

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: P332547-935

Luminaire Tested: **SA4XXDIP-C575D590U935-4F0-1E-UDD-D**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332547-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXDIP-C575D590U935-4F0-1E-UDD-D
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

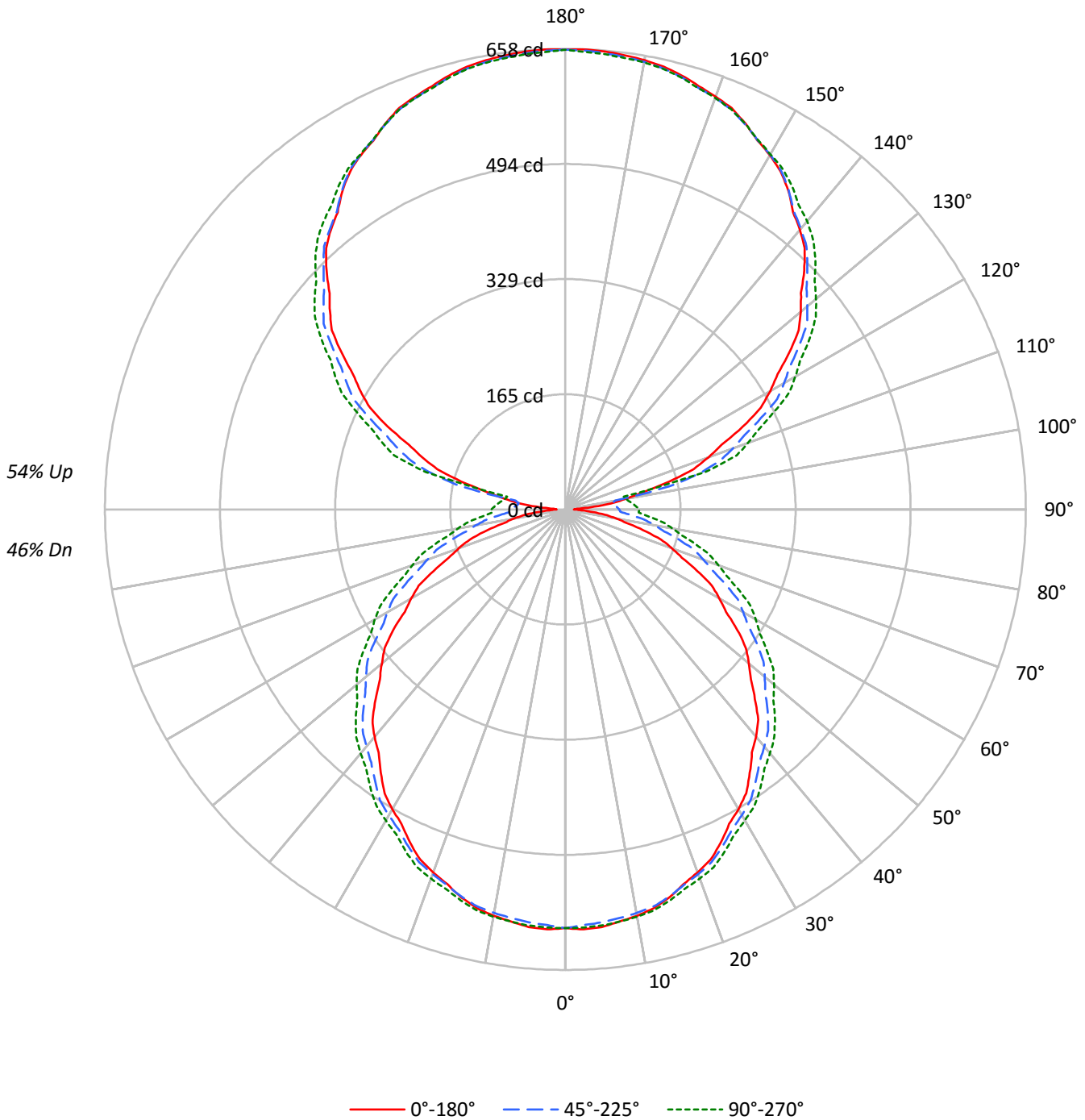
Lumens per Lamp: N/A
Luminaire Lumens: 4072.6 lumens
Efficiency: N/A
Efficacy: 124.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: General Diffuse

Input Watts (W): 32.8
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	106	106	106	106	98	98	98	98	81	81	81	66	66	66	53	53	53	46
1	96	91	87	83	88	84	80	77	70	67	65	57	55	53	45	44	43	37
2	87	79	73	67	79	73	67	62	61	56	53	49	46	44	39	37	35	30
3	79	69	62	55	72	64	57	52	53	48	44	43	40	37	34	32	29	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	28	25	21
5	66	54	46	40	60	50	43	37	42	36	32	34	30	27	27	24	22	18
6	61	48	40	34	56	45	37	32	38	32	28	31	27	23	25	21	19	16
7	56	44	36	30	51	40	33	28	34	28	24	28	24	20	23	19	17	14
8	52	40	32	26	48	37	30	25	31	25	21	26	21	18	21	17	15	12
9	48	36	28	23	44	33	27	22	28	23	19	24	19	16	19	16	13	11
10	45	33	26	21	41	31	24	20	26	21	17	22	18	15	18	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4830	4830	4830
5°	4845	4721	4734
10°	4816	4644	4639
15°	4772	4554	4529
20°	4707	4455	4422
25°	4634	4345	4302
30°	4555	4235	4181
35°	4464	4122	4074
40°	4393	4015	3964
45°	4286	3916	3867
50°	4195	3803	3767
55°	4102	3695	3648
60°	3957	3557	3541
65°	3798	3411	3409
70°	3603	3243	3253
75°	3334	3060	3114
80°	3035	2882	2977
85°	2656	2725	2896



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.7	1.4
10°-20°	162.3	4.0
20°-30°	245.5	6.0
30°-40°	297.0	7.3
40°-50°	314.0	7.7
50°-60°	295.5	7.3
60°-70°	245.2	6.0
70°-80°	172.2	4.2
80°-90°	99.2	2.4
90°-100°	80.3	2.0
100°-110°	186.0	4.6
110°-120°	302.7	7.4
120°-130°	363.9	8.9
130°-140°	379.1	9.3
140°-150°	349.3	8.6
150°-160°	280.6	6.9
160°-170°	181.0	4.4
170°-180°	62.4	1.5
0°-30°	464.5	11.4
0°-40°	761.4	18.7
0°-60°	1370.9	33.7
0°-90°	1887.5	46.3
90°-120°	568.9	14.0
90°-150°	1661.2	40.8
90°-180°	2185.0	53.7
0°-180°	4072.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	598	598	598	598	598	
5°	599	597	592	597	597	57
15°	574	575	573	578	578	162
25°	525	529	531	538	539	242
35°	460	468	474	483	486	288
45°	383	396	409	420	423	296
55°	300	314	334	347	352	267
65°	208	229	252	268	274	206
75°	115	140	168	186	193	123
85°	36	64	94	113	121	38
90°	12	44	77	99	106	8
95°	36	42	69	89	97	42
105°	154	171	197	217	206	161
115°	280	288	308	324	329	276
125°	391	393	408	421	426	349
135°	483	483	489	500	506	372
145°	556	556	556	561	565	347
155°	609	609	608	609	608	281
165°	642	640	640	643	639	181
175°	657	654	654	658	653	63
180°	657	657	657	657	657	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3
2.5°	600.5	600.1	599.8	599.3	599.0	598.4	597.4	596.5	595.5	594.5	595.4
5°	599.0	598.6	598.1	597.6	597.2	596.4	595.4	594.3	593.3	592.3	593.5
7.5°	593.9	593.6	593.3	593.1	592.8	592.3	591.4	590.6	589.6	588.8	590.1
10°	589.6	589.4	589.3	589.2	589.0	588.6	587.8	587.0	586.3	585.6	586.9
12.5°	583.7	583.7	583.7	583.6	583.6	583.3	582.8	582.3	581.8	581.3	582.5
15°	574.2	574.4	574.5	574.6	574.8	574.6	574.2	573.8	573.3	572.8	574.2
17.5°	561.2	561.6	562.1	562.5	563.0	563.2	563.1	563.0	562.9	562.8	564.1
20°	552.1	552.5	552.9	553.5	553.9	554.1	554.3	554.5	554.6	554.7	556.2
22.5°	541.9	542.4	543.0	543.5	544.2	544.6	544.8	545.1	545.4	545.6	547.2
25°	525.3	526.2	527.1	528.0	528.8	529.5	529.9	530.4	530.9	531.3	533.0
27.5°	506.8	508.1	509.4	510.7	512.0	513.0	513.7	514.4	515.1	515.7	517.3
30°	494.5	495.7	496.8	498.0	499.2	500.3	501.4	502.4	503.4	504.5	506.2
32.5°	481.0	482.5	483.9	485.3	486.8	488.1	489.2	490.4	491.5	492.8	494.6
35°	459.6	461.4	463.2	464.9	466.7	468.4	469.8	471.4	472.9	474.3	476.5
37.5°	438.1	440.1	442.1	444.2	446.3	448.2	450.0	451.9	453.7	455.6	457.7
40°	424.1	426.0	428.0	429.9	431.9	433.9	435.9	438.0	440.1	442.2	444.4
42.5°	408.0	410.2	412.3	414.6	416.7	419.0	421.5	423.9	426.4	428.8	431.3
45°	383.2	386.1	388.9	391.8	394.5	397.4	400.2	403.0	405.9	408.7	411.2
47.5°	359.6	362.4	365.3	368.2	371.2	374.3	377.5	380.8	384.1	387.4	390.0
50°	342.3	345.6	348.9	352.2	355.5	358.8	362.1	365.3	368.6	371.9	374.8
52.5°	325.2	328.5	331.7	335.0	338.3	341.8	345.6	349.3	353.1	356.8	359.8
55°	300.1	303.2	306.4	309.5	312.6	316.4	320.9	325.4	329.8	334.3	337.3
57.5°	272.2	276.0	279.9	283.8	287.7	291.8	296.2	300.7	305.1	309.5	313.1
60°	253.9	257.8	261.7	265.5	269.4	273.8	278.7	283.6	288.5	293.4	296.9
62.5°	236.3	240.5	244.7	248.9	253.1	257.7	262.6	267.5	272.5	277.4	280.8
65°	207.7	212.5	217.2	222.0	226.8	231.7	236.7	241.8	246.8	251.9	255.6
67.5°	180.2	185.3	190.4	195.4	200.4	205.7	211.1	216.5	222.0	227.4	231.2
70°	161.4	166.5	171.6	176.7	181.8	187.1	192.7	198.4	204.1	209.7	213.7
72.5°	143.3	148.4	153.6	158.8	163.9	169.5	175.6	181.6	187.6	193.6	197.5
75°	115.2	120.7	126.2	131.7	137.2	143.2	149.4	155.7	162.0	168.2	172.4
77.5°	89.1	95.0	100.8	106.6	112.4	118.6	125.2	131.7	138.3	144.8	149.0
80°	73.0	79.0	85.0	90.9	96.9	103.1	109.7	116.2	122.8	129.3	133.8
82.5°	56.9	63.1	69.3	75.5	81.7	88.1	94.6	101.2	107.7	114.3	118.9
85°	35.5	41.8	48.0	54.2	60.5	67.0	73.7	80.4	87.1	93.8	98.2
87.5°	20.1	26.4	32.7	39.1	45.4	51.9	58.5	65.3	72.0	78.7	83.1
90°	12.2	19.4	26.5	33.7	40.8	48.0	55.3	62.6	69.8	77.1	82.1
92.5°	16.4	21.8	27.2	32.6	38.1	44.4	51.7	59.0	66.2	73.5	78.4
95°	35.7	36.9	38.1	39.3	40.6	44.3	50.5	56.7	62.9	69.1	73.8
97.5°	65.3	71.8	78.4	84.9	91.4	91.6	85.5	79.4	73.3	67.1	71.0
100°	87.9	93.8	99.6	105.4	111.2	109.5	100.3	91.0	81.8	72.5	74.7
102.5°	113.8	118.6	123.6	128.4	133.2	137.5	141.2	144.9	148.6	152.4	136.2
105°	153.9	157.5	161.1	164.8	168.4	173.2	179.3	185.4	191.4	197.4	202.2
107.5°	192.2	194.9	197.7	200.4	203.2	207.6	213.5	219.5	225.4	231.4	235.6
110°	217.5	220.0	222.4	224.8	227.2	231.4	237.2	243.1	248.9	254.8	258.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	242.1	244.6	247.0	249.4	251.8	255.7	261.1	266.3	271.6	276.8	280.1
115°	280.0	281.7	283.4	285.1	286.7	289.9	294.5	299.2	303.8	308.5	312.0
117.5°	314.8	316.0	317.3	318.5	319.8	322.7	327.4	332.1	336.7	341.4	344.5
120°	337.9	338.7	339.6	340.4	341.4	343.9	348.1	352.3	356.5	360.8	363.9
122.5°	359.8	360.2	360.5	360.8	361.2	363.5	367.7	372.0	376.2	380.5	383.6
125°	390.6	391.0	391.2	391.6	391.8	393.7	397.3	400.7	404.2	407.8	410.9
127.5°	420.4	420.3	420.3	420.3	420.3	421.9	425.2	428.6	432.0	435.3	438.0
130°	439.1	439.1	439.0	439.0	438.9	440.3	443.0	445.7	448.4	451.2	453.9
132.5°	456.8	456.8	456.9	456.9	457.0	458.1	460.5	462.8	465.1	467.4	470.1
135°	482.7	482.5	482.4	482.3	482.2	482.9	484.4	485.9	487.3	488.8	491.5
137.5°	506.1	506.0	505.9	505.8	505.8	506.2	507.1	508.2	509.1	510.1	512.5
140°	521.4	521.5	521.6	521.7	521.8	521.9	522.3	522.7	523.1	523.4	525.6
142.5°	534.7	535.0	535.4	535.8	536.1	536.3	536.4	536.4	536.5	536.5	538.5
145°	555.7	555.9	556.0	556.2	556.4	556.5	556.5	556.5	556.5	556.5	557.5
147.5°	572.5	572.9	573.3	573.9	574.3	574.5	574.4	574.3	574.1	574.0	574.3
150°	584.6	584.9	585.2	585.5	585.8	585.9	585.7	585.7	585.6	585.4	585.4
152.5°	594.3	594.6	595.0	595.3	595.6	595.6	595.5	595.3	595.0	594.9	595.0
155°	608.6	608.6	608.7	608.8	609.0	608.8	608.6	608.2	607.9	607.5	608.0
157.5°	620.6	620.5	620.4	620.4	620.4	620.1	619.7	619.4	619.0	618.6	619.2
160°	627.7	627.3	627.0	626.7	626.4	626.1	626.0	625.9	625.8	625.7	626.4
162.5°	634.0	633.5	633.1	632.7	632.3	632.1	631.9	631.8	631.7	631.6	632.2
165°	641.9	641.4	640.8	640.2	639.7	639.5	639.5	639.5	639.5	639.5	640.3
167.5°	648.2	647.6	647.0	646.5	645.9	645.6	645.6	645.5	645.4	645.3	646.4
170°	651.8	651.1	650.4	649.8	649.1	648.8	648.9	649.0	649.2	649.3	650.1
172.5°	654.1	653.4	652.8	652.1	651.5	651.2	651.3	651.4	651.5	651.6	652.6
175°	656.7	656.0	655.3	654.7	654.0	653.8	653.8	654.0	654.1	654.2	655.1
177.5°	657.8	657.2	656.6	656.0	655.4	655.1	655.3	655.5	655.7	655.8	656.6
180°	656.7	656.7	656.7	656.7	656.7	656.7	656.7	656.7	656.7	656.7	656.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3
2.5°	596.2	597.0	597.9	598.2	598.1	598.0	597.9	597.8
5°	594.7	595.8	597.0	597.5	597.4	597.3	597.1	596.9
7.5°	591.5	592.8	594.2	594.8	594.6	594.4	594.3	594.2
10°	588.2	589.6	590.9	591.5	591.4	591.2	591.1	590.9
12.5°	583.8	585.0	586.2	586.8	586.8	586.7	586.7	586.7
15°	575.5	576.9	578.2	578.8	578.7	578.5	578.3	578.2
17.5°	565.5	566.9	568.3	568.9	568.8	568.7	568.5	568.4
20°	557.8	559.2	560.7	561.5	561.5	561.5	561.5	561.5
22.5°	548.6	550.1	551.6	552.5	552.7	552.9	553.2	553.5
25°	534.6	536.2	537.9	538.7	538.9	539.1	539.2	539.3
27.5°	518.8	520.3	521.9	522.7	522.9	523.1	523.2	523.4
30°	507.8	509.5	511.1	512.0	512.3	512.6	512.9	513.2
32.5°	496.5	498.3	500.2	501.3	501.6	501.9	502.2	502.5
35°	478.5	480.6	482.7	484.0	484.4	484.8	485.3	485.8
37.5°	459.9	461.9	464.1	465.4	465.8	466.3	466.7	467.3
40°	446.7	448.9	451.2	452.5	453.1	453.7	454.3	455.0
42.5°	433.8	436.2	438.7	440.1	440.7	441.1	441.6	442.0
45°	413.8	416.3	418.8	420.4	421.2	422.0	422.7	423.4
47.5°	392.6	395.3	397.9	399.6	400.5	401.4	402.3	403.2
50°	377.8	380.8	383.7	385.7	386.6	387.4	388.4	389.3
52.5°	362.8	365.8	368.8	370.7	371.6	372.5	373.3	374.3
55°	340.3	343.3	346.2	348.2	349.0	350.0	350.9	351.7
57.5°	316.6	320.2	323.7	325.9	326.7	327.5	328.4	329.2
60°	300.3	303.8	307.1	309.4	310.6	311.9	313.1	314.3
62.5°	284.2	287.7	291.1	293.3	294.5	295.8	297.0	298.2
65°	259.3	263.1	266.8	269.2	270.4	271.6	272.9	274.1
67.5°	235.0	238.8	242.5	245.0	246.2	247.3	248.5	249.6
70°	217.7	221.8	225.8	228.3	229.4	230.4	231.4	232.5
72.5°	201.4	205.3	209.2	211.7	212.9	214.0	215.2	216.4
75°	176.5	180.6	184.9	187.6	188.9	190.3	191.7	193.0
77.5°	153.3	157.6	161.8	164.6	166.0	167.5	168.8	170.3
80°	138.3	142.7	147.1	150.0	151.2	152.4	153.6	154.8
82.5°	123.5	128.0	132.7	135.6	136.9	138.2	139.5	140.9
85°	102.7	107.2	111.7	114.7	116.1	117.6	119.1	120.6
87.5°	87.6	92.0	96.4	99.4	100.7	102.1	103.4	104.8
90°	87.0	92.0	97.0	100.2	101.6	103.1	104.4	105.8
92.5°	83.3	88.1	92.9	96.0	97.2	98.4	99.7	100.9
95°	78.4	83.1	87.8	90.8	92.3	93.8	95.2	96.7
97.5°	75.0	79.0	83.0	85.7	87.0	88.4	89.8	91.2
100°	76.9	79.0	81.2	82.8	84.0	85.2	86.3	87.5
102.5°	120.1	104.0	87.9	80.4	81.6	82.8	83.9	85.2
105°	206.9	211.5	216.3	217.2	214.5	211.8	209.1	206.3
107.5°	239.7	243.8	248.0	250.8	252.3	253.7	255.2	256.8
110°	262.1	265.7	269.3	271.9	273.5	275.0	276.5	278.0



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CATALOG NUMBER: SA4XXDIP-C575D590U935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	283.4	286.6	289.9	292.3	293.9	295.6	297.1	298.8
115°	315.5	319.0	322.4	324.8	325.8	326.8	327.9	328.9
117.5°	347.5	350.6	353.6	355.7	356.9	358.0	359.1	360.3
120°	367.1	370.3	373.5	375.6	376.6	377.5	378.5	379.5
122.5°	386.7	389.8	392.9	394.9	395.7	396.6	397.4	398.3
125°	414.1	417.2	420.3	422.4	423.4	424.5	425.4	426.5
127.5°	440.6	443.2	445.8	447.5	448.5	449.4	450.4	451.3
130°	456.7	459.5	462.3	464.2	465.0	465.9	466.8	467.7
132.5°	472.8	475.4	478.1	479.8	480.7	481.5	482.3	483.1
135°	494.0	496.6	499.2	501.1	502.2	503.3	504.4	505.5
137.5°	515.0	517.4	519.8	521.3	521.9	522.6	523.3	524.0
140°	528.0	530.2	532.4	534.0	534.9	535.7	536.6	537.4
142.5°	540.4	542.3	544.2	545.5	546.2	546.8	547.5	548.1
145°	558.4	559.5	560.4	561.4	562.1	563.0	563.8	564.6
147.5°	574.5	574.6	574.9	575.2	575.8	576.4	577.0	577.6
150°	585.4	585.4	585.4	585.5	585.6	585.7	585.8	585.9
152.5°	595.2	595.4	595.6	595.6	595.6	595.5	595.4	595.4
155°	608.4	608.8	609.2	609.3	609.0	608.6	608.4	608.0
157.5°	619.7	620.4	620.9	620.9	620.4	619.7	619.2	618.6
160°	627.0	627.7	628.4	628.4	627.7	627.0	626.4	625.7
162.5°	632.9	633.5	634.2	634.2	633.4	632.7	632.0	631.2
165°	641.2	642.0	643.0	642.9	641.9	640.9	640.0	638.9
167.5°	647.3	648.2	649.2	649.1	648.1	647.0	645.8	644.8
170°	651.0	651.9	652.8	652.6	651.6	650.5	649.4	648.3
172.5°	653.4	654.3	655.1	655.0	653.8	652.6	651.4	650.2
175°	656.2	657.1	658.1	658.0	656.7	655.3	654.0	652.7
177.5°	657.3	658.0	658.7	658.5	657.5	656.4	655.3	654.3
180°	656.7	656.7	656.7	656.7	656.7	656.7	656.7	656.7

(END OF REPORT)