
110°-120°	345.8	6.9
120°-130°	415.3	8.3
130°-140°	445.7	9.0
140°-150°	427.2	8.6
150°-160°	356.5	7.2
160°-170°	236.5	4.8
170°-180°	82.6	1.7
0°-30°	516.7	10.4
0°-40°	849.6	17.1
0°-60°	1555.7	31.3
0°-90°	2253.7	45.3
90°-120°	760.0	15.3
90°-150°	2048.2	41.1
90°-180°	2724.0	54.7
0°-180°	4977.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	664	664	664	664	664	
5°	666	663	657	663	662	63
15°	635	637	637	645	645	179
25°	577	584	593	604	607	265
35°	498	514	532	552	560	311
45°	408	434	468	496	507	315
55°	313	348	397	431	444	279
65°	214	261	318	356	370	212
75°	118	173	234	274	288	125
85°	35	94	156	195	210	37
90°	10	76	153	188	202	8
95°	46	99	158	193	204	50
105°	163	195	245	279	291	173
115°	298	315	355	382	392	295
125°	431	439	466	489	498	385
135°	556	564	575	594	600	429
145°	673	678	683	689	691	421
155°	770	772	774	778	776	354
165°	838	837	837	842	838	236
175°	872	869	868	872	869	83
180°	873	873	873	873	873	



TEST NUMBER: P331352-830

CATALOG NUMBER: SA2XXDIP-C675D725U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9
2.5°	667.8	667.2	666.8	666.2	665.7	664.9	663.6	662.4	661.3	660.1	660.9
5°	665.8	665.2	664.6	663.9	663.3	662.3	661.0	659.8	658.5	657.1	658.5
7.5°	659.9	659.4	659.0	658.6	658.2	657.4	656.5	655.4	654.5	653.6	655.1
10°	655.3	654.8	654.4	653.9	653.6	653.0	652.3	651.8	651.1	650.4	652.1
12.5°	647.5	647.6	647.7	647.8	647.9	647.7	647.2	646.8	646.3	645.8	647.5
15°	635.1	635.5	635.9	636.3	636.8	637.0	637.0	637.0	637.0	637.0	638.9
17.5°	618.9	619.8	620.7	621.6	622.5	623.3	624.0	624.6	625.3	626.0	628.0
20°	608.1	609.2	610.2	611.3	612.4	613.3	614.2	615.1	616.0	616.8	619.2
22.5°	596.5	597.8	599.1	600.3	601.5	602.8	604.0	605.1	606.3	607.6	609.9
25°	577.3	578.8	580.3	581.8	583.3	585.0	586.9	588.9	590.8	592.7	595.3
27.5°	554.2	556.7	559.1	561.6	564.0	566.4	568.6	570.9	573.2	575.4	578.6
30°	538.9	541.6	544.4	547.1	550.0	552.7	555.5	558.3	561.1	563.8	567.2
32.5°	521.9	525.0	528.1	531.2	534.4	537.6	540.9	544.1	547.4	550.7	554.7
35°	497.5	501.1	504.7	508.3	512.0	515.9	519.9	524.0	528.0	532.1	536.8
37.5°	470.9	475.1	479.3	483.4	487.7	492.4	497.7	502.9	508.1	513.4	518.7
40°	453.2	457.9	462.6	467.3	472.0	477.2	483.1	488.8	494.6	500.3	505.9
42.5°	436.3	440.9	445.6	450.3	455.1	460.7	467.4	474.0	480.6	487.3	493.3
45°	407.9	413.8	419.5	425.3	431.0	437.7	445.2	452.7	460.1	467.6	474.3
47.5°	380.0	386.3	392.7	398.9	405.2	412.7	421.5	430.3	439.0	447.8	454.8
50°	360.8	367.5	374.1	380.7	387.3	395.5	405.1	414.7	424.3	433.9	441.2
52.5°	342.3	349.3	356.3	363.3	370.2	378.8	388.9	399.1	409.2	419.3	426.8
55°	312.7	320.4	328.1	335.8	343.5	352.9	364.0	375.1	386.3	397.4	405.1
57.5°	283.4	292.2	300.9	309.5	318.2	328.2	339.5	350.8	362.2	373.5	381.8
60°	262.7	271.8	281.1	290.3	299.4	310.2	322.3	334.5	346.7	358.9	367.0
62.5°	244.2	253.7	263.3	272.8	282.4	293.2	305.4	317.5	329.8	342.0	350.6
65°	213.6	224.0	234.6	245.1	255.5	267.0	279.7	292.3	304.9	317.5	326.3
67.5°	185.5	196.4	207.5	218.4	229.3	241.2	254.1	267.0	279.9	292.8	301.7
70°	165.5	176.6	187.8	198.9	210.0	222.2	235.4	248.6	261.9	275.2	284.4
72.5°	147.0	158.4	169.9	181.4	192.8	205.3	218.8	232.1	245.6	259.0	268.1
75°	118.4	130.4	142.3	154.3	166.3	179.1	192.7	206.4	220.1	233.8	243.0
77.5°	90.7	103.2	115.7	128.2	140.7	154.0	167.9	181.8	195.7	209.5	218.8
80°	72.2	85.2	98.2	111.3	124.3	137.8	151.7	165.6	179.5	193.4	202.4
82.5°	56.7	69.7	82.5	95.4	108.3	121.7	135.8	149.9	163.9	178.0	187.0
85°	34.7	47.9	61.2	74.4	87.7	101.1	114.8	128.5	142.2	155.9	164.9
87.5°	19.0	32.1	45.2	58.4	71.5	85.3	99.7	114.1	128.6	143.0	151.6
90°	10.4	24.7	39.1	53.4	67.9	83.6	100.9	118.2	135.5	152.8	161.0
92.5°	22.0	35.0	48.0	60.9	73.9	87.4	101.4	115.5	129.5	143.5	151.9
95°	46.0	57.7	69.4	81.1	92.7	105.2	118.3	131.5	144.7	157.8	165.9
97.5°	76.7	87.1	97.5	107.8	118.2	129.9	142.8	155.8	168.7	181.6	189.5
100°	100.3	109.5	118.8	128.0	137.1	148.1	160.5	173.0	185.4	197.9	205.8
102.5°	124.3	132.5	140.8	149.1	157.4	167.7	179.9	192.2	204.4	216.7	224.5
105°	163.2	169.9	176.6	183.3	190.0	199.1	210.5	222.0	233.4	244.9	252.6
107.5°	203.4	209.1	214.7	220.5	226.1	234.3	245.0	255.6	266.3	276.8	284.2
110°	228.6	233.8	239.0	244.3	249.6	257.4	268.0	278.4	288.9	299.4	306.2



TEST NUMBER: P331352-830

CATALOG NUMBER: SA2XXDIP-C675D725U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	256.8	261.5	266.0	270.6	275.1	282.4	292.2	302.0	311.9	321.7	328.1
115°	298.5	301.9	305.2	308.6	311.9	318.2	327.5	336.8	346.1	355.3	361.7
117.5°	339.1	342.0	344.8	347.7	350.5	355.9	363.9	371.9	379.8	387.9	393.8
120°	366.8	369.0	371.2	373.3	375.5	380.2	387.5	394.6	401.9	409.2	415.2
122.5°	392.2	394.1	396.0	397.9	399.8	404.4	411.5	418.6	425.7	432.8	438.3
125°	430.7	432.2	433.7	435.1	436.6	440.5	446.9	453.2	459.6	465.9	471.2
127.5°	469.2	470.8	472.5	474.1	475.8	479.1	484.0	488.9	493.8	498.8	503.5
130°	493.3	495.2	497.2	499.1	501.0	504.0	508.2	512.4	516.5	520.7	525.5
132.5°	520.5	522.0	523.5	525.0	526.5	529.0	532.5	536.1	539.6	543.2	547.4
135°	555.7	557.5	559.3	561.1	562.9	565.1	567.5	570.0	572.5	575.0	579.3
137.5°	593.9	595.3	596.7	598.1	599.6	601.0	602.4	603.7	605.1	606.4	610.3
140°	616.9	618.1	619.3	620.7	621.9	623.1	624.4	625.7	626.9	628.1	631.6
142.5°	640.5	641.7	643.0	644.2	645.5	646.4	647.1	647.7	648.4	649.0	651.9
145°	673.4	674.5	675.7	676.8	678.0	679.0	680.0	681.0	681.9	683.0	684.4
147.5°	703.6	704.9	706.3	707.7	709.1	710.1	710.8	711.4	712.1	712.8	713.2
150°	724.2	725.2	726.1	727.2	728.1	729.0	729.6	730.3	730.9	731.6	732.1
152.5°	742.4	743.5	744.4	745.5	746.4	747.2	748.1	748.9	749.6	750.5	751.0
155°	769.9	770.3	770.9	771.4	771.8	772.3	772.8	773.4	773.8	774.3	775.1
157.5°	793.3	793.6	794.0	794.3	794.7	794.9	795.2	795.5	795.8	796.1	797.2
160°	807.5	807.8	808.1	808.4	808.8	809.0	809.2	809.4	809.5	809.6	810.7
162.5°	820.4	820.5	820.6	820.6	820.7	820.8	821.0	821.1	821.3	821.4	822.6
165°	837.6	837.5	837.4	837.2	837.0	836.9	836.9	836.9	836.9	836.9	838.1
167.5°	852.1	851.6	851.1	850.6	850.2	849.9	849.9	849.8	849.8	849.7	850.9
170°	859.8	859.3	858.8	858.3	857.8	857.4	857.3	857.1	857.0	856.8	858.0
172.5°	865.1	864.6	864.1	863.6	863.1	862.8	862.6	862.4	862.3	862.1	863.3
175°	871.6	871.1	870.5	870.1	869.6	869.2	868.8	868.6	868.2	867.9	869.0
177.5°	874.2	873.8	873.5	873.0	872.6	872.3	872.0	871.8	871.5	871.3	872.0
180°	873.0	873.0	873.0	873.0	873.0	873.0	873.0	873.0	873.0	873.0	873.0



TEST NUMBER: P331352-830

CATALOG NUMBER: SA2XXDIP-C675D725U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9
2.5°	661.8	662.6	663.5	663.7	663.4	663.1	662.7	662.4
5°	659.8	661.0	662.3	662.9	662.6	662.4	662.2	661.9
7.5°	656.6	658.2	659.7	660.3	660.2	659.9	659.7	659.5
10°	653.8	655.5	657.3	658.0	657.8	657.6	657.4	657.1
12.5°	649.2	650.9	652.7	653.4	653.2	653.0	652.8	652.5
15°	640.8	642.7	644.7	645.5	645.4	645.1	644.9	644.7
17.5°	630.0	632.1	634.0	635.1	635.1	635.1	635.1	635.1
20°	621.5	623.9	626.1	627.4	627.4	627.4	627.4	627.4
22.5°	612.3	614.6	616.9	618.3	618.6	619.0	619.3	619.6
25°	597.9	600.4	602.9	604.5	605.2	605.9	606.5	607.2
27.5°	581.9	585.1	588.4	590.2	590.7	591.2	591.6	592.1
30°	570.7	574.1	577.5	579.6	580.2	580.9	581.5	582.1
32.5°	558.6	562.6	566.5	569.0	570.2	571.4	572.5	573.6
35°	541.5	546.2	550.9	554.0	555.5	557.0	558.5	560.0
37.5°	523.9	529.0	534.3	537.7	539.3	540.8	542.4	544.0
40°	511.4	517.0	522.5	526.3	528.2	530.2	532.1	534.0
42.5°	499.4	505.5	511.5	515.6	517.5	519.4	521.3	523.2
45°	480.9	487.5	494.2	498.5	500.7	502.8	504.9	507.1
47.5°	461.7	468.6	475.5	480.1	482.5	484.8	487.2	489.6
50°	448.5	455.7	463.1	467.9	470.2	472.6	474.9	477.2
52.5°	434.2	441.7	449.1	454.1	456.6	459.1	461.7	464.2
55°	412.7	420.5	428.2	433.4	436.2	438.9	441.8	444.5
57.5°	390.1	398.4	406.7	412.3	415.1	417.9	420.8	423.6
60°	375.1	383.2	391.4	397.0	399.9	402.9	406.0	409.0
62.5°	359.2	367.9	376.5	382.3	385.0	387.9	390.7	393.5
65°	335.1	343.8	352.6	358.4	361.2	363.9	366.7	369.5
67.5°	310.6	319.4	328.3	334.2	337.1	340.0	342.9	345.8
70°	293.6	302.7	312.0	317.8	320.4	323.0	325.6	328.1
72.5°	277.1	286.1	295.1	301.1	304.3	307.4	310.4	313.5
75°	252.2	261.4	270.6	276.5	279.4	282.1	284.9	287.7
77.5°	227.9	237.0	246.2	252.2	255.2	258.3	261.2	264.2
80°	211.3	220.4	229.3	235.4	238.3	241.3	244.3	247.3
82.5°	196.0	204.9	214.0	219.8	222.6	225.5	228.3	231.1
85°	173.8	182.9	191.8	197.7	200.8	203.8	206.8	209.7
87.5°	160.2	168.9	177.6	183.3	186.1	188.8	191.6	194.4
90°	169.3	177.5	185.7	191.1	193.9	196.6	199.3	202.1
92.5°	160.4	168.8	177.3	182.9	185.4	188.0	190.6	193.2
95°	174.1	182.2	190.3	195.5	197.7	200.0	202.2	204.4
97.5°	197.5	205.4	213.3	218.5	221.0	223.5	225.9	228.5
100°	213.7	221.6	229.5	234.6	236.8	238.9	241.1	243.4
102.5°	232.4	240.3	248.2	253.2	255.3	257.6	259.8	261.9
105°	260.4	268.2	276.1	281.2	283.5	285.9	288.2	290.6
107.5°	291.5	298.8	306.1	310.6	312.2	313.8	315.4	317.0
110°	313.0	319.9	326.8	331.1	332.9	334.8	336.7	338.6



TEST NUMBER: P331352-830

CATALOG NUMBER: SA2XXDIP-C675D725U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	334.6	341.0	347.5	351.7	353.6	355.7	357.7	359.7
115°	367.9	374.1	380.4	384.5	386.3	388.1	390.0	391.9
117.5°	399.7	405.7	411.6	415.4	417.1	418.8	420.5	422.2
120°	421.1	427.2	433.1	437.1	438.9	440.7	442.6	444.5
122.5°	443.7	449.1	454.5	458.1	459.7	461.4	463.0	464.7
125°	476.5	481.7	487.0	490.6	492.3	494.1	495.9	497.6
127.5°	508.2	512.9	517.6	520.7	522.0	523.4	524.7	526.1
130°	530.3	535.1	539.9	542.8	543.8	544.9	546.0	547.1
132.5°	551.7	555.9	560.2	562.9	564.0	565.2	566.4	567.6
135°	583.5	587.9	592.2	595.0	596.3	597.5	598.7	599.8
137.5°	614.1	617.8	621.7	624.0	624.8	625.6	626.4	627.2
140°	635.0	638.4	641.9	643.9	644.5	645.1	645.7	646.4
142.5°	654.8	657.6	660.4	662.1	662.6	663.1	663.5	663.9
145°	685.9	687.3	688.7	689.7	690.0	690.5	690.9	691.4
147.5°	713.8	714.4	714.8	715.0	714.9	714.8	714.7	714.6
150°	732.5	733.0	733.6	733.6	733.0	732.5	732.1	731.6
152.5°	751.7	752.3	752.9	752.9	752.3	751.7	751.0	750.5
155°	775.9	776.7	777.6	777.8	777.2	776.7	776.3	775.8
157.5°	798.3	799.5	800.6	800.7	799.9	799.2	798.3	797.6
160°	811.6	812.7	813.6	813.8	813.1	812.5	811.8	811.2
162.5°	823.7	824.8	826.0	826.0	825.3	824.5	823.7	822.9
165°	839.2	840.4	841.5	841.7	840.8	840.0	839.2	838.4
167.5°	852.1	853.2	854.3	854.5	853.7	852.8	852.0	851.1
170°	859.1	860.3	861.4	861.5	860.5	859.5	858.6	857.5
172.5°	864.4	865.5	866.7	866.8	865.8	864.8	863.8	862.9
175°	870.2	871.3	872.4	872.5	871.6	870.5	869.6	868.6
177.5°	872.8	873.6	874.4	874.4	873.6	872.8	872.0	871.3
180°	873.0	873.0	873.0	873.0	873.0	873.0	873.0	873.0

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