

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: P331342-840

Luminaire Tested: **SA2XXDIP-C675D530U840-4F0-1E-UDD-D**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331342-840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C675D530U840-4F0-1E-UDD-D
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 675 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 530 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

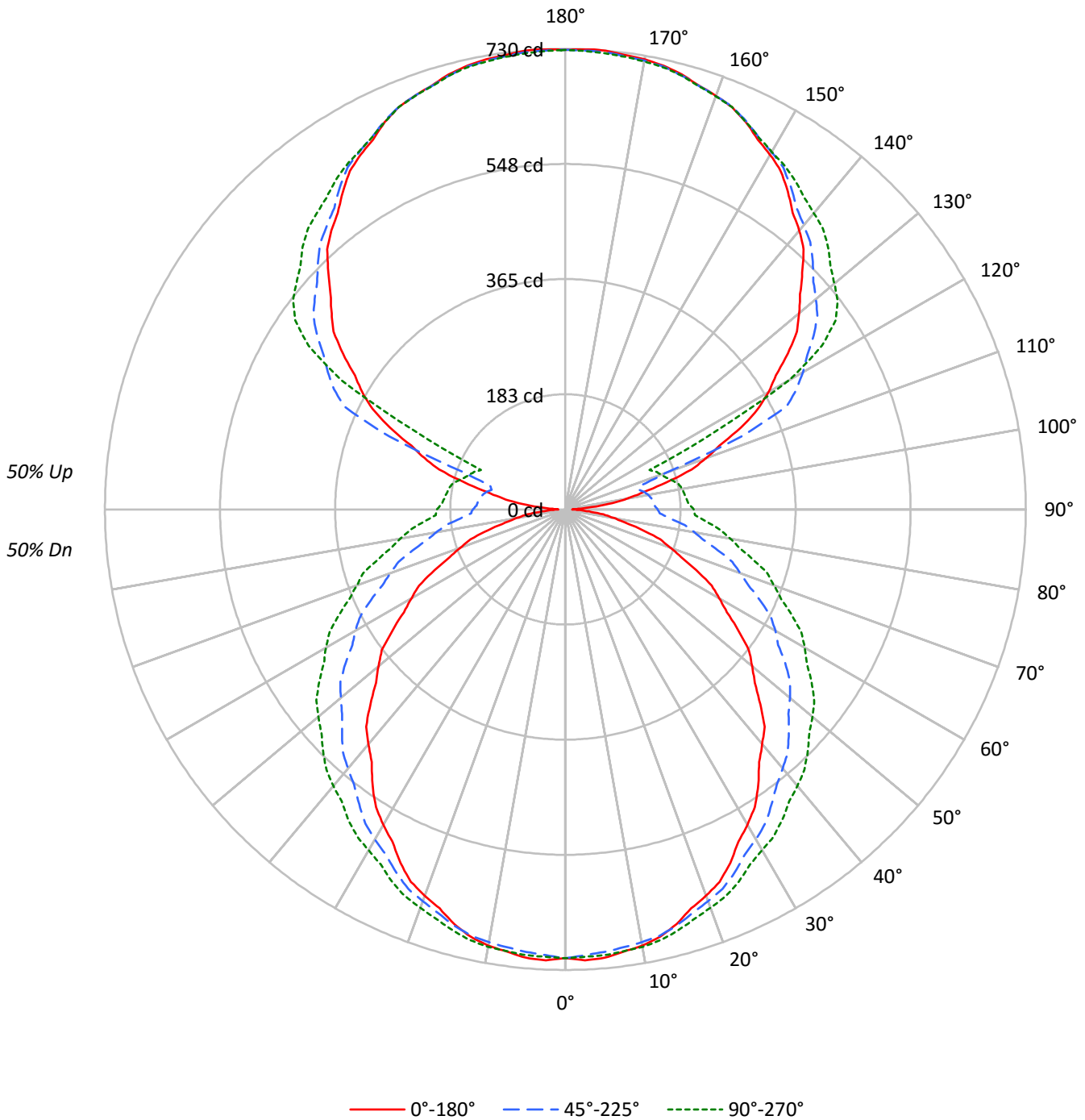
Lumens per Lamp: N/A
Luminaire Lumens: 4850.0 lumens
Efficiency: N/A
Efficacy: 120.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: General Diffuse

Input Watts (W): 40.3
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	96	91	87	83	88	84	80	77	71	68	65	58	56	54	47	46	44	39
2	87	79	72	66	80	73	67	62	61	57	53	50	47	44	41	38	36	31
3	79	69	61	55	72	63	57	51	53	48	44	44	40	37	35	33	30	26
4	72	61	52	46	66	56	48	43	47	41	37	39	35	31	31	28	25	22
5	66	54	45	39	60	50	42	36	42	36	31	35	30	27	28	25	22	19
6	61	48	40	34	56	44	37	31	38	32	27	31	27	23	25	22	19	16
7	56	43	35	29	51	40	33	27	34	28	24	28	24	20	23	20	17	14
8	52	39	31	26	48	36	29	24	31	25	21	26	21	18	21	18	15	13
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	11
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11485	11485	11485
5°	11541	11055	11013
10°	11469	10729	10608
15°	11310	10384	10181
20°	11112	10013	9772
25°	10913	9655	9399
30°	10635	9288	9023
35°	10355	8933	8760
40°	10057	8630	8496
45°	9777	8361	8270
50°	9476	8116	8048
55°	9160	7855	7822
60°	8770	7583	7583
65°	8367	7262	7299
70°	7917	6920	6990
75°	7339	6581	6708
80°	6436	6238	6424
85°	5566	5939	6199



TEST NUMBER: P331342-840

CATALOG NUMBER: SA2XXDIP-C675D530U840-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.4	1.4
10°-20°	193.3	4.0
20°-30°	292.9	6.0
30°-40°	356.7	7.4
40°-50°	383.8	7.9
50°-60°	372.7	7.7
60°-70°	325.4	6.7
70°-80°	250.5	5.2
80°-90°	169.9	3.5
90°-100°	140.1	2.9
100°-110°	173.7	3.6
110°-120°	294.0	6.1
120°-130°	424.3	8.7
130°-140°	431.2	8.9
140°-150°	390.9	8.1
150°-160°	312.4	6.4
160°-170°	201.3	4.2
170°-180°	69.3	1.4
0°-30°	553.6	11.4
0°-40°	910.3	18.8
0°-60°	1666.8	34.4
0°-90°	2412.8	49.7
90°-120°	607.9	12.5
90°-150°	1854.2	38.2
90°-180°	2437.0	50.2
0°-180°	4850.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	711	711	711	711	711	
5°	713	710	704	710	709	68
15°	680	682	682	691	691	192
25°	618	626	635	647	651	284
35°	533	551	570	592	600	333
45°	437	465	501	532	543	337
55°	335	373	426	462	476	299
65°	229	280	340	381	396	227
75°	127	185	250	293	308	134
85°	37	101	167	209	225	40
90°	11	77	147	189	204	8
95°	42	76	139	179	193	48
105°	165	204	121	161	176	177
115°	307	330	387	184	147	302
125°	430	439	480	511	523	384
135°	531	540	555	581	589	410
145°	615	615	624	633	636	385
155°	677	673	679	682	678	312
165°	714	711	712	715	712	202
175°	730	726	727	730	726	69
180°	728	728	728	728	728	



TEST NUMBER: P331342-840

CATALOG NUMBER: SA2XXDIP-C675D530U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	711.3	711.3	711.3	711.3	711.3	711.3	711.3	711.3	711.3	711.3	711.3
2.5°	715.5	714.9	714.4	713.8	713.3	712.4	711.0	709.7	708.5	707.2	708.1
5°	713.4	712.7	712.1	711.3	710.6	709.6	708.2	706.9	705.5	704.1	705.5
7.5°	707.0	706.5	706.1	705.6	705.2	704.4	703.4	702.3	701.3	700.2	701.9
10°	702.1	701.6	701.1	700.6	700.2	699.6	698.9	698.3	697.6	696.9	698.7
12.5°	693.8	693.9	694.0	694.1	694.2	694.0	693.5	693.0	692.5	692.0	693.8
15°	680.4	680.9	681.4	681.8	682.3	682.5	682.5	682.5	682.5	682.5	684.5
17.5°	663.1	664.1	665.0	666.0	666.9	667.8	668.5	669.2	669.9	670.8	672.9
20°	651.6	652.7	653.8	655.0	656.1	657.1	658.0	659.0	659.9	660.9	663.4
22.5°	639.1	640.5	641.9	643.2	644.5	645.8	647.1	648.3	649.6	651.0	653.5
25°	618.5	620.2	621.8	623.4	625.0	626.8	628.8	631.0	633.0	635.0	637.8
27.5°	593.8	596.4	599.1	601.7	604.3	606.8	609.3	611.7	614.1	616.5	620.0
30°	577.3	580.3	583.3	586.2	589.3	592.2	595.2	598.1	601.2	604.1	607.7
32.5°	559.2	562.5	565.8	569.2	572.6	576.0	579.6	583.0	586.5	590.1	594.3
35°	533.0	536.8	540.8	544.6	548.6	552.7	557.0	561.4	565.7	570.1	575.1
37.5°	504.5	509.1	513.5	518.0	522.5	527.6	533.2	538.9	544.4	550.1	555.7
40°	485.5	490.6	495.6	500.7	505.7	511.3	517.6	523.7	529.9	536.0	542.0
42.5°	467.5	472.4	477.5	482.5	487.6	493.6	500.8	507.9	514.9	522.1	528.6
45°	437.1	443.3	449.5	455.7	461.8	469.0	477.0	485.0	493.0	501.0	508.2
47.5°	407.2	413.9	420.7	427.4	434.1	442.2	451.6	461.0	470.4	479.8	487.3
50°	386.6	393.7	400.8	407.9	415.0	423.7	434.0	444.3	454.6	464.9	472.7
52.5°	366.8	374.3	381.7	389.2	396.7	405.9	416.7	427.6	438.4	449.3	457.3
55°	335.1	343.3	351.5	359.8	368.0	378.1	390.0	401.9	413.8	425.8	434.0
57.5°	303.7	313.1	322.3	331.6	340.9	351.6	363.8	375.9	388.1	400.2	409.1
60°	281.4	291.2	301.1	311.0	320.8	332.3	345.4	358.4	371.4	384.6	393.2
62.5°	261.7	271.9	282.1	292.3	302.6	314.2	327.2	340.2	353.4	366.4	375.7
65°	228.8	240.0	251.4	262.6	273.8	286.1	299.6	313.2	326.7	340.2	349.6
67.5°	198.7	210.5	222.3	234.0	245.7	258.4	272.3	286.1	299.9	313.8	323.3
70°	177.3	189.2	201.2	213.1	225.0	238.0	252.3	266.4	280.6	294.9	304.7
72.5°	157.5	169.8	182.1	194.4	206.6	219.9	234.4	248.7	263.2	277.5	287.2
75°	126.8	139.7	152.5	165.3	178.1	191.9	206.5	221.2	235.8	250.5	260.3
77.5°	97.1	110.6	124.0	137.3	150.8	165.0	179.9	194.8	209.6	224.5	234.4
80°	77.4	91.3	105.2	119.3	133.2	147.6	162.6	177.4	192.3	207.2	216.8
82.5°	60.8	74.6	88.4	102.2	116.0	130.4	145.5	160.6	175.6	190.8	200.4
85°	37.2	51.3	65.5	79.7	93.9	108.4	123.0	137.6	152.4	167.0	176.6
87.5°	20.3	34.2	48.2	62.0	75.9	90.4	105.2	120.1	134.9	149.8	159.2
90°	10.8	25.4	40.0	54.5	69.2	84.2	99.9	115.4	131.0	146.6	156.3
92.5°	20.1	32.4	44.6	56.9	69.2	82.6	97.1	111.7	126.3	140.9	150.2
95°	42.5	49.4	56.4	63.2	70.1	80.9	95.4	110.0	124.5	139.2	148.5
97.5°	75.2	73.9	72.6	71.3	70.0	76.9	91.9	107.0	122.1	137.2	146.1
100°	100.5	92.9	85.3	77.8	70.2	73.8	88.7	103.5	118.4	133.1	142.6
102.5°	127.5	131.9	136.2	140.6	144.9	145.0	140.8	136.6	132.4	128.2	137.7
105°	165.4	175.5	185.7	195.8	206.0	201.1	181.0	161.0	140.9	120.8	130.1
107.5°	209.7	217.9	226.0	234.2	242.4	233.0	206.0	179.0	152.2	125.2	131.6
110°	237.6	244.6	251.7	258.7	265.8	257.9	235.3	212.7	190.1	167.4	163.1



TEST NUMBER: P331342-840

CATALOG NUMBER: SA2XXDIP-C675D530U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	264.6	270.6	276.6	282.7	288.7	292.9	295.2	297.5	299.8	302.2	266.7
115°	307.2	311.6	316.2	320.7	325.2	334.1	347.3	360.5	373.8	387.0	339.7
117.5°	344.2	348.1	351.9	355.8	359.7	367.4	378.9	390.5	402.0	413.5	407.3
120°	372.0	374.7	377.4	380.0	382.7	389.7	400.9	412.2	423.4	434.7	442.6
122.5°	395.7	397.8	400.0	402.2	404.5	411.0	421.9	432.8	443.7	454.6	461.7
125°	430.5	432.0	433.5	435.0	436.7	442.1	451.7	461.3	470.8	480.4	487.4
127.5°	463.1	464.5	466.1	467.5	468.9	473.4	481.0	488.6	496.1	503.7	510.6
130°	483.7	485.4	487.1	488.7	490.3	494.2	500.3	506.4	512.5	518.6	525.4
132.5°	504.8	506.2	507.6	509.0	510.3	513.5	518.5	523.5	528.5	533.5	539.9
135°	531.2	533.1	534.9	536.8	538.7	541.3	544.6	548.1	551.4	554.7	560.7
137.5°	559.0	560.2	561.5	562.7	564.0	565.7	567.9	570.2	572.3	574.5	579.9
140°	577.0	577.7	578.5	579.2	579.9	581.1	582.9	584.6	586.3	588.1	592.8
142.5°	592.3	592.9	593.5	594.1	594.7	595.8	597.3	599.0	600.5	602.1	605.9
145°	615.0	614.9	614.8	614.7	614.6	615.5	617.5	619.5	621.5	623.5	625.6
147.5°	635.8	635.3	634.9	634.5	634.0	634.8	636.7	638.7	640.7	642.7	643.5
150°	649.2	648.4	647.6	646.8	646.0	646.5	648.4	650.3	652.2	654.0	654.7
152.5°	660.7	659.7	658.8	657.9	657.0	657.4	659.2	661.1	662.8	664.6	665.3
155°	677.2	676.2	675.1	674.1	673.0	673.2	674.6	676.0	677.4	678.8	679.5
157.5°	690.1	689.3	688.4	687.5	686.6	686.7	687.6	688.6	689.6	690.6	691.4
160°	697.8	697.1	696.4	695.7	695.0	695.0	695.7	696.4	697.1	697.8	698.5
162.5°	704.5	703.8	703.1	702.4	701.8	701.7	702.3	702.9	703.5	704.1	704.9
165°	713.6	712.9	712.2	711.4	710.7	710.6	710.9	711.2	711.7	712.0	712.9
167.5°	720.3	719.6	718.9	718.2	717.5	717.3	717.6	718.0	718.3	718.6	719.4
170°	724.1	723.5	722.8	722.1	721.3	721.0	721.3	721.5	721.8	722.1	722.9
172.5°	726.7	726.0	725.3	724.6	723.9	723.6	723.9	724.1	724.3	724.6	725.4
175°	729.9	729.1	728.3	727.5	726.6	726.4	726.6	726.8	727.0	727.3	728.1
177.5°	730.4	729.8	729.1	728.5	727.8	727.5	727.6	727.7	727.8	727.9	728.6
180°	728.3	728.3	728.3	728.3	728.3	728.3	728.3	728.3	728.3	728.3	728.3



TEST NUMBER: P331342-840

CATALOG NUMBER: SA2XXDIP-C675D530U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	711.3	711.3	711.3	711.3	711.3	711.3	711.3	711.3
2.5°	709.0	709.9	710.8	711.1	710.7	710.4	710.0	709.7
5°	706.9	708.2	709.6	710.2	709.9	709.7	709.5	709.2
7.5°	703.5	705.2	706.8	707.5	707.3	707.0	706.8	706.6
10°	700.5	702.4	704.3	705.0	704.8	704.6	704.4	704.1
12.5°	695.6	697.4	699.3	700.0	699.8	699.6	699.4	699.1
15°	686.6	688.6	690.7	691.7	691.5	691.2	690.9	690.7
17.5°	675.0	677.2	679.3	680.4	680.4	680.4	680.4	680.4
20°	665.9	668.4	670.9	672.2	672.2	672.2	672.2	672.2
22.5°	656.0	658.5	661.0	662.5	662.8	663.2	663.6	663.9
25°	640.6	643.3	646.0	647.7	648.4	649.1	649.8	650.6
27.5°	623.5	626.9	630.5	632.4	632.9	633.4	633.9	634.4
30°	611.5	615.1	618.7	621.0	621.7	622.4	623.0	623.7
32.5°	598.5	602.8	606.9	609.7	611.0	612.2	613.4	614.6
35°	580.2	585.2	590.3	593.6	595.2	596.8	598.3	600.0
37.5°	561.3	566.8	572.5	576.1	577.8	579.5	581.2	582.9
40°	548.0	553.9	559.9	563.9	565.9	568.0	570.1	572.2
42.5°	535.0	541.6	548.1	552.4	554.4	556.5	558.6	560.6
45°	515.2	522.3	529.5	534.1	536.4	538.8	541.0	543.3
47.5°	494.6	502.1	509.5	514.4	516.9	519.5	522.0	524.5
50°	480.5	488.3	496.1	501.3	503.8	506.3	508.8	511.3
52.5°	465.2	473.2	481.2	486.6	489.2	491.9	494.6	497.4
55°	442.2	450.5	458.8	464.3	467.4	470.3	473.3	476.3
57.5°	418.0	426.9	435.8	441.7	444.7	447.8	450.8	453.8
60°	401.9	410.6	419.4	425.4	428.5	431.7	434.9	438.2
62.5°	384.9	394.2	403.4	409.6	412.5	415.6	418.6	421.6
65°	359.0	368.4	377.8	384.0	387.0	389.9	392.9	395.9
67.5°	332.8	342.2	351.7	358.1	361.1	364.3	367.4	370.5
70°	314.6	324.4	334.3	340.5	343.3	346.1	348.8	351.5
72.5°	296.9	306.5	316.2	322.7	326.0	329.3	332.5	335.9
75°	270.2	280.0	289.9	296.3	299.3	302.3	305.3	308.2
77.5°	244.2	254.0	263.8	270.2	273.5	276.7	279.8	283.1
80°	226.4	236.1	245.7	252.2	255.3	258.5	261.8	265.0
82.5°	210.0	219.5	229.2	235.5	238.5	241.6	244.6	247.6
85°	186.2	195.9	205.5	211.9	215.1	218.3	221.6	224.7
87.5°	168.6	178.1	187.6	193.8	196.8	199.8	202.8	205.7
90°	166.1	175.9	185.6	192.0	195.0	197.9	201.0	203.9
92.5°	159.5	168.7	178.0	184.1	187.0	189.9	192.8	195.7
95°	157.7	167.0	176.3	182.3	184.9	187.5	190.2	192.8
97.5°	155.1	164.0	173.0	178.8	181.7	184.6	187.4	190.3
100°	152.0	161.4	170.8	176.8	179.7	182.4	185.1	187.9
102.5°	147.2	156.7	166.2	172.4	175.3	178.1	181.0	183.8
105°	139.5	148.8	158.0	164.2	167.1	170.2	173.2	176.1
107.5°	137.9	144.4	150.8	155.4	158.4	161.4	164.4	167.4
110°	158.8	154.3	150.0	149.3	152.3	155.2	158.2	161.2



TEST NUMBER: P331342-840

CATALOG NUMBER: SA2XXDIP-C675D530U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	231.4	195.9	160.6	144.3	147.1	150.1	153.0	155.8
115°	292.4	245.0	197.6	171.0	165.1	159.2	153.3	147.3
117.5°	400.9	394.6	388.2	372.3	347.0	321.6	296.3	270.8
120°	450.4	458.2	466.1	463.3	450.0	436.8	423.4	410.1
122.5°	468.9	475.9	483.0	486.0	485.1	484.2	483.3	482.4
125°	494.4	501.4	508.4	513.1	515.5	518.0	520.4	522.8
127.5°	517.5	524.3	531.3	535.7	537.9	539.9	542.0	544.1
130°	532.2	539.0	545.7	550.0	551.7	553.4	555.1	556.8
132.5°	546.3	552.7	559.2	563.2	564.9	566.6	568.4	570.1
135°	566.6	572.6	578.7	582.4	584.0	585.6	587.2	588.9
137.5°	585.2	590.7	596.0	599.3	600.4	601.6	602.7	603.9
140°	597.5	602.3	607.0	609.8	610.6	611.3	612.1	612.9
142.5°	609.9	613.7	617.6	619.9	620.5	621.1	621.7	622.3
145°	627.8	630.1	632.3	633.6	634.2	634.7	635.3	635.8
147.5°	644.2	645.0	645.8	646.2	646.3	646.3	646.4	646.5
150°	655.4	656.1	656.8	656.9	656.3	655.7	655.1	654.6
152.5°	666.0	666.7	667.4	667.3	666.6	665.8	665.0	664.3
155°	680.2	681.0	681.7	681.5	680.5	679.6	678.7	677.7
157.5°	692.2	693.0	693.8	693.8	692.8	691.9	690.9	690.0
160°	699.1	699.8	700.5	700.5	699.7	698.9	698.0	697.2
162.5°	705.7	706.5	707.3	707.2	706.2	705.2	704.2	703.2
165°	713.7	714.5	715.3	715.3	714.5	713.7	712.9	712.0
167.5°	720.2	721.1	722.0	721.9	720.7	719.7	718.6	717.6
170°	723.7	724.5	725.3	725.2	724.1	723.1	722.1	720.9
172.5°	726.2	727.0	727.8	727.7	726.7	725.6	724.6	723.5
175°	728.9	729.7	730.5	730.4	729.2	728.0	726.9	725.7
177.5°	729.2	729.9	730.5	730.4	729.6	728.7	727.9	727.1
180°	728.3	728.3	728.3	728.3	728.3	728.3	728.3	728.3

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