

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: P331342-930

Luminaire Tested: **SA2XXDIP-C675D530U930-4F0-1E-UDD-D**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331342-930
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-C675D530U930-4F0-1E-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

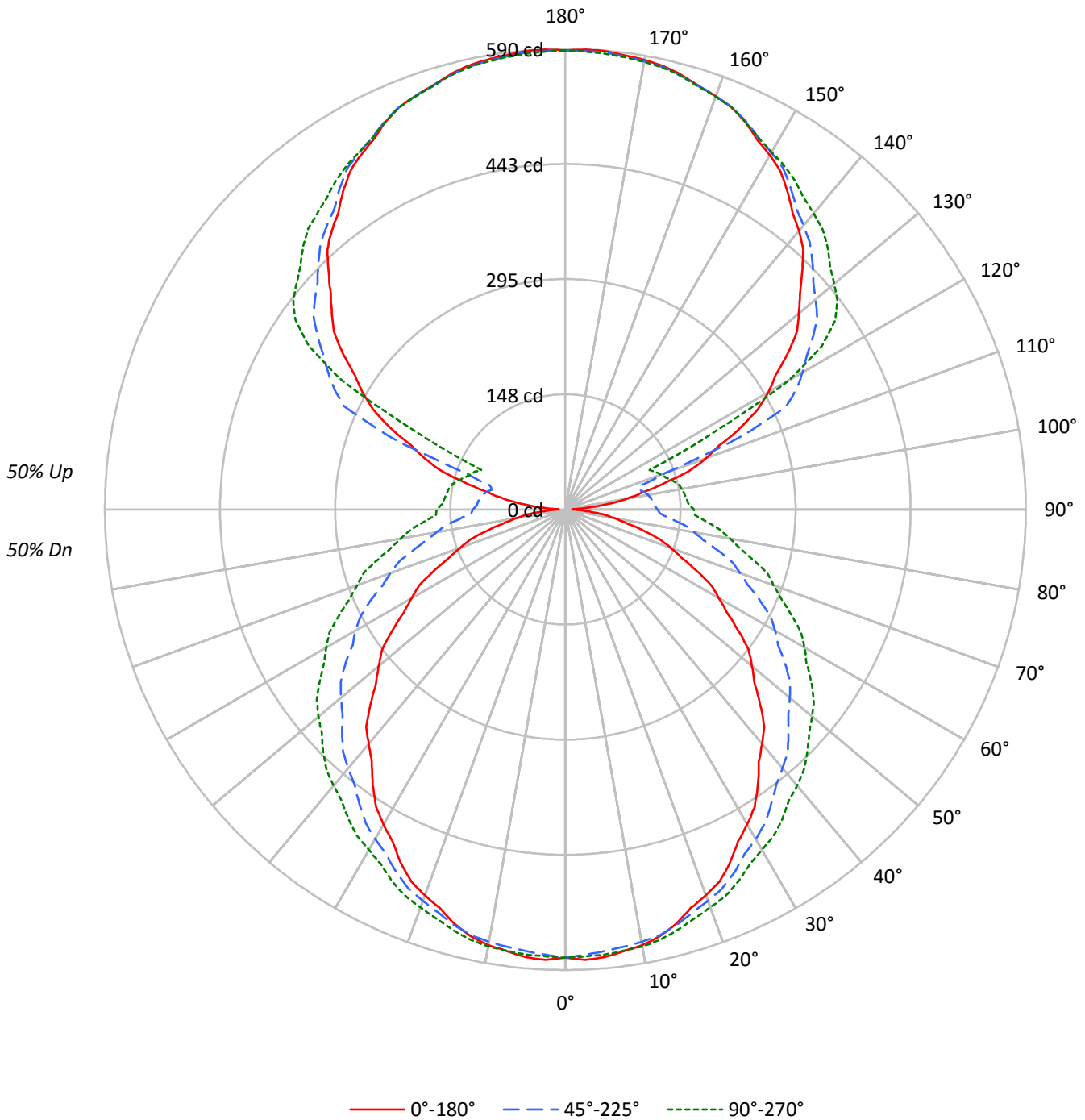
Lumens per Lamp: N/A
Luminaire Lumens: 3915.6 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: General Diffuse

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									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	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°	9273	9273	9273
5°	9317	8925	8891
10°	9259	8661	8564
15°	9131	8383	8221
20°	8970	8083	7889
25°	8811	7795	7587
30°	8587	7498	7284
35°	8359	7211	7072
40°	8120	6969	6858
45°	7894	6750	6677
50°	7650	6553	6497
55°	7394	6340	6314
60°	7081	6122	6123
65°	6755	5864	5892
70°	6394	5587	5644
75°	5927	5315	5415
80°	5197	5036	5185
85°	4489	4797	5004



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.4	1.4
10°-20°	156.0	4.0
20°-30°	236.5	6.0
30°-40°	288.0	7.4
40°-50°	309.9	7.9
50°-60°	300.9	7.7
60°-70°	262.7	6.7
70°-80°	202.3	5.2
80°-90°	137.2	3.5
90°-100°	113.1	2.9
100°-110°	140.2	3.6
110°-120°	237.4	6.1
120°-130°	342.6	8.7
130°-140°	348.1	8.9
140°-150°	315.6	8.1
150°-160°	252.2	6.4
160°-170°	162.5	4.2
170°-180°	55.9	1.4
0°-30°	446.9	11.4
0°-40°	734.9	18.8
0°-60°	1345.7	34.4
0°-90°	1947.9	49.7
90°-120°	490.7	12.5
90°-150°	1497.0	38.2
90°-180°	1968.0	50.3
0°-180°	3915.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	574	574	574	574	574	
5°	576	573	568	573	573	55
15°	549	551	551	558	558	155
25°	499	505	513	522	525	229
35°	430	445	460	478	484	269
45°	353	376	404	429	439	272
55°	270	301	344	373	384	242
65°	185	226	275	308	320	183
75°	102	149	202	237	249	108
85°	30	82	135	168	181	32
90°	9	62	118	152	165	7
95°	34	61	112	145	156	39
105°	134	164	98	130	142	143
115°	248	266	312	149	119	244
125°	348	355	388	412	422	310
135°	429	436	448	469	475	331
145°	496	497	503	511	513	311
155°	547	543	548	550	547	252
165°	576	574	575	578	575	163
175°	589	586	587	590	586	56
180°	588	588	588	588	588	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	574.3	574.3	574.3	574.3	574.3	574.3	574.3	574.3	574.3	574.3	574.3
2.5°	577.6	577.2	576.7	576.3	575.8	575.1	574.1	573.0	572.0	571.0	571.7
5°	575.9	575.4	574.9	574.3	573.7	572.9	571.8	570.7	569.6	568.4	569.6
7.5°	570.8	570.4	570.1	569.6	569.3	568.7	567.9	567.0	566.1	565.3	566.6
10°	566.8	566.4	566.1	565.7	565.3	564.8	564.3	563.8	563.2	562.6	564.1
12.5°	560.1	560.2	560.3	560.4	560.4	560.3	559.9	559.5	559.1	558.6	560.1
15°	549.3	549.7	550.1	550.4	550.8	551.0	551.0	551.0	551.0	551.0	552.6
17.5°	535.3	536.1	536.9	537.7	538.4	539.2	539.7	540.3	540.9	541.5	543.2
20°	526.0	526.9	527.8	528.8	529.7	530.5	531.2	532.1	532.8	533.5	535.6
22.5°	516.0	517.1	518.2	519.3	520.3	521.4	522.4	523.4	524.5	525.5	527.6
25°	499.4	500.7	502.0	503.3	504.6	506.1	507.7	509.4	511.0	512.7	514.9
27.5°	479.4	481.5	483.6	485.8	487.9	489.9	491.9	493.8	495.8	497.7	500.5
30°	466.1	468.5	470.9	473.3	475.7	478.1	480.5	482.9	485.3	487.7	490.6
32.5°	451.4	454.1	456.8	459.5	462.3	465.0	467.9	470.7	473.5	476.4	479.8
35°	430.3	433.4	436.6	439.7	442.9	446.2	449.7	453.2	456.7	460.2	464.3
37.5°	407.3	411.0	414.6	418.2	421.8	425.9	430.5	435.0	439.5	444.1	448.7
40°	392.0	396.1	400.1	404.2	408.3	412.8	417.8	422.8	427.8	432.8	437.6
42.5°	377.4	381.4	385.5	389.6	393.6	398.5	404.3	410.0	415.7	421.5	426.7
45°	352.9	357.9	362.9	367.9	372.8	378.6	385.1	391.6	398.0	404.5	410.3
47.5°	328.7	334.2	339.7	345.0	350.5	357.0	364.6	372.2	379.8	387.3	393.4
50°	312.1	317.9	323.6	329.3	335.0	342.1	350.4	358.7	367.0	375.4	381.6
52.5°	296.1	302.1	308.2	314.2	320.2	327.7	336.4	345.2	353.9	362.7	369.2
55°	270.5	277.1	283.8	290.5	297.1	305.2	314.9	324.5	334.1	343.7	350.4
57.5°	245.2	252.7	260.2	267.7	275.2	283.9	293.7	303.5	313.3	323.1	330.3
60°	227.2	235.1	243.1	251.1	259.0	268.3	278.8	289.3	299.9	310.5	317.5
62.5°	211.2	219.5	227.7	235.9	244.3	253.6	264.2	274.7	285.3	295.8	303.3
65°	184.7	193.8	202.9	212.0	221.0	231.0	241.9	252.8	263.7	274.7	282.3
67.5°	160.5	169.9	179.4	188.9	198.4	208.6	219.8	231.0	242.1	253.3	261.0
70°	143.2	152.8	162.4	172.0	181.6	192.2	203.7	215.1	226.6	238.1	246.0
72.5°	127.2	137.1	147.0	156.9	166.8	177.6	189.2	200.8	212.5	224.0	231.9
75°	102.4	112.8	123.1	133.5	143.8	154.9	166.7	178.6	190.4	202.3	210.2
77.5°	78.4	89.3	100.1	110.9	121.7	133.2	145.2	157.3	169.3	181.2	189.2
80°	62.5	73.7	85.0	96.3	107.5	119.2	131.3	143.2	155.2	167.3	175.0
82.5°	49.1	60.3	71.3	82.5	93.7	105.3	117.5	129.6	141.8	154.0	161.8
85°	30.0	41.4	52.9	64.3	75.8	87.5	99.3	111.1	123.0	134.9	142.6
87.5°	16.4	27.6	38.9	50.1	61.3	73.0	85.0	96.9	108.9	120.9	128.5
90°	8.7	20.5	32.3	44.0	55.8	68.0	80.6	93.2	105.7	118.4	126.2
92.5°	16.2	26.2	36.0	45.9	55.8	66.7	78.4	90.2	102.0	113.7	121.2
95°	34.3	39.9	45.5	51.0	56.6	65.3	77.0	88.8	100.5	112.3	119.8
97.5°	60.7	59.7	58.6	57.6	56.5	62.0	74.2	86.4	98.6	110.8	118.0
100°	81.1	75.0	68.9	62.8	56.7	59.6	71.6	83.6	95.6	107.5	115.1
102.5°	103.0	106.5	110.0	113.5	117.0	117.1	113.7	110.3	106.9	103.5	111.2
105°	133.5	141.7	149.9	158.1	166.3	162.3	146.1	130.0	113.7	97.5	105.0
107.5°	169.3	175.9	182.5	189.1	195.7	188.1	166.3	144.6	122.9	101.1	106.2
110°	191.8	197.5	203.2	208.9	214.6	208.2	190.0	171.7	153.4	135.2	131.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	213.6	218.5	223.3	228.2	233.1	236.4	238.3	240.2	242.1	243.9	215.3
115°	248.0	251.6	255.3	258.9	262.5	269.7	280.4	291.1	301.7	312.4	274.3
117.5°	277.9	281.0	284.1	287.2	290.4	296.6	305.9	315.3	324.6	333.9	328.8
120°	300.4	302.5	304.7	306.8	309.0	314.6	323.7	332.8	341.9	351.0	357.3
122.5°	319.4	321.1	322.9	324.7	326.5	331.8	340.6	349.4	358.2	367.0	372.8
125°	347.6	348.8	350.0	351.2	352.5	356.9	364.7	372.4	380.1	387.8	393.5
127.5°	373.9	375.0	376.3	377.4	378.5	382.2	388.3	394.4	400.6	406.7	412.2
130°	390.5	391.9	393.2	394.5	395.8	399.0	403.9	408.9	413.8	418.7	424.2
132.5°	407.6	408.7	409.8	410.9	412.0	414.6	418.6	422.7	426.6	430.7	435.9
135°	428.8	430.4	431.9	433.4	434.9	437.0	439.7	442.5	445.2	447.8	452.7
137.5°	451.3	452.2	453.3	454.3	455.3	456.7	458.5	460.3	462.0	463.8	468.1
140°	465.9	466.4	467.0	467.6	468.1	469.1	470.6	472.0	473.4	474.8	478.6
142.5°	478.2	478.7	479.2	479.6	480.1	481.0	482.2	483.6	484.8	486.1	489.2
145°	496.5	496.4	496.4	496.3	496.2	496.9	498.6	500.1	501.7	503.4	505.1
147.5°	513.3	512.9	512.6	512.3	511.8	512.5	514.0	515.7	517.2	518.9	519.5
150°	524.2	523.5	522.9	522.2	521.5	522.0	523.5	525.0	526.5	528.0	528.6
152.5°	533.4	532.6	531.9	531.2	530.4	530.8	532.2	533.7	535.1	536.5	537.1
155°	546.7	545.9	545.0	544.2	543.3	543.5	544.6	545.8	546.9	548.0	548.6
157.5°	557.2	556.5	555.8	555.1	554.3	554.4	555.1	556.0	556.8	557.6	558.2
160°	563.4	562.8	562.2	561.7	561.1	561.1	561.7	562.2	562.8	563.4	563.9
162.5°	568.8	568.2	567.6	567.0	566.6	566.5	567.0	567.4	567.9	568.4	569.1
165°	576.1	575.5	574.9	574.4	573.8	573.7	574.0	574.2	574.5	574.8	575.5
167.5°	581.6	581.0	580.4	579.8	579.3	579.1	579.4	579.7	579.9	580.2	580.8
170°	584.6	584.1	583.5	582.9	582.4	582.1	582.4	582.5	582.7	582.9	583.6
172.5°	586.7	586.1	585.5	585.0	584.4	584.2	584.4	584.6	584.7	585.0	585.6
175°	589.3	588.6	588.0	587.3	586.6	586.4	586.6	586.8	586.9	587.2	587.8
177.5°	589.7	589.2	588.6	588.2	587.6	587.3	587.4	587.5	587.6	587.7	588.2
180°	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	574.3	574.3	574.3	574.3	574.3	574.3	574.3	574.3
2.5°	572.4	573.2	573.9	574.1	573.8	573.6	573.2	573.0
5°	570.7	571.8	572.9	573.4	573.2	573.0	572.8	572.6
7.5°	567.9	569.3	570.6	571.2	571.0	570.8	570.6	570.5
10°	565.6	567.0	568.6	569.2	569.0	568.8	568.7	568.4
12.5°	561.6	563.0	564.6	565.2	565.0	564.8	564.7	564.4
15°	554.3	556.0	557.7	558.4	558.2	558.0	557.8	557.7
17.5°	544.9	546.7	548.5	549.3	549.3	549.3	549.3	549.3
20°	537.6	539.6	541.6	542.7	542.7	542.7	542.7	542.7
22.5°	529.6	531.7	533.6	534.8	535.1	535.4	535.7	536.0
25°	517.1	519.3	521.5	522.9	523.5	524.1	524.6	525.2
27.5°	503.4	506.1	509.0	510.5	510.9	511.4	511.8	512.2
30°	493.7	496.6	499.5	501.3	501.9	502.5	503.0	503.5
32.5°	483.2	486.7	490.0	492.2	493.3	494.2	495.2	496.2
35°	468.4	472.5	476.5	479.2	480.5	481.8	483.1	484.4
37.5°	453.1	457.6	462.2	465.1	466.5	467.8	469.2	470.6
40°	442.4	447.2	452.0	455.3	456.9	458.6	460.2	461.9
42.5°	431.9	437.2	442.5	446.0	447.6	449.3	450.9	452.6
45°	416.0	421.7	427.5	431.2	433.1	435.0	436.8	438.6
47.5°	399.3	405.4	411.3	415.3	417.4	419.4	421.4	423.5
50°	387.9	394.2	400.6	404.7	406.8	408.8	410.7	412.8
52.5°	375.6	382.0	388.5	392.8	394.9	397.1	399.3	401.5
55°	357.0	363.7	370.4	374.9	377.3	379.7	382.1	384.5
57.5°	337.5	344.6	351.8	356.6	359.1	361.5	363.9	366.4
60°	324.5	331.5	338.6	343.4	345.9	348.5	351.1	353.8
62.5°	310.7	318.2	325.7	330.7	333.0	335.5	337.9	340.4
65°	289.8	297.4	305.0	310.0	312.4	314.8	317.2	319.6
67.5°	268.6	276.3	284.0	289.1	291.6	294.1	296.6	299.1
70°	254.0	261.9	269.9	274.9	277.1	279.4	281.6	283.8
72.5°	239.7	247.4	255.3	260.5	263.2	265.9	268.5	271.2
75°	218.2	226.1	234.1	239.2	241.7	244.0	246.5	248.8
77.5°	197.1	205.0	213.0	218.2	220.8	223.4	225.9	228.5
80°	182.8	190.6	198.4	203.6	206.1	208.7	211.3	213.9
82.5°	169.5	177.2	185.1	190.1	192.6	195.0	197.5	199.9
85°	150.3	158.2	165.9	171.0	173.7	176.3	178.9	181.4
87.5°	136.2	143.8	151.5	156.5	158.9	161.3	163.7	166.1
90°	134.1	142.0	149.9	155.0	157.4	159.8	162.2	164.6
92.5°	128.7	136.2	143.7	148.6	151.0	153.3	155.6	158.0
95°	127.3	134.9	142.4	147.2	149.3	151.4	153.5	155.6
97.5°	125.2	132.4	139.7	144.4	146.7	149.0	151.3	153.6
100°	122.7	130.3	137.9	142.8	145.0	147.2	149.4	151.7
102.5°	118.9	126.5	134.2	139.2	141.5	143.8	146.1	148.4
105°	112.6	120.1	127.6	132.6	134.9	137.4	139.8	142.2
107.5°	111.4	116.6	121.7	125.5	127.9	130.3	132.7	135.2
110°	128.2	124.6	121.1	120.5	122.9	125.3	127.8	130.1



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CATALOG NUMBER: SA2XXDIP-C675D530U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	186.8	158.2	129.6	116.5	118.8	121.2	123.5	125.8
115°	236.0	197.8	159.6	138.0	133.3	128.5	123.8	119.0
117.5°	323.7	318.5	313.4	300.6	280.1	259.7	239.2	218.7
120°	363.6	369.9	376.3	374.1	363.3	352.6	341.9	331.1
122.5°	378.5	384.3	390.0	392.4	391.7	390.9	390.2	389.5
125°	399.2	404.8	410.4	414.3	416.2	418.2	420.1	422.1
127.5°	417.8	423.3	428.9	432.5	434.2	435.9	437.6	439.3
130°	429.7	435.1	440.6	444.0	445.4	446.8	448.2	449.6
132.5°	441.1	446.2	451.4	454.7	456.1	457.5	458.9	460.2
135°	457.5	462.3	467.2	470.2	471.5	472.8	474.1	475.4
137.5°	472.5	476.9	481.2	483.8	484.7	485.7	486.6	487.5
140°	482.4	486.2	490.1	492.3	492.9	493.5	494.2	494.8
142.5°	492.4	495.5	498.6	500.4	500.9	501.4	501.9	502.4
145°	506.9	508.7	510.5	511.5	512.0	512.4	512.9	513.3
147.5°	520.1	520.7	521.4	521.7	521.8	521.8	521.9	522.0
150°	529.1	529.7	530.3	530.4	529.9	529.4	528.9	528.5
152.5°	537.7	538.3	538.8	538.7	538.2	537.5	536.9	536.3
155°	549.2	549.8	550.3	550.2	549.4	548.7	548.0	547.1
157.5°	558.8	559.5	560.1	560.1	559.3	558.6	557.8	557.1
160°	564.4	565.0	565.6	565.6	564.9	564.3	563.5	562.9
162.5°	569.7	570.4	571.0	571.0	570.1	569.3	568.5	567.7
165°	576.2	576.8	577.5	577.5	576.8	576.2	575.5	574.8
167.5°	581.5	582.2	582.9	582.8	581.9	581.1	580.2	579.4
170°	584.2	584.9	585.5	585.5	584.6	583.8	582.9	582.0
172.5°	586.3	586.9	587.6	587.5	586.7	585.8	585.0	584.1
175°	588.5	589.1	589.8	589.7	588.7	587.7	586.9	585.9
177.5°	588.7	589.3	589.8	589.7	589.1	588.3	587.7	587.0
180°	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0

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