

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: P332556-930

Luminaire Tested: **SA4XXDIP-C575D810U930-4F0-1E-UDD-D**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332556-930
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-C575D810U930-4F0-1E-UDD-D
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

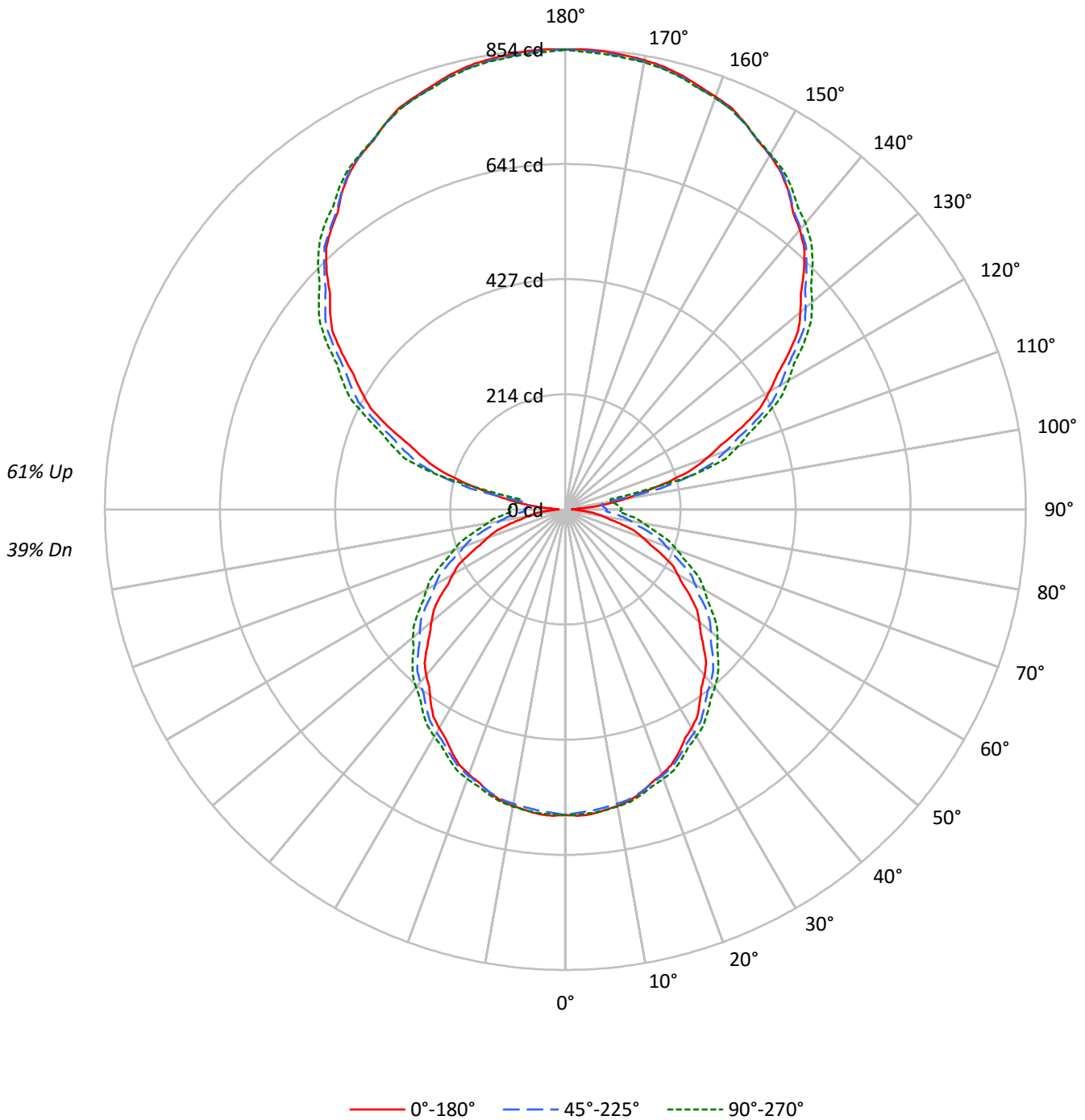
Lumens per Lamp: N/A
Luminaire Lumens: 4570.2 lumens
Efficiency: N/A
Efficacy: 119.0 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

Input Watts (W): 38.4
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	105	105	105	105	95	95	95	95	77	77	77	61	61	61	46	46	46	39
1	95	90	86	82	86	82	78	75	66	64	62	52	51	49	39	38	37	31
2	86	78	72	66	78	71	66	61	58	54	50	46	43	40	34	32	31	26
3	78	68	61	55	70	62	56	50	51	46	42	40	37	34	30	28	26	21
4	71	60	52	46	64	55	48	42	45	40	35	35	32	29	27	24	22	18
5	65	53	45	39	59	49	42	36	40	34	30	32	28	25	24	21	19	15
6	60	48	40	34	54	44	36	31	36	30	26	28	24	21	22	19	17	13
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15	12
8	51	39	31	26	46	36	29	24	29	24	20	24	20	17	18	15	13	11
9	48	35	28	23	43	32	26	21	27	22	18	22	18	15	17	14	12	9
10	44	32	25	20	40	30	23	19	25	20	16	20	16	13	15	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4574	4574	4574
5°	4588	4470	4482
10°	4560	4397	4393
15°	4519	4312	4289
20°	4458	4219	4187
25°	4388	4114	4074
30°	4313	4011	3959
35°	4227	3903	3858
40°	4160	3802	3753
45°	4059	3708	3663
50°	3973	3600	3567
55°	3884	3499	3454
60°	3746	3369	3353
65°	3597	3231	3227
70°	3414	3072	3080
75°	3157	2896	2948
80°	2873	2730	2819
85°	2514	2579	2742



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.6	1.2
10°-20°	153.7	3.4
20°-30°	232.4	5.1
30°-40°	281.2	6.2
40°-50°	297.3	6.5
50°-60°	279.8	6.1
60°-70°	232.1	5.1
70°-80°	163.1	3.6
80°-90°	94.7	2.1
90°-100°	83.9	1.8
100°-110°	226.4	5.0
110°-120°	382.7	8.4
120°-130°	466.7	10.2
130°-140°	489.5	10.7
140°-150°	452.9	9.9
150°-160°	364.2	8.0
160°-170°	234.9	5.1
170°-180°	81.0	1.8
0°-30°	439.8	9.6
0°-40°	721.0	15.8
0°-60°	1298.1	28.4
0°-90°	1788.0	39.1
90°-120°	693.0	15.2
90°-150°	2102.2	46.0
90°-180°	2782.0	60.9
0°-180°	4570.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	567	567	567	567	567	
5°	567	565	561	566	565	54
15°	544	544	542	548	548	153
25°	497	501	503	510	511	229
35°	435	443	449	458	460	272
45°	363	375	387	397	401	280
55°	284	298	317	329	333	253
65°	197	217	239	254	260	195
75°	109	133	159	176	183	116
85°	34	60	89	107	114	36
90°	12	44	77	98	105	8
95°	43	44	69	89	96	52
105°	198	215	241	260	244	207
115°	362	370	389	404	409	356
125°	506	509	523	536	541	452
135°	626	626	632	643	649	482
145°	721	722	722	727	730	450
155°	790	790	789	791	789	364
165°	833	830	830	834	829	235
175°	852	849	849	854	847	81
180°	852	852	852	852	852	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6
2.5°	568.6	568.3	567.9	567.5	567.2	566.6	565.7	564.8	563.9	563.0	563.8
5°	567.2	566.8	566.3	565.9	565.5	564.8	563.8	562.8	561.8	560.8	562.0
7.5°	562.4	562.1	561.8	561.6	561.3	560.8	560.0	559.2	558.3	557.5	558.8
10°	558.3	558.2	558.0	557.9	557.7	557.3	556.6	555.9	555.2	554.5	555.8
12.5°	552.7	552.7	552.7	552.6	552.6	552.4	551.9	551.4	550.9	550.4	551.5
15°	543.7	543.9	544.0	544.1	544.3	544.1	543.7	543.3	542.8	542.4	543.7
17.5°	531.4	531.8	532.2	532.6	533.1	533.3	533.2	533.1	533.0	533.0	534.2
20°	522.8	523.2	523.6	524.1	524.5	524.7	524.9	525.1	525.1	525.3	526.7
22.5°	513.1	513.6	514.2	514.7	515.3	515.7	515.9	516.2	516.4	516.7	518.1
25°	497.4	498.2	499.1	499.9	500.8	501.4	501.8	502.2	502.7	503.1	504.7
27.5°	479.9	481.1	482.3	483.6	484.9	485.8	486.4	487.1	487.7	488.4	489.8
30°	468.2	469.4	470.4	471.6	472.7	473.8	474.7	475.7	476.7	477.8	479.3
32.5°	455.5	456.9	458.2	459.6	461.0	462.2	463.3	464.4	465.5	466.6	468.3
35°	435.2	436.9	438.6	440.3	442.0	443.5	444.9	446.4	447.8	449.1	451.2
37.5°	414.8	416.7	418.7	420.6	422.6	424.4	426.2	428.0	429.7	431.4	433.4
40°	401.6	403.4	405.3	407.1	409.0	410.8	412.8	414.7	416.8	418.7	420.9
42.5°	386.4	388.4	390.4	392.6	394.6	396.8	399.1	401.4	403.7	406.0	408.4
45°	362.9	365.6	368.3	371.0	373.6	376.3	379.0	381.6	384.3	387.0	389.4
47.5°	340.5	343.2	345.9	348.7	351.5	354.4	357.5	360.6	363.7	366.8	369.3
50°	324.2	327.3	330.4	333.5	336.6	339.7	342.8	345.9	349.0	352.1	354.9
52.5°	307.9	311.0	314.1	317.2	320.3	323.7	327.3	330.8	334.4	337.9	340.7
55°	284.2	287.1	290.2	293.1	296.0	299.6	303.9	308.1	312.3	316.6	319.4
57.5°	257.7	261.4	265.1	268.7	272.4	276.3	280.5	284.7	288.9	293.1	296.4
60°	240.4	244.1	247.8	251.4	255.1	259.3	263.9	268.6	273.2	277.9	281.1
62.5°	223.7	227.7	231.7	235.7	239.7	244.0	248.7	253.3	258.0	262.7	265.9
65°	196.7	201.2	205.7	210.2	214.7	219.4	224.1	228.9	233.7	238.6	242.1
67.5°	170.6	175.5	180.3	185.1	189.8	194.8	199.9	205.0	210.2	215.3	218.9
70°	152.9	157.7	162.5	167.3	172.1	177.2	182.5	187.8	193.2	198.6	202.4
72.5°	135.7	140.6	145.4	150.3	155.2	160.5	166.2	171.9	177.7	183.4	187.0
75°	109.1	114.3	119.5	124.7	130.0	135.6	141.5	147.4	153.4	159.2	163.2
77.5°	84.4	89.9	95.5	100.9	106.5	112.3	118.5	124.7	130.9	137.1	141.1
80°	69.1	74.8	80.5	86.1	91.7	97.6	103.9	110.1	116.3	122.5	126.7
82.5°	53.9	59.8	65.6	71.5	77.4	83.4	89.6	95.8	102.0	108.3	112.6
85°	33.6	39.5	45.5	51.4	57.3	63.4	69.8	76.1	82.5	88.8	93.0
87.5°	19.2	25.2	31.3	37.3	43.5	49.7	56.0	62.5	68.9	75.3	79.5
90°	12.1	19.2	26.5	33.7	40.8	48.0	55.3	62.5	69.6	76.8	81.8
92.5°	17.7	22.8	28.0	33.2	38.3	44.5	51.7	58.9	66.1	73.3	78.1
95°	43.3	43.1	43.0	42.8	42.6	45.5	51.4	57.4	63.3	69.2	73.9
97.5°	81.9	88.9	96.0	103.0	110.0	108.4	98.3	88.3	78.2	68.1	71.9
100°	111.5	117.7	123.9	130.2	136.4	132.5	118.4	104.4	90.3	76.2	77.7
102.5°	145.2	150.3	155.3	160.5	165.5	169.5	172.4	175.1	178.0	180.8	158.6
105°	197.6	201.3	205.0	208.6	212.3	217.0	223.0	228.9	234.8	240.8	245.6
107.5°	247.3	250.1	252.8	255.5	258.3	262.6	268.5	274.3	280.3	286.2	290.2
110°	280.5	282.8	285.3	287.6	290.1	294.2	299.9	305.7	311.5	317.3	320.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	312.6	315.1	317.6	320.2	322.6	326.4	331.6	336.6	341.8	346.9	349.9
115°	362.1	363.8	365.4	367.1	368.8	371.9	376.3	380.6	385.0	389.4	392.7
117.5°	407.2	408.5	409.9	411.2	412.5	415.4	420.0	424.4	429.0	433.5	436.3
120°	437.3	438.3	439.3	440.3	441.2	443.7	447.7	451.6	455.6	459.5	462.6
122.5°	465.9	466.3	466.7	467.1	467.6	469.8	473.9	477.9	482.0	486.0	489.0
125°	506.1	506.5	507.0	507.4	507.8	509.6	512.9	516.2	519.4	522.6	525.8
127.5°	544.8	544.8	544.8	544.8	544.8	546.5	549.8	553.2	556.5	559.9	562.3
130°	569.2	569.2	569.2	569.2	569.2	570.6	573.3	575.9	578.6	581.3	584.0
132.5°	592.2	592.3	592.4	592.6	592.6	593.9	596.2	598.6	601.0	603.2	605.8
135°	626.0	625.8	625.7	625.6	625.4	626.1	627.7	629.2	630.8	632.3	634.9
137.5°	656.5	656.4	656.3	656.2	656.2	656.6	657.7	658.8	660.0	661.0	663.4
140°	676.4	676.5	676.6	676.8	676.9	677.2	677.6	678.1	678.5	678.9	681.2
142.5°	693.7	694.1	694.6	695.1	695.6	695.9	696.0	696.1	696.2	696.3	698.1
145°	721.0	721.3	721.5	721.9	722.1	722.3	722.3	722.3	722.3	722.3	723.3
147.5°	742.8	743.5	744.1	744.8	745.4	745.7	745.5	745.3	745.2	745.1	745.3
150°	758.6	759.0	759.5	759.9	760.3	760.4	760.3	760.2	760.0	759.9	759.9
152.5°	771.4	771.8	772.2	772.7	773.1	773.1	772.9	772.7	772.3	772.1	772.3
155°	789.9	789.9	790.1	790.3	790.4	790.3	789.9	789.4	789.0	788.6	789.1
157.5°	805.5	805.4	805.4	805.3	805.2	804.9	804.4	804.0	803.5	803.0	803.7
160°	814.7	814.2	813.8	813.4	813.0	812.7	812.6	812.4	812.3	812.1	813.0
162.5°	822.9	822.3	821.7	821.3	820.7	820.4	820.2	820.1	819.9	819.8	820.7
165°	833.2	832.5	831.8	831.0	830.4	830.0	830.0	830.0	830.0	830.0	831.1
167.5°	841.3	840.6	839.8	839.1	838.4	838.0	837.9	837.8	837.7	837.6	838.9
170°	846.0	845.1	844.2	843.3	842.5	842.2	842.3	842.4	842.6	842.8	843.8
172.5°	849.0	848.2	847.3	846.4	845.6	845.2	845.4	845.5	845.6	845.8	846.9
175°	852.3	851.4	850.6	849.8	848.9	848.6	848.7	848.8	849.0	849.1	850.4
177.5°	853.9	853.0	852.2	851.4	850.7	850.4	850.6	850.8	851.1	851.3	852.2
180°	852.3	852.3	852.3	852.3	852.3	852.3	852.3	852.3	852.3	852.3	852.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6
2.5°	564.6	565.3	566.1	566.5	566.4	566.2	566.1	566.1
5°	563.1	564.2	565.3	565.8	565.7	565.6	565.4	565.2
7.5°	560.1	561.3	562.6	563.2	563.0	562.9	562.7	562.6
10°	557.0	558.3	559.5	560.1	560.0	559.9	559.7	559.5
12.5°	552.8	553.9	555.1	555.6	555.6	555.5	555.5	555.5
15°	544.9	546.3	547.5	548.0	548.0	547.8	547.6	547.5
17.5°	535.5	536.8	538.1	538.7	538.6	538.5	538.3	538.3
20°	528.2	529.5	530.9	531.7	531.7	531.7	531.7	531.7
22.5°	519.5	520.9	522.3	523.2	523.3	523.6	523.8	524.1
25°	506.2	507.8	509.3	510.1	510.3	510.5	510.5	510.7
27.5°	491.3	492.7	494.2	495.0	495.1	495.3	495.5	495.6
30°	480.9	482.4	484.0	484.9	485.1	485.4	485.7	486.0
32.5°	470.1	471.9	473.7	474.7	475.0	475.2	475.6	475.8
35°	453.1	455.1	457.1	458.3	458.7	459.1	459.5	460.0
37.5°	435.5	437.4	439.4	440.7	441.1	441.6	442.0	442.5
40°	423.0	425.1	427.2	428.5	429.1	429.7	430.2	430.8
42.5°	410.7	413.0	415.4	416.8	417.3	417.7	418.2	418.6
45°	391.8	394.2	396.6	398.1	398.8	399.6	400.2	401.0
47.5°	371.8	374.3	376.7	378.4	379.3	380.1	381.0	381.8
50°	357.8	360.6	363.4	365.3	366.1	366.9	367.8	368.6
52.5°	343.6	346.3	349.2	351.0	351.9	352.7	353.5	354.4
55°	322.2	325.1	327.8	329.7	330.5	331.4	332.2	333.0
57.5°	299.8	303.2	306.6	308.6	309.4	310.1	311.0	311.8
60°	284.4	287.6	290.8	293.0	294.2	295.3	296.4	297.6
62.5°	269.1	272.4	275.7	277.8	278.9	280.1	281.2	282.3
65°	245.6	249.2	252.7	254.9	256.1	257.2	258.4	259.5
67.5°	222.5	226.1	229.7	232.0	233.1	234.2	235.3	236.4
70°	206.2	210.0	213.8	216.2	217.2	218.2	219.2	220.1
72.5°	190.7	194.4	198.1	200.5	201.6	202.7	203.8	204.9
75°	167.1	171.0	175.0	177.7	178.9	180.2	181.5	182.7
77.5°	145.2	149.2	153.2	155.9	157.2	158.6	159.9	161.3
80°	130.9	135.1	139.3	142.0	143.2	144.3	145.4	146.6
82.5°	116.9	121.2	125.6	128.4	129.6	130.9	132.1	133.4
85°	97.3	101.5	105.7	108.6	110.0	111.4	112.8	114.2
87.5°	83.8	88.1	92.3	95.1	96.4	97.7	99.0	100.3
90°	86.7	91.6	96.6	99.8	101.2	102.6	104.0	105.4
92.5°	82.9	87.7	92.6	95.6	96.8	97.9	99.1	100.4
95°	78.5	83.2	87.8	90.9	92.3	93.7	95.1	96.5
97.5°	75.7	79.4	83.2	85.8	87.2	88.5	89.8	91.2
100°	79.1	80.5	81.9	83.2	84.2	85.4	86.5	87.6
102.5°	136.2	114.0	91.6	81.1	82.3	83.3	84.5	85.6
105°	250.4	255.2	260.0	260.4	256.4	252.4	248.4	244.5
107.5°	294.3	298.5	302.6	305.3	306.9	308.4	310.1	311.6
110°	324.3	327.8	331.4	333.9	335.5	337.0	338.6	340.1



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CATALOG NUMBER: SA4XXDIP-C575D810U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	353.0	356.1	359.1	361.5	363.2	364.8	366.6	368.2
115°	396.2	399.5	402.9	405.0	406.1	407.1	408.1	409.0
117.5°	439.2	442.1	445.0	446.9	448.0	449.1	450.2	451.3
120°	465.7	468.8	471.9	473.9	474.7	475.6	476.5	477.3
122.5°	492.0	495.0	498.0	499.9	500.6	501.3	502.1	502.8
125°	528.9	532.0	535.1	537.1	538.1	539.1	540.1	541.0
127.5°	564.8	567.3	569.7	571.4	572.2	573.1	573.9	574.7
130°	586.7	589.4	592.1	593.8	594.7	595.5	596.3	597.2
132.5°	608.4	611.0	613.5	615.1	615.9	616.6	617.3	618.1
135°	637.4	639.9	642.5	644.3	645.5	646.6	647.8	648.8
137.5°	665.8	668.1	670.5	672.1	672.6	673.3	673.8	674.5
140°	683.4	685.7	687.9	689.5	690.3	691.2	692.0	692.8
142.5°	700.1	702.0	703.9	705.2	705.8	706.5	707.0	707.7
145°	724.2	725.2	726.2	727.2	728.0	728.8	729.7	730.5
147.5°	745.5	745.8	746.0	746.4	747.0	747.5	748.2	748.8
150°	759.9	759.9	759.9	759.9	760.1	760.2	760.3	760.5
152.5°	772.6	772.8	773.0	773.1	773.0	772.9	772.8	772.7
155°	789.7	790.3	790.8	790.9	790.4	790.0	789.6	789.2
157.5°	804.5	805.2	805.9	805.9	805.2	804.5	803.7	803.0
160°	813.8	814.7	815.5	815.5	814.7	813.8	813.0	812.1
162.5°	821.5	822.3	823.2	823.1	822.1	821.2	820.3	819.3
165°	832.3	833.4	834.5	834.5	833.2	831.9	830.6	829.3
167.5°	840.2	841.4	842.6	842.5	841.1	839.7	838.3	836.9
170°	845.0	846.1	847.3	847.1	845.7	844.3	842.9	841.5
172.5°	848.1	849.2	850.4	850.1	848.6	847.1	845.5	844.0
175°	851.7	853.0	854.2	854.0	852.3	850.6	848.9	847.2
177.5°	853.1	854.0	854.9	854.7	853.3	852.0	850.6	849.2
180°	852.3	852.3	852.3	852.3	852.3	852.3	852.3	852.3

(END OF REPORT)