

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: P331342-935

Luminaire Tested: **SA2XXDIP-C675D530U935-4F0-1E-UDD-D**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P331342-935  
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-C675D530U935-4F0-1E-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**

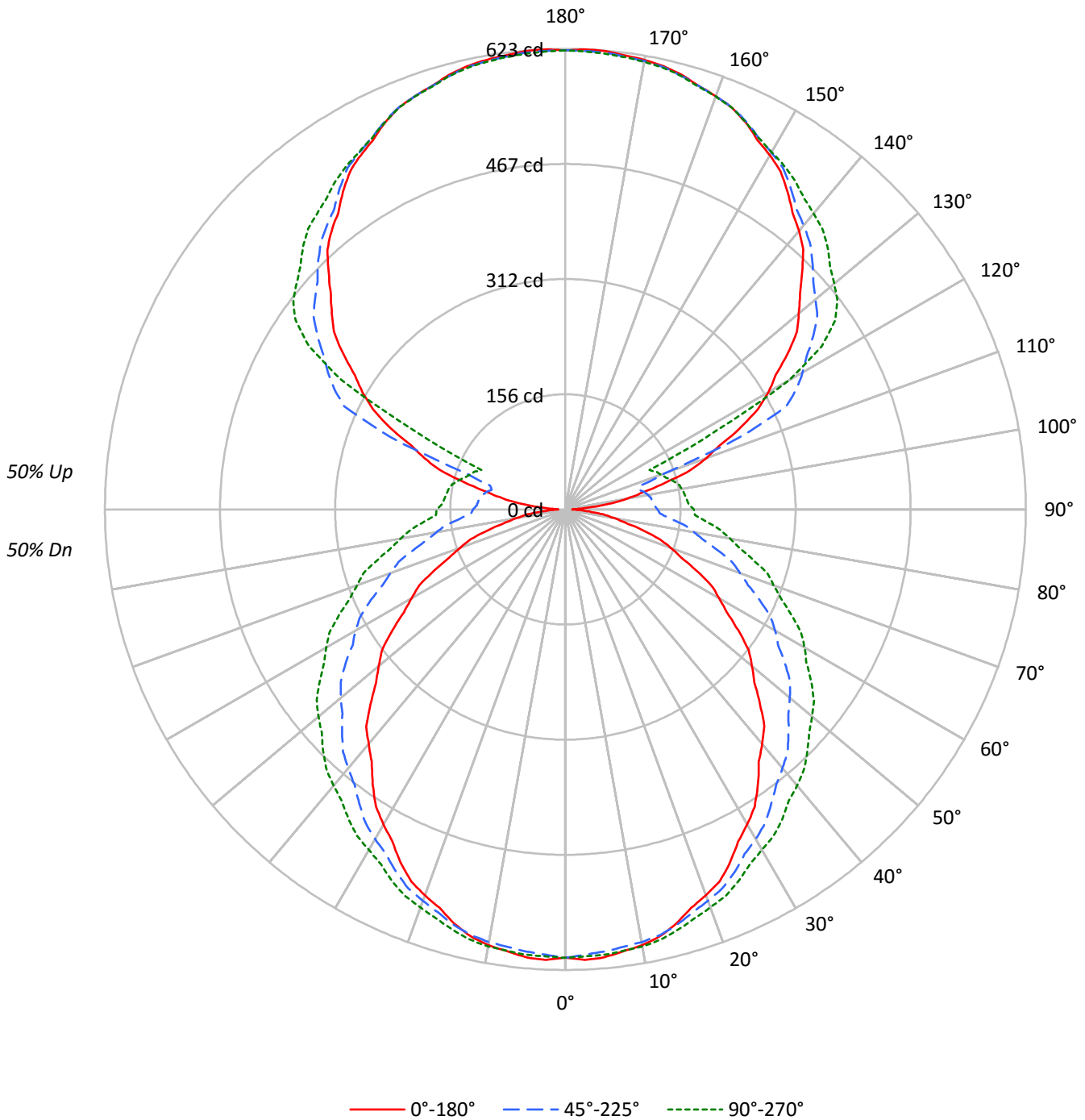
Lumens per Lamp: N/A  
Luminaire Lumens: 4135.1 lumens  
Efficiency: N/A  
Efficacy: 102.6 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')  
CIE Type: General Diffuse

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



TEST NUMBER: P331342-935  
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### Luminous Intensity Polar Plot





TEST NUMBER: P331342-935

CATALOG NUMBER: SA2XXDIP-C675D530U935-4F0-1E-UDD-D

**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°	9792	9792	9792
5°	9839	9426	9390
10°	9778	9148	9044
15°	9643	8853	8681
20°	9473	8536	8331
25°	9305	8231	8014
30°	9067	7919	7694
35°	8828	7615	7468
40°	8576	7358	7243
45°	8334	7127	7051
50°	8078	6920	6861
55°	7810	6696	6668
60°	7480	6465	6465
65°	7135	6192	6222
70°	6751	5899	5960
75°	6257	5612	5720
80°	5488	5319	5476
85°	4743	5064	5286



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.5	1.4
10°-20°	164.8	4.0
20°-30°	249.7	6.0
30°-40°	304.2	7.4
40°-50°	327.2	7.9
50°-60°	317.8	7.7
60°-70°	277.5	6.7
70°-80°	213.6	5.2
80°-90°	144.9	3.5
90°-100°	119.5	2.9
100°-110°	148.1	3.6
110°-120°	250.7	6.1
120°-130°	361.8	8.7
130°-140°	367.6	8.9
140°-150°	333.3	8.1
150°-160°	266.4	6.4
160°-170°	171.7	4.2
170°-180°	59.1	1.4
0°-30°	472.0	11.4
0°-40°	776.1	18.8
0°-60°	1421.1	34.4
0°-90°	2057.1	49.7
90°-120°	518.3	12.5
90°-150°	1580.9	38.2
90°-180°	2078.0	50.3
0°-180°	4135.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	606	606	606	606	606	
5°	608	605	600	605	605	58
15°	580	582	582	589	589	163
25°	527	534	541	552	555	242
35°	454	469	486	505	512	284
45°	373	397	427	453	463	288
55°	286	318	363	394	406	255
65°	195	239	290	325	338	194
75°	108	158	214	250	263	114
85°	32	86	142	178	192	34
90°	9	65	125	161	174	7
95°	36	64	119	153	164	41
105°	141	174	103	137	150	151
115°	262	281	330	157	126	258
125°	367	375	410	435	446	327
135°	453	460	473	495	502	350
145°	524	524	532	540	542	328
155°	577	574	579	581	578	266
165°	608	606	607	610	607	172
175°	622	619	620	623	619	59
180°	621	621	621	621	621	



TEST NUMBER: P331342-935

CATALOG NUMBER: SA2XXDIP-C675D530U935-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	606.5	606.5	606.5	606.5	606.5	606.5	606.5	606.5	606.5	606.5	606.5
2.5°	610.0	609.5	609.1	608.6	608.1	607.3	606.2	605.1	604.1	603.0	603.7
5°	608.2	607.6	607.1	606.5	605.9	605.0	603.8	602.7	601.5	600.3	601.5
7.5°	602.8	602.4	602.0	601.6	601.2	600.5	599.7	598.7	597.9	597.0	598.4
10°	598.6	598.1	597.8	597.4	597.0	596.5	595.9	595.4	594.8	594.2	595.7
12.5°	591.5	591.6	591.7	591.8	591.9	591.7	591.2	590.8	590.4	590.0	591.5
15°	580.1	580.5	580.9	581.3	581.7	581.9	581.9	581.9	581.9	581.9	583.6
17.5°	565.3	566.2	567.0	567.8	568.6	569.4	570.0	570.6	571.2	571.9	573.7
20°	555.5	556.5	557.4	558.4	559.4	560.3	561.0	561.9	562.7	563.4	565.6
22.5°	544.9	546.0	547.3	548.4	549.5	550.6	551.7	552.8	553.9	555.0	557.2
25°	527.4	528.7	530.1	531.5	532.9	534.4	536.1	538.0	539.7	541.4	543.8
27.5°	506.3	508.5	510.7	513.0	515.2	517.4	519.4	521.5	523.6	525.6	528.6
30°	492.2	494.7	497.3	499.8	502.4	504.9	507.5	510.0	512.6	515.1	518.1
32.5°	476.7	479.6	482.4	485.3	488.2	491.1	494.1	497.1	500.1	503.1	506.7
35°	454.4	457.7	461.1	464.3	467.7	471.2	474.9	478.6	482.3	486.0	490.3
37.5°	430.2	434.0	437.8	441.6	445.5	449.8	454.6	459.4	464.2	469.0	473.8
40°	414.0	418.3	422.6	426.9	431.2	435.9	441.3	446.5	451.8	457.0	462.1
42.5°	398.6	402.8	407.1	411.4	415.7	420.9	427.0	433.0	439.0	445.1	450.6
45°	372.6	378.0	383.2	388.5	393.7	399.8	406.7	413.5	420.3	427.1	433.3
47.5°	347.2	352.9	358.7	364.4	370.1	377.0	385.0	393.0	401.1	409.1	415.4
50°	329.6	335.7	341.7	347.8	353.8	361.3	370.1	378.8	387.6	396.4	403.0
52.5°	312.7	319.1	325.5	331.8	338.2	346.0	355.2	364.5	373.8	383.1	389.9
55°	285.7	292.7	299.7	306.8	313.7	322.4	332.5	342.7	352.8	363.0	370.1
57.5°	258.9	266.9	274.8	282.8	290.7	299.8	310.1	320.5	330.9	341.2	348.8
60°	240.0	248.3	256.8	265.2	273.5	283.4	294.5	305.6	316.7	327.9	335.3
62.5°	223.1	231.8	240.5	249.2	258.0	267.9	279.0	290.1	301.3	312.4	320.3
65°	195.1	204.7	214.3	223.9	233.4	243.9	255.5	267.0	278.5	290.1	298.1
67.5°	169.4	179.4	189.5	199.5	209.5	220.3	232.1	243.9	255.7	267.5	275.6
70°	151.2	161.4	171.5	181.7	191.8	202.9	215.1	227.1	239.3	251.4	259.8
72.5°	134.3	144.7	155.2	165.7	176.2	187.5	199.8	212.1	224.4	236.6	244.9
75°	108.1	119.1	130.0	140.9	151.9	163.6	176.1	188.6	201.0	213.6	222.0
77.5°	82.8	94.3	105.7	117.1	128.5	140.7	153.3	166.1	178.7	191.4	199.8
80°	66.0	77.8	89.7	101.7	113.6	125.9	138.6	151.3	163.9	176.7	184.9
82.5°	51.8	63.6	75.3	87.1	98.9	111.2	124.1	136.9	149.7	162.6	170.8
85°	31.7	43.7	55.9	67.9	80.1	92.4	104.9	117.4	129.9	142.4	150.6
87.5°	17.3	29.2	41.1	52.9	64.7	77.1	89.7	102.4	115.0	127.7	135.7
90°	9.2	21.7	34.1	46.5	59.0	71.8	85.2	98.4	111.7	125.0	133.3
92.5°	17.1	27.6	38.1	48.5	59.0	70.4	82.8	95.2	107.7	120.1	128.0
95°	36.2	42.1	48.0	53.9	59.8	69.0	81.4	93.8	106.2	118.6	126.6
97.5°	64.1	63.0	61.9	60.8	59.7	65.5	78.4	91.3	104.1	117.0	124.6
100°	85.7	79.2	72.8	66.3	59.8	62.9	75.6	88.3	100.9	113.5	121.6
102.5°	108.7	112.4	116.1	119.9	123.6	123.6	120.0	116.5	112.9	109.3	117.4
105°	141.0	149.6	158.3	166.9	175.6	171.4	154.3	137.2	120.1	103.0	110.9
107.5°	178.8	185.8	192.7	199.7	206.6	198.6	175.6	152.7	129.8	106.8	112.2
110°	202.6	208.5	214.6	220.6	226.6	219.9	200.6	181.3	162.0	142.8	139.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	225.6	230.7	235.8	241.0	246.2	249.7	251.7	253.7	255.6	257.6	227.4
115°	261.9	265.7	269.6	273.5	277.2	284.8	296.1	307.4	318.7	329.9	289.6
117.5°	293.4	296.8	300.1	303.3	306.7	313.2	323.0	332.9	342.8	352.6	347.2
120°	317.2	319.4	321.8	324.0	326.3	332.3	341.8	351.5	361.0	370.7	377.4
122.5°	337.3	339.1	341.0	342.9	344.8	350.4	359.7	369.0	378.3	387.6	393.6
125°	367.0	368.3	369.6	370.9	372.3	376.9	385.1	393.3	401.4	409.6	415.5
127.5°	394.9	396.1	397.4	398.6	399.8	403.6	410.1	416.6	423.0	429.5	435.3
130°	412.4	413.9	415.3	416.6	418.0	421.4	426.5	431.8	437.0	442.1	448.0
132.5°	430.4	431.6	432.7	433.9	435.1	437.8	442.0	446.3	450.6	454.9	460.3
135°	452.9	454.5	456.1	457.7	459.3	461.5	464.3	467.3	470.1	472.9	478.0
137.5°	476.6	477.6	478.7	479.7	480.9	482.3	484.2	486.1	487.9	489.8	494.4
140°	492.0	492.6	493.2	493.8	494.4	495.4	497.0	498.4	499.9	501.4	505.4
142.5°	505.0	505.5	506.0	506.5	507.0	508.0	509.3	510.7	512.0	513.3	516.6
145°	524.3	524.3	524.2	524.1	524.0	524.8	526.5	528.1	529.9	531.6	533.4
147.5°	542.1	541.7	541.3	541.0	540.5	541.2	542.9	544.6	546.2	547.9	548.6
150°	553.5	552.8	552.2	551.5	550.8	551.2	552.8	554.4	556.0	557.6	558.2
152.5°	563.3	562.5	561.7	560.9	560.2	560.5	562.1	563.6	565.1	566.6	567.2
155°	577.4	576.5	575.6	574.7	573.8	573.9	575.1	576.4	577.6	578.8	579.4
157.5°	588.4	587.7	586.9	586.2	585.4	585.5	586.3	587.1	588.0	588.8	589.4
160°	595.0	594.3	593.7	593.1	592.5	592.5	593.1	593.7	594.3	595.0	595.6
162.5°	600.6	600.0	599.4	598.8	598.3	598.2	598.7	599.3	599.8	600.3	601.0
165°	608.4	607.8	607.2	606.6	606.0	605.9	606.1	606.4	606.7	607.0	607.8
167.5°	614.2	613.5	612.9	612.3	611.7	611.6	611.8	612.2	612.4	612.7	613.4
170°	617.3	616.8	616.2	615.6	615.0	614.8	615.0	615.2	615.4	615.6	616.3
172.5°	619.6	619.0	618.4	617.8	617.2	616.9	617.2	617.3	617.5	617.8	618.5
175°	622.3	621.6	621.0	620.3	619.5	619.3	619.5	619.7	619.8	620.1	620.8
177.5°	622.8	622.2	621.6	621.1	620.5	620.3	620.4	620.4	620.5	620.6	621.2
180°	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	606.5	606.5	606.5	606.5	606.5	606.5	606.5	606.5
2.5°	604.5	605.3	606.1	606.3	606.0	605.7	605.4	605.1
5°	602.7	603.8	605.0	605.5	605.3	605.1	604.9	604.7
7.5°	599.8	601.2	602.6	603.2	603.0	602.8	602.6	602.4
10°	597.3	598.8	600.5	601.1	600.9	600.7	600.5	600.3
12.5°	593.1	594.6	596.2	596.8	596.7	596.5	596.3	596.1
15°	585.4	587.1	588.9	589.7	589.5	589.3	589.1	588.9
17.5°	575.5	577.4	579.2	580.1	580.1	580.1	580.1	580.1
20°	567.7	569.9	572.0	573.1	573.1	573.1	573.1	573.1
22.5°	559.3	561.5	563.5	564.8	565.1	565.4	565.8	566.0
25°	546.1	548.5	550.8	552.2	552.8	553.5	554.1	554.7
27.5°	531.6	534.5	537.5	539.2	539.6	540.0	540.4	540.9
30°	521.3	524.4	527.5	529.4	530.0	530.6	531.2	531.8
32.5°	510.3	513.9	517.5	519.8	520.9	521.9	523.0	524.0
35°	494.6	498.9	503.3	506.1	507.5	508.9	510.1	511.5
37.5°	478.5	483.3	488.1	491.2	492.7	494.0	495.5	497.0
40°	467.2	472.3	477.3	480.8	482.5	484.3	486.0	487.8
42.5°	456.2	461.8	467.3	471.0	472.7	474.5	476.2	477.9
45°	439.3	445.3	451.4	455.4	457.4	459.3	461.2	463.2
47.5°	421.7	428.1	434.4	438.6	440.7	442.9	445.1	447.2
50°	409.7	416.3	423.0	427.4	429.6	431.7	433.8	435.9
52.5°	396.7	403.5	410.3	414.8	417.1	419.4	421.7	424.0
55°	377.0	384.1	391.2	395.9	398.5	401.0	403.6	406.0
57.5°	356.4	363.9	371.5	376.6	379.2	381.8	384.4	386.9
60°	342.7	350.1	357.6	362.7	365.3	368.1	370.8	373.6
62.5°	328.1	336.0	344.0	349.2	351.7	354.3	356.9	359.5
65°	306.1	314.1	322.1	327.4	329.9	332.4	335.0	337.5
67.5°	283.7	291.8	299.9	305.3	307.9	310.6	313.2	315.9
70°	268.2	276.6	285.0	290.3	292.7	295.1	297.4	299.7
72.5°	253.1	261.3	269.6	275.1	277.9	280.8	283.5	286.4
75°	230.4	238.8	247.2	252.6	255.2	257.7	260.3	262.8
77.5°	208.2	216.5	224.9	230.4	233.2	235.9	238.6	241.3
80°	193.0	201.3	209.5	215.0	217.7	220.4	223.2	225.9
82.5°	179.0	187.2	195.4	200.8	203.4	206.0	208.5	211.1
85°	158.8	167.0	175.2	180.6	183.4	186.1	188.9	191.6
87.5°	143.8	151.9	160.0	165.2	167.8	170.3	172.9	175.4
90°	141.6	150.0	158.3	163.7	166.3	168.8	171.3	173.8
92.5°	136.0	143.9	151.8	157.0	159.5	161.9	164.4	166.9
95°	134.5	142.4	150.3	155.4	157.6	159.9	162.1	164.4
97.5°	132.2	139.8	147.5	152.5	154.9	157.4	159.8	162.2
100°	129.6	137.6	145.6	150.8	153.2	155.5	157.8	160.2
102.5°	125.5	133.6	141.7	147.0	149.5	151.9	154.3	156.7
105°	118.9	126.8	134.7	140.0	142.5	145.1	147.7	150.2
107.5°	117.6	123.1	128.5	132.5	135.1	137.6	140.2	142.8
110°	135.3	131.6	127.9	127.3	129.8	132.3	134.9	137.4





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CATALOG NUMBER: SA2XXDIP-C675D530U935-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	197.3	167.0	136.9	123.0	125.4	127.9	130.4	132.9
115°	249.3	208.9	168.5	145.8	140.8	135.7	130.7	125.6
117.5°	341.8	336.4	331.0	317.5	295.8	274.2	252.6	230.9
120°	384.0	390.6	397.4	395.0	383.7	372.4	361.0	349.7
122.5°	399.8	405.8	411.8	414.4	413.6	412.8	412.1	411.3
125°	421.5	427.5	433.4	437.5	439.5	441.6	443.7	445.7
127.5°	441.2	447.0	453.0	456.8	458.6	460.3	462.1	463.9
130°	453.7	459.5	465.3	468.9	470.4	471.8	473.3	474.8
132.5°	465.8	471.2	476.7	480.2	481.6	483.1	484.6	486.0
135°	483.1	488.2	493.4	496.5	497.9	499.3	500.7	502.0
137.5°	498.9	503.6	508.2	510.9	511.9	512.9	513.8	514.9
140°	509.5	513.5	517.5	519.9	520.6	521.2	521.9	522.5
142.5°	520.0	523.2	526.6	528.5	529.0	529.5	530.0	530.5
145°	535.3	537.2	539.1	540.2	540.7	541.1	541.7	542.1
147.5°	549.2	549.9	550.6	551.0	551.0	551.0	551.1	551.2
150°	558.8	559.4	560.0	560.1	559.6	559.0	558.5	558.1
152.5°	567.8	568.4	569.0	568.9	568.3	567.7	567.0	566.4
155°	580.0	580.6	581.2	581.0	580.2	579.5	578.7	577.8
157.5°	590.1	590.8	591.5	591.5	590.6	589.9	589.1	588.3
160°	596.1	596.7	597.3	597.3	596.6	595.9	595.1	594.4
162.5°	601.7	602.4	603.0	603.0	602.1	601.2	600.4	599.5
165°	608.5	609.2	609.8	609.8	609.2	608.5	607.8	607.0
167.5°	614.1	614.8	615.5	615.4	614.5	613.6	612.7	611.8
170°	617.0	617.7	618.4	618.3	617.3	616.5	615.6	614.7
172.5°	619.1	619.8	620.5	620.4	619.6	618.6	617.8	616.8
175°	621.5	622.2	622.8	622.8	621.7	620.7	619.7	618.7
177.5°	621.7	622.3	622.8	622.8	622.1	621.3	620.6	619.9
180°	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0

(END OF REPORT)