

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: P331563-927

Luminaire Tested: **S122DIW-S865D710U927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331563-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DIW-S865D710U927-4F0-1E-UDD-D
Description: DEFINE 2 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 865 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 710 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5015.0 lumens
Efficiency: N/A
Efficacy: 93.6 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

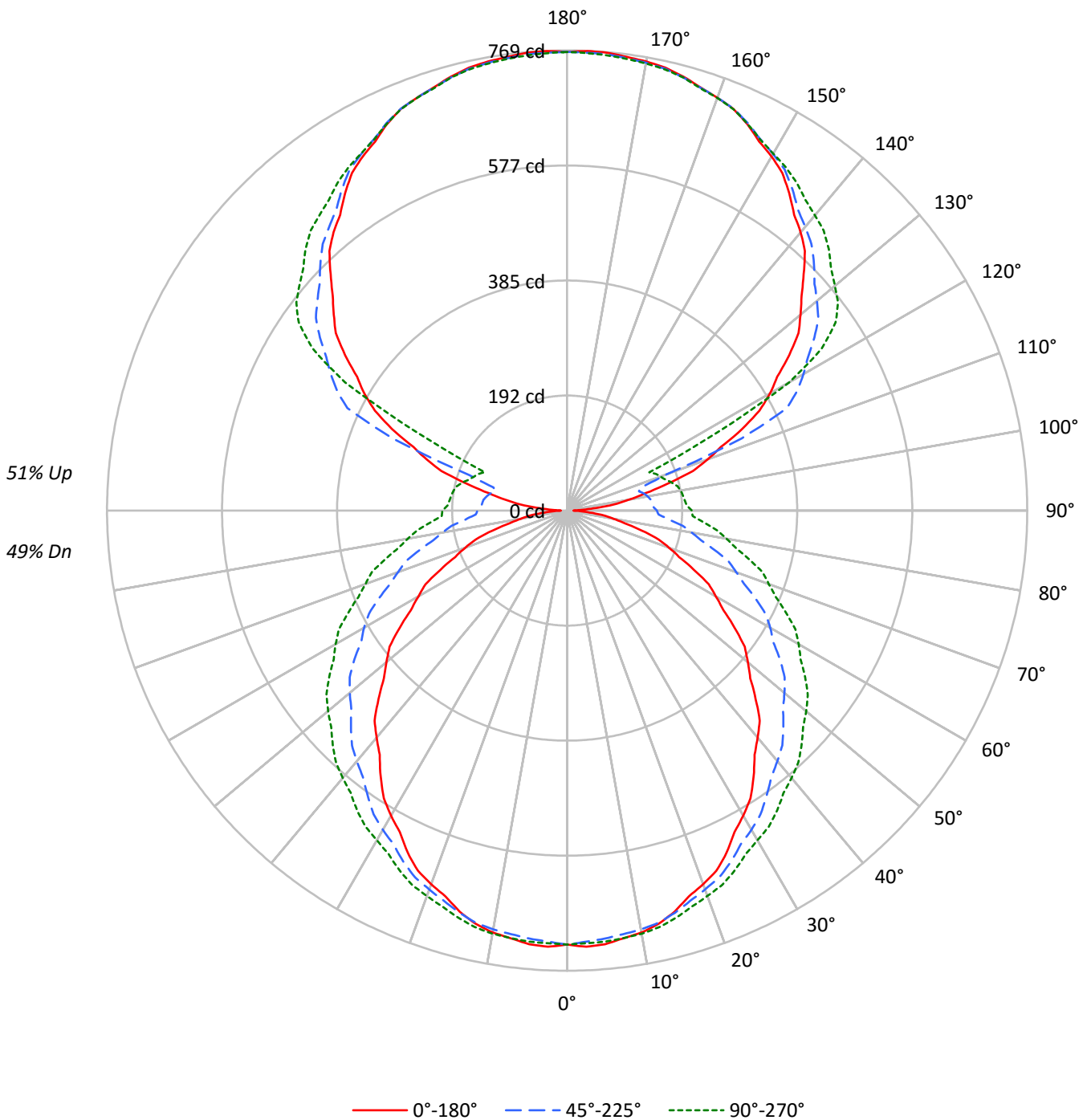
Input Watts (W): 53.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	107	107	107	107	99	99	99	99	83	83	83	68	68	68	55	55	55	49				
1	96	91	87	83	88	84	80	77	70	68	65	58	56	54	47	45	44	38				
2	87	79	72	66	80	73	67	62	61	56	53	50	47	44	40	38	36	31				
3	79	69	61	55	72	63	56	51	53	48	44	44	40	37	35	32	30	25				
4	72	60	52	46	66	56	48	43	47	41	37	39	34	31	31	28	25	21				
5	66	54	45	39	60	50	42	36	42	36	31	35	30	26	28	24	22	18				
6	61	48	40	33	55	44	37	31	38	32	27	31	26	23	25	22	19	16				
7	56	43	35	29	51	40	33	27	34	28	24	28	24	20	23	19	17	14				
8	52	39	31	26	48	36	29	24	31	25	21	26	21	18	21	17	15	12				
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	19	16	13	11				
10	45	33	25	20	41	30	24	19	26	20	17	22	17	14	18	15	12	10				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11711	11711	11711
5°	11768	11274	11230
10°	11694	10940	10818
15°	11533	10587	10382
20°	11328	10209	9963
25°	11128	9845	9582
30°	10845	9471	9201
35°	10557	9109	8932
40°	10256	8801	8662
45°	9969	8526	8433
50°	9662	8276	8207
55°	9341	8008	7975
60°	8945	7730	7732
65°	8536	7405	7441
70°	8073	7053	7130
75°	7484	6710	6841
80°	6553	6361	6548
85°	5671	6056	6323



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.7	1.4
10°-20°	197.1	3.9
20°-30°	298.7	6.0
30°-40°	363.8	7.3
40°-50°	391.3	7.8
50°-60°	380.0	7.6
60°-70°	331.8	6.6
70°-80°	255.5	5.1
80°-90°	173.3	3.5
90°-100°	143.7	2.9
100°-110°	180.0	3.6
110°-120°	307.6	6.1
120°-130°	445.5	8.9
130°-140°	453.3	9.0
140°-150°	411.2	8.2
150°-160°	328.8	6.6
160°-170°	211.9	4.2
170°-180°	72.9	1.5
0°-30°	564.5	11.3
0°-40°	928.2	18.5
0°-60°	1699.6	33.9
0°-90°	2460.3	49.1
90°-120°	631.3	12.6
90°-150°	1941.2	38.7
90°-180°	2555.0	50.9
0°-180°	5015.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	725	725	725	725	725	
5°	727	724	718	724	723	69
15°	694	696	696	705	704	195
25°	631	638	648	660	663	290
35°	543	562	581	604	612	340
45°	446	475	511	542	554	344
55°	342	380	434	471	486	305
65°	233	286	347	388	404	232
75°	129	189	255	299	314	137
85°	38	103	170	213	229	41
90°	11	78	150	193	208	9
95°	44	78	142	184	197	51
105°	174	213	124	166	181	186
115°	323	346	405	191	152	318
125°	453	462	504	535	548	404
135°	559	568	583	610	618	432
145°	647	647	656	666	669	405
155°	713	708	714	717	713	328
165°	751	748	749	753	749	212
175°	768	764	765	769	764	73
180°	766	766	766	766	766	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3
2.5°	729.5	729.0	728.4	727.9	727.3	726.4	725.0	723.7	722.4	721.1	722.1
5°	727.4	726.7	726.0	725.3	724.6	723.6	722.2	720.7	719.4	718.0	719.4
7.5°	720.9	720.4	719.9	719.5	719.1	718.3	717.2	716.1	715.0	714.0	715.7
10°	715.9	715.4	714.9	714.5	714.0	713.4	712.7	712.0	711.3	710.6	712.5
12.5°	707.4	707.6	707.7	707.7	707.8	707.6	707.1	706.5	706.1	705.5	707.4
15°	693.8	694.3	694.7	695.2	695.6	695.9	695.9	695.9	695.9	695.9	698.0
17.5°	676.1	677.1	678.1	679.1	680.0	680.9	681.7	682.4	683.2	683.9	686.1
20°	664.3	665.5	666.7	667.9	669.0	670.1	671.0	671.9	672.9	673.8	676.4
22.5°	651.7	653.1	654.4	655.8	657.1	658.5	659.8	661.1	662.4	663.7	666.3
25°	630.7	632.3	634.0	635.6	637.2	639.1	641.2	643.3	645.4	647.5	650.3
27.5°	605.5	608.2	610.8	613.5	616.2	618.7	621.2	623.7	626.1	628.6	632.2
30°	588.7	591.7	594.8	597.8	600.8	603.9	606.9	609.9	613.0	616.0	619.7
32.5°	570.1	573.5	576.9	580.4	583.8	587.3	590.9	594.5	598.1	601.7	606.0
35°	543.4	547.4	551.4	555.4	559.4	563.6	568.0	572.4	576.9	581.3	586.5
37.5°	514.4	519.0	523.6	528.1	532.7	537.9	543.7	549.5	555.2	560.9	566.6
40°	495.1	500.3	505.4	510.6	515.6	521.4	527.7	534.0	540.3	546.6	552.7
42.5°	476.6	481.7	486.9	492.0	497.2	503.4	510.6	517.8	525.1	532.3	538.9
45°	445.7	452.0	458.3	464.6	471.0	478.2	486.3	494.6	502.7	510.9	518.1
47.5°	415.2	422.1	429.0	435.9	442.7	450.9	460.5	470.1	479.7	489.3	496.8
50°	394.2	401.4	408.7	415.9	423.2	432.1	442.5	453.0	463.6	474.1	482.0
52.5°	374.0	381.6	389.3	396.9	404.5	413.8	424.9	435.9	447.0	458.1	466.2
55°	341.7	350.1	358.5	366.9	375.3	385.6	397.7	409.9	422.0	434.1	442.5
57.5°	309.7	319.2	328.7	338.1	347.6	358.5	370.9	383.3	395.7	408.1	417.2
60°	287.0	297.0	307.0	317.1	327.2	338.8	352.1	365.4	378.7	392.1	401.0
62.5°	266.8	277.2	287.6	298.0	308.5	320.4	333.7	347.0	360.3	373.6	383.0
65°	233.4	244.8	256.3	267.7	279.2	291.8	305.5	319.3	333.1	346.9	356.5
67.5°	202.6	214.6	226.6	238.5	250.5	263.6	277.7	291.8	305.9	320.0	329.6
70°	180.8	193.0	205.1	217.2	229.4	242.7	257.2	271.6	286.1	300.6	310.7
72.5°	160.7	173.2	185.7	198.2	210.7	224.3	239.0	253.7	268.3	283.0	292.9
75°	129.3	142.4	155.4	168.6	181.6	195.7	210.6	225.5	240.5	255.4	265.5
77.5°	99.0	112.7	126.4	140.1	153.8	168.2	183.4	198.6	213.7	228.9	238.9
80°	78.8	93.1	107.3	121.6	135.9	150.5	165.7	180.9	196.1	211.3	221.1
82.5°	62.0	76.0	90.2	104.2	118.3	133.0	148.4	163.7	179.1	194.5	204.3
85°	37.9	52.4	66.8	81.3	95.8	110.5	125.4	140.4	155.3	170.3	180.1
87.5°	20.7	34.9	49.1	63.3	77.5	92.1	107.3	122.5	137.6	152.7	162.4
90°	11.1	26.0	40.9	55.8	70.7	86.1	102.0	118.0	133.9	149.9	159.8
92.5°	20.8	33.4	45.9	58.4	70.8	84.5	99.4	114.3	129.2	144.0	153.5
95°	44.4	51.3	58.3	65.2	72.1	83.0	97.9	112.7	127.6	142.5	152.0
97.5°	78.9	77.2	75.5	73.8	72.1	79.0	94.4	109.9	125.3	140.8	150.0
100°	105.5	97.3	89.0	80.8	72.6	76.0	91.2	106.4	121.5	136.7	146.4
102.5°	134.0	138.3	142.6	146.9	151.2	151.0	146.2	141.3	136.6	131.7	141.5
105°	173.9	184.3	194.8	205.3	215.7	210.2	188.7	167.2	145.8	124.2	133.8
107.5°	220.5	228.9	237.3	245.7	254.1	244.0	215.3	186.6	157.9	129.1	135.6
110°	249.9	257.1	264.4	271.6	278.9	270.5	246.3	222.1	198.0	173.8	169.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	278.3	284.5	290.7	296.9	303.2	307.3	309.3	311.5	313.5	315.6	278.1
115°	323.1	327.7	332.4	337.1	341.7	350.9	364.5	378.0	391.7	405.2	355.2
117.5°	362.1	366.1	370.1	374.1	378.2	386.1	397.9	409.8	421.6	433.5	426.6
120°	391.3	394.1	396.9	399.7	402.5	409.6	421.2	432.8	444.3	455.9	463.9
122.5°	416.2	418.5	420.8	423.2	425.5	432.2	443.5	454.6	465.8	477.1	484.3
125°	453.0	454.6	456.1	457.8	459.4	465.1	474.9	484.7	494.6	504.4	511.5
127.5°	487.3	488.8	490.4	491.9	493.4	498.0	505.8	513.7	521.4	529.2	536.2
130°	509.0	510.7	512.5	514.2	515.9	519.9	526.2	532.4	538.7	544.9	551.9
132.5°	531.2	532.6	534.0	535.5	536.9	540.2	545.3	550.5	555.6	560.8	567.4
135°	559.0	560.9	562.9	564.8	566.8	569.6	573.0	576.5	579.9	583.4	589.5
137.5°	588.1	589.5	590.8	592.2	593.4	595.2	597.5	599.8	602.1	604.4	609.9
140°	607.2	607.9	608.7	609.4	610.2	611.5	613.3	615.1	617.0	618.8	623.6
142.5°	623.1	623.8	624.5	625.1	625.7	626.9	628.6	630.3	631.8	633.5	637.5
145°	647.2	647.1	647.0	646.8	646.7	647.7	649.7	651.9	653.9	656.1	658.3
147.5°	669.0	668.6	668.1	667.7	667.2	668.0	670.0	672.1	674.1	676.2	677.1
150°	683.3	682.4	681.5	680.6	679.8	680.3	682.3	684.3	686.3	688.2	689.0
152.5°	695.2	694.3	693.3	692.3	691.3	691.8	693.7	695.5	697.4	699.3	700.1
155°	712.6	711.5	710.4	709.3	708.2	708.4	709.9	711.3	712.8	714.3	715.0
157.5°	726.3	725.3	724.4	723.4	722.5	722.5	723.6	724.6	725.6	726.7	727.5
160°	734.3	733.5	732.8	732.1	731.3	731.3	732.1	732.8	733.5	734.3	735.0
162.5°	741.3	740.6	739.9	739.1	738.4	738.3	738.9	739.7	740.3	740.9	741.7
165°	750.9	750.1	749.4	748.7	747.9	747.7	748.1	748.5	748.8	749.2	750.1
167.5°	758.0	757.2	756.5	755.7	755.0	754.9	755.2	755.5	755.9	756.2	757.1
170°	762.0	761.2	760.5	759.8	759.0	758.8	759.0	759.3	759.5	759.8	760.7
172.5°	764.6	763.9	763.2	762.4	761.7	761.4	761.7	761.9	762.2	762.4	763.3
175°	768.1	767.2	766.4	765.5	764.6	764.3	764.5	764.9	765.1	765.3	766.2
177.5°	768.7	767.9	767.2	766.6	765.9	765.6	765.6	765.8	765.9	766.0	766.7
180°	766.4	766.4	766.4	766.4	766.4	766.4	766.4	766.4	766.4	766.4	766.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3
2.5°	722.9	723.9	724.8	725.2	724.8	724.4	724.0	723.7
5°	720.7	722.2	723.6	724.1	723.9	723.7	723.4	723.2
7.5°	717.3	719.0	720.7	721.4	721.2	721.0	720.7	720.5
10°	714.3	716.2	718.1	718.9	718.7	718.4	718.2	718.0
12.5°	709.3	711.1	713.0	713.8	713.6	713.4	713.1	712.9
15°	700.1	702.2	704.3	705.2	705.0	704.7	704.5	704.3
17.5°	688.3	690.5	692.7	693.8	693.8	693.8	693.8	693.8
20°	679.0	681.5	684.0	685.4	685.4	685.4	685.4	685.4
22.5°	668.8	671.5	674.0	675.5	675.8	676.2	676.6	677.0
25°	653.2	655.9	658.8	660.5	661.2	661.9	662.6	663.3
27.5°	635.7	639.3	642.8	644.8	645.4	645.9	646.4	646.9
30°	623.4	627.2	631.0	633.2	633.8	634.5	635.3	636.0
32.5°	610.3	614.6	618.9	621.7	622.9	624.2	625.4	626.7
35°	591.6	596.8	601.9	605.2	606.9	608.6	610.1	611.8
37.5°	572.3	578.0	583.7	587.4	589.1	590.9	592.6	594.4
40°	558.7	564.8	570.9	575.0	577.1	579.2	581.3	583.4
42.5°	545.6	552.2	558.9	563.2	565.3	567.4	569.5	571.6
45°	525.4	532.6	539.9	544.6	547.0	549.3	551.7	554.0
47.5°	504.4	511.9	519.5	524.6	527.1	529.7	532.3	534.9
50°	490.0	497.9	505.9	511.1	513.7	516.3	518.8	521.4
52.5°	474.4	482.5	490.6	496.1	498.8	501.6	504.3	507.1
55°	451.0	459.4	467.8	473.5	476.5	479.6	482.6	485.6
57.5°	426.2	435.2	444.3	450.4	453.4	456.5	459.6	462.7
60°	409.9	418.7	427.6	433.6	437.0	440.2	443.5	446.8
62.5°	392.4	401.9	411.3	417.6	420.6	423.7	426.8	429.9
65°	366.1	375.7	385.2	391.5	394.5	397.6	400.6	403.6
67.5°	339.3	349.0	358.7	365.1	368.3	371.5	374.6	377.8
70°	320.8	330.7	340.8	347.2	350.1	352.8	355.7	358.5
72.5°	302.7	312.5	322.4	329.0	332.4	335.7	339.1	342.5
75°	275.5	285.6	295.6	302.1	305.2	308.2	311.2	314.3
77.5°	249.0	259.0	268.9	275.6	278.8	282.1	285.4	288.7
80°	230.9	240.7	250.6	257.1	260.3	263.6	266.9	270.1
82.5°	214.1	223.9	233.7	240.2	243.3	246.3	249.4	252.5
85°	189.9	199.7	209.5	216.1	219.4	222.6	225.9	229.2
87.5°	172.1	181.7	191.4	197.7	200.7	203.8	206.8	209.8
90°	169.8	179.7	189.6	196.2	199.2	202.3	205.3	208.4
92.5°	163.0	172.5	182.0	188.1	191.2	194.1	197.0	199.9
95°	161.5	171.0	180.5	186.6	189.3	191.9	194.6	197.3
97.5°	159.1	168.2	177.4	183.4	186.2	189.2	192.1	195.0
100°	156.0	165.6	175.2	181.5	184.3	187.1	189.9	192.7
102.5°	151.2	161.0	170.7	177.0	179.9	182.8	185.8	188.7
105°	143.3	152.8	162.3	168.7	171.7	174.8	177.8	180.9
107.5°	142.1	148.5	155.0	159.8	162.9	165.9	169.0	172.1
110°	164.1	159.2	154.4	153.5	156.5	159.6	162.7	165.7



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CATALOG NUMBER: S122DIW-S865D710U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	240.7	203.2	165.7	148.5	151.4	154.4	157.3	160.3
115°	305.1	255.1	205.0	176.9	170.6	164.2	158.0	151.6
117.5°	419.7	412.8	405.9	389.0	362.3	335.5	308.7	281.9
120°	472.0	480.0	488.0	485.0	470.9	456.9	442.8	428.6
122.5°	491.5	498.8	506.0	509.1	508.1	507.1	506.0	504.9
125°	518.7	525.9	533.1	537.8	540.3	542.8	545.3	547.7
127.5°	543.3	550.3	557.4	562.0	564.1	566.3	568.3	570.5
130°	558.9	565.9	572.8	577.2	578.9	580.7	582.4	584.2
132.5°	573.9	580.5	587.1	591.3	593.0	594.8	596.5	598.3
135°	595.6	601.7	607.8	611.7	613.4	615.0	616.6	618.2
137.5°	615.4	620.9	626.5	629.8	630.9	632.1	633.3	634.5
140°	628.4	633.3	638.2	641.0	641.7	642.5	643.3	644.1
142.5°	641.5	645.5	649.5	651.8	652.4	653.0	653.6	654.2
145°	660.6	662.8	665.1	666.5	667.1	667.7	668.2	668.8
147.5°	677.9	678.7	679.5	680.0	680.0	680.1	680.1	680.2
150°	689.7	690.5	691.2	691.3	690.6	690.0	689.4	688.8
152.5°	700.8	701.6	702.3	702.3	701.4	700.6	699.8	698.9
155°	715.7	716.5	717.2	717.1	716.1	715.2	714.2	713.2
157.5°	728.4	729.2	730.1	730.0	729.0	728.1	727.1	726.1
160°	735.7	736.5	737.2	737.1	736.3	735.4	734.6	733.7
162.5°	742.6	743.4	744.3	744.2	743.1	742.0	740.9	739.9
165°	751.0	751.8	752.7	752.7	751.8	751.0	750.1	749.2
167.5°	758.0	758.8	759.6	759.5	758.4	757.3	756.2	755.1
170°	761.5	762.3	763.2	763.1	762.0	760.9	759.8	758.7
172.5°	764.1	765.0	765.9	765.7	764.6	763.5	762.4	761.3
175°	767.1	767.9	768.7	768.6	767.3	766.1	764.9	763.7
177.5°	767.4	768.0	768.7	768.7	767.8	766.8	766.0	765.1
180°	766.4	766.4	766.4	766.4	766.4	766.4	766.4	766.4

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