

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: P332560-935

Luminaire Tested: **SA4XXDIP-C575D810U935-4F0-1E-UDD-F1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332560-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXDIP-C575D810U935-4F0-1E-UDD-F1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4563.0 lumens
Efficiency: N/A
Efficacy: 118.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: General Diffuse

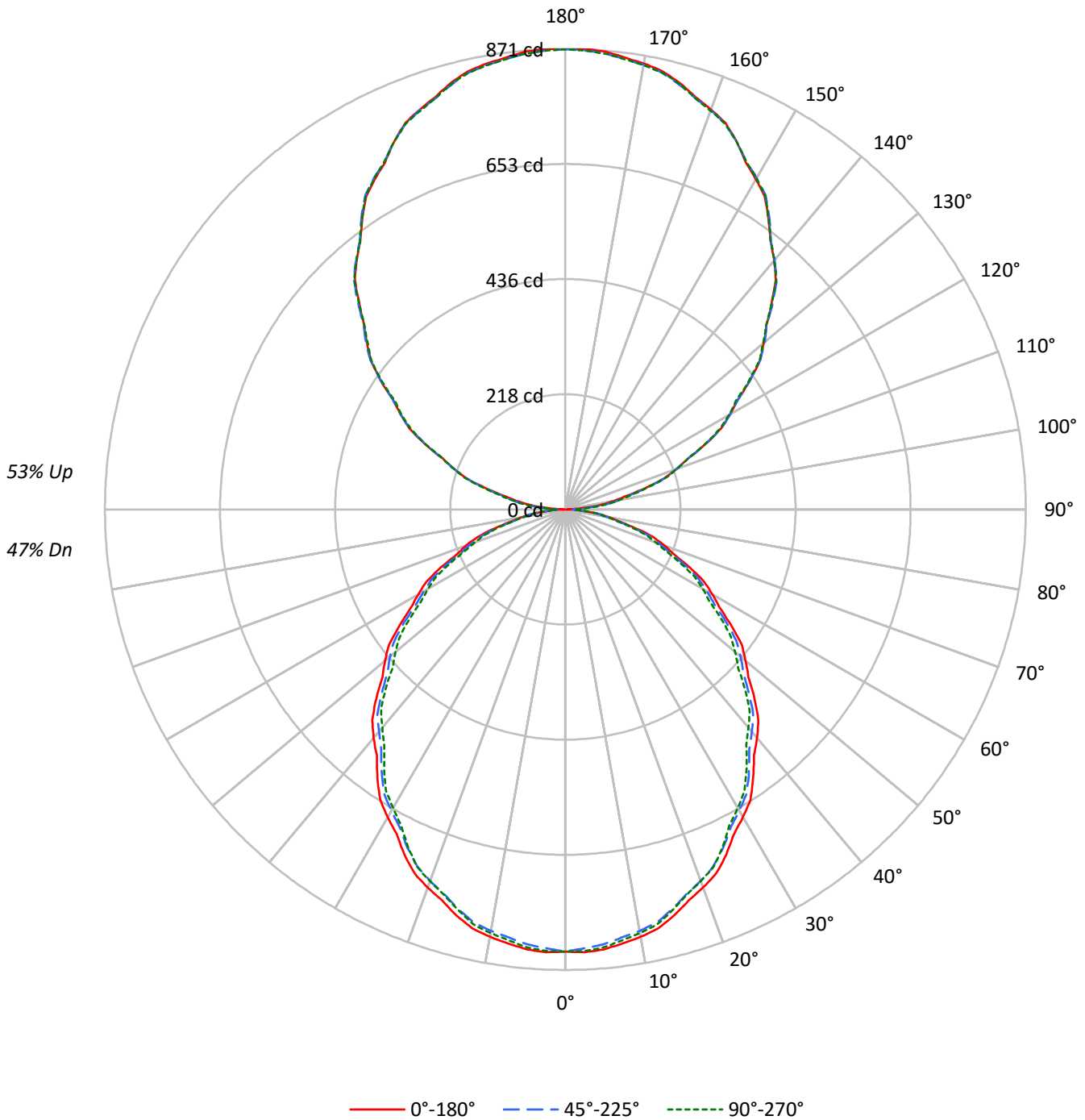
Input Watts (W): 38.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20										
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	0																	
RCR																																						
0	106	106	106	106	98	98	98	98	82	82	82	67	67	67	53	53	53	47				47																
1	97	93	89	85	89	85	82	79	72	69	67	59	57	56	47	46	45				40																	
2	88	81	75	70	81	75	69	65	63	59	55	52	49	46	41	40	38				33																	
3	81	71	64	58	74	66	59	54	55	51	47	46	42	39	37	34	32				28																	
4	74	63	55	49	67	58	51	46	49	44	40	41	37	34	33	30	28				24																	
5	68	56	48	42	62	52	45	39	44	38	34	36	32	29	30	27	24				21																	
6	62	50	42	36	57	47	39	34	40	34	30	33	29	26	27	24	21				18																	
7	58	45	37	32	53	42	35	30	36	30	26	30	26	23	25	21	19				16																	
8	53	41	33	28	49	38	31	27	33	27	23	27	23	20	23	19	17				15																	
9	50	38	30	25	46	35	28	24	30	25	21	25	21	18	21	18	15				13																	
10	46	34	27	22	43	32	26	21	28	22	19	23	19	16	19	16	14				12																	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6750	6750	6750
5°	6771	6689	6738
10°	6728	6634	6668
15°	6647	6541	6557
20°	6539	6424	6430
25°	6415	6290	6272
30°	6264	6134	6077
35°	6107	5969	5889
40°	5945	5782	5676
45°	5775	5599	5492
50°	5588	5436	5267
55°	5384	5225	5054
60°	5181	4986	4836
65°	4951	4762	4569
70°	4697	4459	4286
75°	4304	4095	3989
80°	3831	3673	3584
85°	3353	3233	3168



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.7	1.7
10°-20°	221.9	4.9
20°-30°	326.6	7.2
30°-40°	379.6	8.3
40°-50°	379.6	8.3
50°-60°	332.1	7.3
60°-70°	246.6	5.4
70°-80°	140.1	3.1
80°-90°	43.0	0.9
90°-100°	57.4	1.3
100°-110°	170.1	3.7
110°-120°	288.6	6.3
120°-130°	380.6	8.3
130°-140°	427.4	9.4
140°-150°	420.0	9.2
150°-160°	353.3	7.7
160°-170°	235.0	5.2
170°-180°	82.3	1.8
0°-30°	627.2	13.7
0°-40°	1006.8	22.1
0°-60°	1718.5	37.7
0°-90°	2148.3	47.1
90°-120°	516.1	11.3
90°-150°	1744.1	38.2
90°-180°	2415.0	52.9
0°-180°	4563.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	836	836	836	836	836	
5°	836	833	825	832	832	79
15°	795	792	783	786	784	224
25°	720	715	706	707	704	331
35°	620	615	606	601	598	387
45°	506	501	490	483	481	390
55°	382	380	371	363	359	343
65°	259	256	249	243	239	257
75°	138	135	131	129	128	147
85°	36	36	35	35	34	40
90°	2	9	15	19	20	4
95°	40	46	51	53	53	45
105°	157	158	160	162	164	166
115°	294	293	292	291	291	289
125°	427	427	427	425	424	381
135°	551	555	555	554	552	426
145°	670	672	673	672	670	419
155°	767	767	767	769	767	353
165°	835	833	832	836	833	235
175°	869	866	865	869	865	82
180°	870	870	870	870	870	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	836.1	836.1	836.1	836.1	836.1	836.1	836.1	836.1	836.1	836.1	836.1
2.5°	838.3	837.9	837.6	837.2	836.9	836.0	834.7	833.4	832.1	830.8	832.0
5°	835.5	834.9	834.3	833.7	833.1	832.0	830.3	828.7	827.1	825.4	827.1
7.5°	827.7	827.1	826.6	826.0	825.4	824.1	822.3	820.5	818.6	816.8	818.2
10°	820.7	820.2	819.6	819.0	818.4	817.1	815.2	813.2	811.3	809.3	810.5
12.5°	811.7	811.1	810.5	809.9	809.3	808.0	805.9	803.8	801.8	799.7	801.0
15°	795.3	794.7	794.1	793.5	792.9	791.5	789.3	787.0	784.8	782.6	783.4
17.5°	775.6	774.8	774.1	773.4	772.6	771.2	769.0	767.0	764.8	762.8	763.3
20°	761.1	760.3	759.7	758.9	758.1	756.6	754.4	752.2	749.9	747.7	748.1
22.5°	745.5	744.6	743.6	742.6	741.7	740.0	737.8	735.6	733.3	731.1	731.9
25°	720.2	719.2	718.2	717.1	716.1	714.5	712.4	710.3	708.3	706.2	706.4
27.5°	691.3	690.3	689.1	688.1	687.0	685.5	683.5	681.7	679.7	677.8	677.4
30°	672.0	670.8	669.6	668.4	667.3	665.6	663.7	661.8	659.9	658.0	657.4
32.5°	651.6	650.6	649.5	648.4	647.4	645.8	643.8	641.7	639.6	637.6	636.9
35°	619.7	618.7	617.7	616.6	615.6	614.0	611.9	609.8	607.8	605.7	604.6
37.5°	586.1	585.1	584.2	583.2	582.3	580.7	578.5	576.3	574.0	571.8	570.7
40°	564.1	562.9	561.7	560.6	559.4	557.7	555.4	553.2	551.0	548.7	547.3
42.5°	540.5	539.8	539.2	538.4	537.7	536.1	533.6	531.2	528.7	526.2	524.5
45°	505.8	504.8	503.8	502.7	501.7	500.0	497.6	495.2	492.8	490.4	488.8
47.5°	469.5	468.8	468.1	467.4	466.7	465.2	463.0	460.8	458.6	456.4	454.5
50°	444.9	444.3	443.7	443.1	442.5	441.2	439.1	437.0	434.9	432.8	430.8
52.5°	420.8	420.1	419.3	418.6	417.9	416.5	414.2	412.1	409.8	407.6	405.8
55°	382.5	382.1	381.7	381.3	380.8	379.5	377.5	375.3	373.2	371.2	369.4
57.5°	346.1	345.6	345.1	344.6	344.1	342.9	340.8	338.7	336.7	334.6	332.9
60°	320.9	320.2	319.4	318.7	318.0	316.6	314.7	312.7	310.8	308.8	307.5
62.5°	296.3	295.7	295.0	294.4	293.8	292.4	290.4	288.3	286.3	284.2	283.0
65°	259.2	258.6	257.8	257.1	256.3	255.2	253.7	252.2	250.7	249.3	247.7
67.5°	222.1	221.4	220.7	220.0	219.3	218.3	216.8	215.4	214.0	212.5	211.1
70°	199.0	197.9	196.9	195.9	194.8	193.7	192.5	191.3	190.1	188.9	187.8
72.5°	174.4	173.3	172.3	171.2	170.1	169.2	168.2	167.3	166.3	165.3	164.4
75°	138.0	137.2	136.6	135.8	135.0	134.3	133.5	132.8	132.1	131.3	130.7
77.5°	103.3	103.0	102.6	102.4	102.0	101.5	100.8	100.2	99.5	98.9	98.7
80°	82.4	82.0	81.5	81.1	80.6	80.2	80.0	79.6	79.4	79.0	78.8
82.5°	62.1	61.8	61.6	61.4	61.2	61.0	61.0	61.0	60.9	60.9	60.6
85°	36.2	36.2	36.2	36.2	36.2	36.0	35.7	35.5	35.1	34.9	34.9
87.5°	14.4	14.6	14.7	15.0	15.2	15.3	15.5	15.6	15.7	15.8	16.0
90°	2.0	3.7	5.3	7.0	8.6	10.0	11.2	12.4	13.6	14.8	15.7
92.5°	14.4	16.3	18.2	20.1	22.0	23.3	24.1	25.0	25.8	26.7	27.2
95°	40.4	41.8	43.0	44.4	45.8	47.0	48.0	49.1	50.1	51.1	51.6
97.5°	70.5	71.6	72.7	73.8	74.8	76.0	77.2	78.4	79.6	80.9	81.5
100°	94.3	94.8	95.4	96.0	96.6	97.6	98.9	100.3	101.6	103.0	103.3
102.5°	119.0	119.2	119.5	119.8	119.9	120.7	121.9	123.1	124.4	125.6	126.1
105°	156.9	157.0	157.1	157.3	157.5	157.8	158.4	159.0	159.6	160.2	160.7
107.5°	196.6	196.7	196.9	197.1	197.3	197.4	197.5	197.6	197.7	197.8	198.2
110°	223.5	223.8	224.0	224.4	224.6	224.7	224.6	224.5	224.3	224.1	223.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	251.5	251.5	251.6	251.7	251.8	251.6	251.3	251.1	250.8	250.6	250.5
115°	293.5	293.5	293.5	293.5	293.5	293.3	293.0	292.7	292.4	292.1	292.0
117.5°	333.0	333.2	333.3	333.4	333.6	333.5	333.3	333.0	332.9	332.7	332.2
120°	359.5	360.1	360.7	361.3	361.9	361.9	361.4	361.0	360.6	360.2	359.4
122.5°	386.9	387.1	387.4	387.6	387.9	387.9	387.7	387.4	387.3	387.0	386.5
125°	427.4	427.4	427.4	427.4	427.4	427.3	427.2	427.1	426.9	426.8	426.5
127.5°	464.2	464.6	465.1	465.5	466.0	466.1	465.8	465.6	465.4	465.1	464.9
130°	490.0	490.5	490.9	491.4	491.8	492.1	492.1	492.1	492.1	492.1	491.7
132.5°	516.4	516.8	517.1	517.4	517.7	517.8	517.7	517.6	517.5	517.4	517.0
135°	551.3	552.2	553.1	554.0	554.9	555.3	555.3	555.3	555.3	555.3	555.0
137.5°	589.3	589.7	590.0	590.5	590.9	591.2	591.5	591.8	591.9	592.2	591.9
140°	614.6	614.8	615.2	615.4	615.8	615.9	615.9	615.9	615.9	615.9	615.8
142.5°	637.7	638.0	638.3	638.6	638.9	639.0	638.9	638.8	638.6	638.5	638.5
145°	669.8	670.4	671.0	671.6	672.2	672.5	672.7	672.8	673.0	673.1	673.0
147.5°	701.5	702.2	702.9	703.7	704.4	704.7	704.6	704.5	704.3	704.2	704.1
150°	720.9	721.5	722.1	722.7	723.3	723.6	723.6	723.6	723.6	723.6	723.6
152.5°	739.3	739.6	739.9	740.3	740.6	740.9	741.0	741.1	741.2	741.4	741.8
155°	767.3	767.3	767.3	767.3	767.3	767.2	767.2	767.0	766.8	766.7	767.2
157.5°	791.1	790.7	790.5	790.2	790.0	789.8	789.8	789.8	789.7	789.7	790.1
160°	805.0	804.9	804.8	804.6	804.4	804.3	804.2	804.0	803.8	803.7	804.2
162.5°	817.9	817.6	817.2	816.8	816.4	816.1	816.0	815.9	815.7	815.5	816.4
165°	835.3	834.9	834.5	834.0	833.5	833.2	832.8	832.6	832.2	832.0	832.8
167.5°	848.7	848.0	847.4	846.8	846.2	845.8	845.8	845.9	845.9	845.9	846.9
170°	856.2	855.5	854.7	853.9	853.3	852.9	853.1	853.3	853.3	853.5	854.4
172.5°	861.6	861.0	860.3	859.7	859.1	858.8	858.8	858.8	858.8	858.9	859.9
175°	869.0	868.2	867.5	866.8	866.0	865.6	865.4	865.2	865.1	865.0	866.0
177.5°	871.4	870.8	870.2	869.6	869.0	868.7	868.7	868.7	868.7	868.7	869.5
180°	870.3	870.3	870.3	870.3	870.3	870.3	870.3	870.3	870.3	870.3	870.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	836.1	836.1	836.1	836.1	836.1	836.1	836.1	836.1
2.5°	833.2	834.4	835.6	836.1	835.9	835.9	835.8	835.6
5°	828.7	830.3	832.0	832.7	832.3	832.1	831.7	831.5
7.5°	819.5	820.8	822.1	822.7	822.5	822.3	822.2	821.9
10°	811.8	813.0	814.2	814.6	814.2	814.0	813.6	813.4
12.5°	802.4	803.7	804.9	805.4	804.9	804.5	804.2	803.7
15°	784.4	785.2	786.1	786.4	785.9	785.5	785.0	784.5
17.5°	763.9	764.4	765.0	765.1	764.8	764.5	764.2	764.0
20°	748.6	749.1	749.5	749.6	749.2	749.0	748.7	748.4
22.5°	732.7	733.5	734.3	734.4	733.9	733.4	732.9	732.3
25°	706.5	706.6	706.8	706.5	705.9	705.3	704.7	704.1
27.5°	677.1	676.7	676.3	675.8	675.0	674.3	673.6	672.8
30°	656.8	656.2	655.6	654.9	654.1	653.4	652.6	651.9
32.5°	636.1	635.4	634.7	634.0	633.3	632.5	631.7	631.0
35°	603.6	602.5	601.5	600.6	599.9	599.1	598.4	597.6
37.5°	569.6	568.3	567.2	566.2	565.2	564.2	563.3	562.2
40°	545.8	544.2	542.8	541.7	540.9	540.2	539.4	538.6
42.5°	522.8	521.0	519.3	518.1	517.7	517.2	516.7	516.2
45°	487.2	485.5	483.9	482.8	482.4	482.0	481.5	481.0
47.5°	452.7	450.8	449.0	447.5	446.4	445.2	444.1	443.0
50°	428.6	426.5	424.5	423.0	422.1	421.2	420.3	419.4
52.5°	403.9	402.1	400.3	398.7	397.6	396.5	395.4	394.3
55°	367.6	365.8	364.0	362.7	361.8	360.9	360.0	359.1
57.5°	331.2	329.5	327.8	326.5	325.6	324.8	323.9	323.0
60°	306.2	304.9	303.5	302.5	301.7	301.0	300.2	299.5
62.5°	281.8	280.5	279.3	278.4	277.6	276.9	276.1	275.3
65°	246.2	244.8	243.3	242.2	241.4	240.6	240.0	239.2
67.5°	209.7	208.3	206.8	206.0	205.8	205.6	205.3	205.2
70°	186.6	185.4	184.2	183.4	182.9	182.4	182.0	181.6
72.5°	163.4	162.5	161.5	160.8	160.4	160.0	159.5	159.0
75°	130.1	129.5	129.0	128.5	128.4	128.3	128.1	127.9
77.5°	98.5	98.3	98.2	97.9	97.5	97.1	96.7	96.3
80°	78.4	78.2	77.8	77.7	77.5	77.3	77.2	77.1
82.5°	60.4	60.3	60.1	59.9	59.8	59.7	59.5	59.3
85°	34.9	34.9	34.9	34.8	34.6	34.4	34.4	34.2
87.5°	16.2	16.4	16.5	16.7	16.7	16.8	16.9	16.9
90°	16.6	17.5	18.4	19.0	19.3	19.6	19.9	20.2
92.5°	27.7	28.2	28.8	29.2	29.4	29.5	29.7	29.9
95°	52.1	52.5	53.0	53.2	53.2	53.2	53.2	53.2
97.5°	82.0	82.5	83.1	83.3	83.3	83.3	83.3	83.3
100°	103.6	103.9	104.2	104.4	104.4	104.4	104.4	104.4
102.5°	126.5	126.8	127.3	127.5	127.7	127.8	127.9	128.0
105°	161.1	161.5	162.0	162.5	162.9	163.3	163.8	164.3
107.5°	198.6	199.0	199.4	199.7	199.6	199.6	199.6	199.5
110°	223.5	223.3	222.9	223.0	223.5	223.9	224.4	224.8



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CATALOG NUMBER: SA4XXDIP-C575D810U935-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	250.4	250.4	250.3	250.3	250.4	250.5	250.6	250.6
115°	291.8	291.7	291.5	291.4	291.3	291.1	290.9	290.8
117.5°	331.7	331.1	330.6	330.2	329.9	329.6	329.3	329.0
120°	358.6	357.8	357.1	356.9	357.2	357.5	357.8	358.1
122.5°	386.0	385.6	385.0	384.5	383.9	383.4	382.9	382.4
125°	426.2	425.9	425.6	425.2	425.0	424.6	424.4	424.0
127.5°	464.5	464.3	463.9	463.6	463.4	463.2	463.0	462.7
130°	491.5	491.1	490.9	490.4	489.8	489.2	488.6	488.0
132.5°	516.8	516.4	516.2	515.9	515.7	515.4	515.1	515.0
135°	554.7	554.4	554.1	553.7	553.3	552.8	552.4	552.0
137.5°	591.4	591.1	590.6	590.5	590.6	590.6	590.7	590.9
140°	615.6	615.4	615.3	615.2	615.0	614.8	614.7	614.6
142.5°	638.4	638.4	638.4	638.3	638.3	638.3	638.3	638.3
145°	672.8	672.7	672.5	672.2	671.8	671.3	670.9	670.5
147.5°	704.0	703.9	703.7	703.6	703.4	703.3	703.2	703.0
150°	723.6	723.6	723.6	723.5	723.4	723.2	723.1	722.9
152.5°	742.1	742.4	742.8	742.8	742.4	742.0	741.7	741.2
155°	767.8	768.4	769.0	769.0	768.4	767.8	767.2	766.7
157.5°	790.6	791.1	791.5	791.4	791.0	790.5	790.0	789.5
160°	804.6	805.0	805.5	805.4	804.6	803.8	803.1	802.4
162.5°	817.2	817.9	818.8	818.8	818.0	817.3	816.6	815.8
165°	833.8	834.7	835.6	835.7	835.1	834.5	833.9	833.4
167.5°	847.7	848.7	849.5	849.5	848.6	847.7	846.8	845.8
170°	855.3	856.2	857.1	857.0	856.0	855.0	853.9	852.8
172.5°	860.9	861.9	863.0	863.0	861.9	860.8	859.8	858.8
175°	867.0	868.1	869.2	869.2	868.1	867.0	866.0	865.0
177.5°	870.4	871.2	872.1	872.0	871.1	870.1	869.2	868.1
180°	870.3	870.3	870.3	870.3	870.3	870.3	870.3	870.3

(END OF REPORT)