

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: P333408-927

Luminaire Tested: **S125DIW-S850D770U927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333408-927  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIW-S850D770U927-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 770 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5032.5 lumens  
Efficiency: N/A  
Efficacy: 111.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: General Diffuse

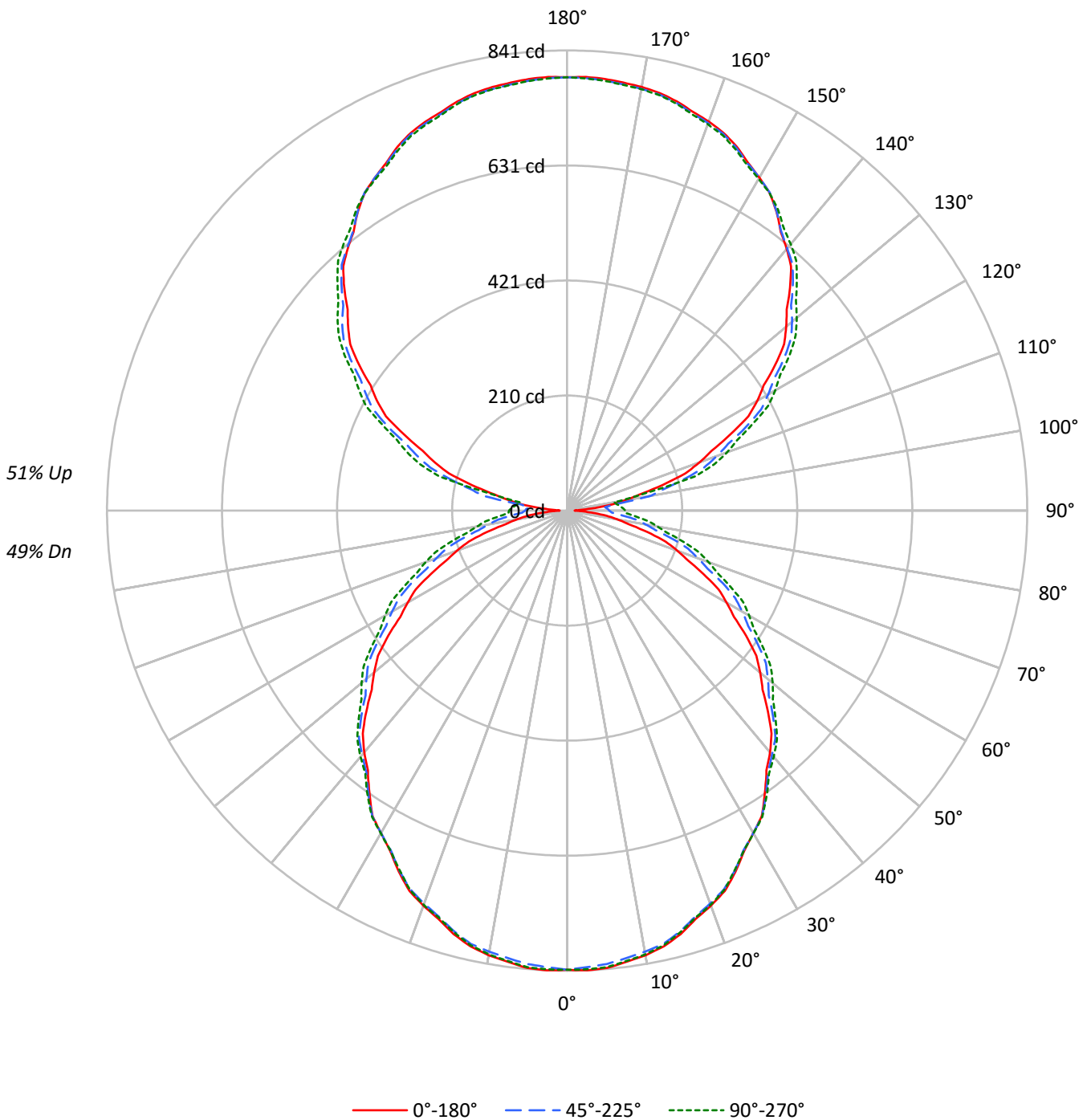
Input Watts (W): 45  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333408-927

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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	107	107	107	107	98	98	98	98	83	83	83	68	68	68	55	55	55	49
1	97	92	88	84	89	85	81	78	71	69	66	59	57	55	47	46	45	39
2	88	80	74	68	80	74	68	63	62	58	54	51	48	46	41	39	37	32
3	80	70	62	56	73	65	58	53	54	49	45	45	41	38	36	34	31	27
4	73	62	54	48	67	57	50	44	48	43	38	40	36	33	32	29	27	23
5	67	55	47	41	61	51	43	38	43	37	33	36	31	28	29	26	23	20
6	62	49	41	35	56	46	38	33	39	33	29	32	28	24	26	23	20	17
7	57	44	36	31	52	41	34	29	35	29	25	29	25	22	24	21	18	15
8	53	40	32	27	48	37	30	25	32	26	22	27	22	19	22	19	16	14
9	49	37	29	24	45	34	27	23	29	24	20	25	20	17	20	17	15	12
10	46	34	26	21	42	31	25	20	27	22	18	23	18	16	19	16	13	11

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5420	5420	5420
5°	5431	5320	5337
10°	5392	5225	5217
15°	5329	5111	5064
20°	5241	4970	4912
25°	5139	4820	4724
30°	5014	4654	4554
35°	4897	4502	4398
40°	4778	4342	4241
45°	4644	4205	4102
50°	4517	4056	3979
55°	4363	3916	3833
60°	4195	3756	3686
65°	4020	3589	3520
70°	3820	3359	3349
75°	3505	3139	3139
80°	3093	2872	2910
85°	2705	2693	2839



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.4	1.6
10°-20°	225.3	4.5
20°-30°	335.0	6.7
30°-40°	396.8	7.9
40°-50°	410.3	8.2
50°-60°	377.9	7.5
60°-70°	305.5	6.1
70°-80°	204.6	4.1
80°-90°	107.8	2.1
90°-100°	88.3	1.8
100°-110°	221.2	4.4
110°-120°	351.1	7.0
120°-130°	429.5	8.5
130°-140°	451.3	9.0
140°-150°	418.2	8.3
150°-160°	337.1	6.7
160°-170°	218.0	4.3
170°-180°	75.2	1.5
0°-30°	639.6	12.7
0°-40°	1036.4	20.6
0°-60°	1824.7	36.3
0°-90°	2442.5	48.5
90°-120°	660.6	13.1
90°-150°	1959.6	38.9
90°-180°	2590.0	51.5
0°-180°	5032.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	839	839	839	839	839	
5°	839	837	832	838	838	80
15°	801	802	796	801	798	226
25°	728	730	726	729	725	335
35°	630	636	634	636	636	394
45°	519	528	532	538	539	400
55°	399	412	425	434	438	357
65°	275	294	314	325	329	273
75°	151	173	199	215	220	161
85°	45	72	101	119	126	48
90°	14	45	77	98	106	10
95°	44	63	70	90	96	51
105°	180	196	220	236	242	191
115°	329	338	360	371	374	326
125°	464	468	484	494	497	414
135°	576	579	584	593	594	444
145°	667	667	667	672	672	417
155°	734	730	731	733	728	338
165°	774	771	771	774	770	219
175°	792	789	789	793	788	75
180°	792	792	792	792	792	



TEST NUMBER: P333408-927

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2
2.5°	841.1	840.9	840.6	840.3	840.0	839.3	838.3	837.3	836.2	835.2	836.2
5°	839.2	838.8	838.4	838.0	837.7	836.9	835.6	834.3	833.1	831.8	833.2
7.5°	831.8	831.6	831.5	831.3	831.2	830.4	829.2	827.8	826.5	825.2	826.5
10°	825.2	825.2	825.2	825.2	825.2	824.5	823.0	821.6	820.1	818.6	819.9
12.5°	815.9	816.1	816.3	816.4	816.6	816.0	814.9	813.7	812.5	811.4	812.4
15°	801.4	801.5	801.7	801.8	802.1	801.5	800.3	799.0	797.6	796.4	797.5
17.5°	782.3	782.6	783.0	783.3	783.7	783.2	782.0	780.7	779.4	778.2	779.0
20°	768.4	768.8	769.1	769.5	769.9	769.4	768.2	766.9	765.6	764.3	764.9
22.5°	752.7	753.3	753.9	754.6	755.3	754.9	753.4	752.0	750.6	749.2	749.9
25°	728.1	728.6	729.2	729.8	730.3	730.0	729.0	727.9	726.7	725.6	726.4
27.5°	700.8	701.6	702.4	703.2	704.0	703.8	702.6	701.3	700.1	698.9	699.3
30°	680.4	681.5	682.6	683.7	684.8	684.8	683.7	682.6	681.5	680.4	680.8
32.5°	661.9	662.9	663.8	664.8	665.7	665.8	665.0	664.2	663.5	662.7	663.0
35°	630.2	631.5	632.8	634.1	635.3	635.7	635.2	634.6	634.1	633.5	634.1
37.5°	598.4	599.6	600.8	602.0	603.2	603.6	603.4	603.2	603.1	602.9	603.6
40°	576.7	578.2	579.6	581.1	582.6	583.2	583.0	582.9	582.7	582.5	583.2
42.5°	553.0	554.9	556.8	558.7	560.6	561.8	562.2	562.6	563.0	563.4	564.3
45°	519.1	521.2	523.2	525.1	527.2	528.6	529.6	530.4	531.4	532.3	533.6
47.5°	484.4	486.3	488.1	490.0	491.9	493.6	495.2	496.8	498.3	499.9	501.8
50°	460.7	462.7	464.8	466.8	468.7	470.8	472.8	474.8	476.8	478.8	480.9
52.5°	435.7	438.2	440.6	443.1	445.5	448.0	450.4	452.9	455.3	457.8	459.9
55°	399.0	402.0	404.9	407.8	410.7	413.7	416.6	419.5	422.4	425.3	427.4
57.5°	361.5	365.0	368.5	372.0	375.6	379.0	382.4	385.7	389.0	392.4	394.7
60°	336.5	340.2	343.8	347.5	351.1	354.8	358.5	362.1	365.8	369.4	372.2
62.5°	312.1	315.8	319.5	323.1	326.8	330.6	334.5	338.5	342.4	346.3	349.4
65°	274.8	279.0	283.2	287.4	291.6	295.9	300.3	304.7	309.1	313.5	316.2
67.5°	239.6	243.7	247.7	251.8	255.8	260.1	264.5	269.0	273.5	277.9	281.2
70°	213.9	218.1	222.3	226.6	230.8	235.2	240.0	244.7	249.5	254.2	257.7
72.5°	188.9	193.2	197.6	201.9	206.3	211.0	216.3	221.5	226.6	231.9	235.6
75°	151.4	156.1	160.9	165.6	170.4	175.7	181.6	187.4	193.2	199.1	202.7
77.5°	115.3	120.8	126.4	131.8	137.3	142.8	148.5	154.1	159.7	165.4	169.4
80°	93.0	98.5	103.9	109.4	114.9	120.7	127.0	133.2	139.4	145.6	149.6
82.5°	72.6	78.3	84.1	89.9	95.7	101.7	108.1	114.5	120.8	127.2	131.1
85°	45.2	51.3	57.4	63.4	69.4	75.6	82.0	88.4	94.8	101.2	105.2
87.5°	25.8	31.8	37.9	44.0	50.0	56.2	62.7	69.1	75.4	81.8	86.2
90°	13.8	20.7	27.6	34.5	41.4	48.3	55.5	62.6	69.7	76.8	81.7
92.5°	20.9	25.6	30.3	34.9	39.6	45.6	52.7	59.9	67.0	74.2	78.9
95°	44.1	48.5	52.8	57.3	61.6	64.4	65.7	66.9	68.2	69.5	74.1
97.5°	79.5	84.5	89.5	94.5	99.5	100.1	96.3	92.4	88.6	84.8	85.0
100°	107.1	111.3	115.5	119.8	124.0	129.3	135.7	142.0	148.5	154.8	139.2
102.5°	135.1	139.1	143.1	147.2	151.2	156.3	162.3	168.3	174.3	180.3	180.4
105°	180.0	183.4	186.9	190.3	193.8	198.2	203.7	209.2	214.7	220.1	223.8
107.5°	226.6	229.1	231.6	234.1	236.6	240.6	246.1	251.7	257.2	262.7	266.3
110°	257.0	259.2	261.3	263.6	265.8	269.6	275.0	280.3	285.7	291.0	294.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	286.1	288.2	290.3	292.3	294.4	297.9	303.1	308.2	313.4	318.5	321.3
115°	328.9	330.9	332.8	334.8	336.7	340.1	345.0	349.8	354.7	359.7	362.4
117.5°	373.4	374.1	374.9	375.7	376.6	379.5	384.4	389.4	394.4	399.5	401.9
120°	401.5	402.0	402.3	402.7	403.1	405.7	410.3	414.9	419.5	424.1	426.9
122.5°	425.7	426.5	427.2	428.0	428.7	431.3	435.5	439.7	443.9	448.2	450.9
125°	464.1	464.8	465.6	466.3	467.0	469.2	472.9	476.5	480.1	483.8	486.2
127.5°	500.0	500.4	500.9	501.4	501.8	503.6	506.5	509.4	512.3	515.2	517.7
130°	522.5	523.0	523.5	523.9	524.4	526.0	528.7	531.4	534.1	536.8	538.9
132.5°	544.4	545.1	545.8	546.6	547.3	548.5	550.2	551.8	553.6	555.2	557.7
135°	576.3	576.9	577.5	578.1	578.7	579.5	580.5	581.5	582.6	583.6	585.7
137.5°	605.6	606.1	606.7	607.2	607.8	608.2	608.6	609.0	609.3	609.7	612.0
140°	624.2	624.5	624.7	625.0	625.3	625.4	625.4	625.5	625.6	625.6	627.9
142.5°	641.6	641.6	641.6	641.6	641.6	641.7	641.9	642.1	642.4	642.6	644.4
145°	667.0	667.1	667.2	667.3	667.3	667.4	667.4	667.4	667.4	667.4	668.4
147.5°	688.6	688.5	688.4	688.4	688.3	688.4	688.6	688.6	688.8	689.0	689.4
150°	702.6	702.3	702.1	701.8	701.6	701.6	701.8	702.1	702.3	702.6	702.9
152.5°	716.2	715.7	715.1	714.5	713.9	713.8	714.1	714.3	714.5	714.8	715.1
155°	733.7	732.9	732.1	731.3	730.6	730.3	730.6	730.9	731.1	731.3	731.7
157.5°	747.2	746.8	746.3	745.8	745.4	745.1	745.1	745.2	745.2	745.2	745.7
160°	756.6	755.8	755.0	754.2	753.5	753.1	753.3	753.4	753.5	753.7	754.2
162.5°	764.1	763.3	762.6	761.8	761.0	760.7	760.8	761.0	761.0	761.2	761.9
165°	774.2	773.4	772.7	771.9	771.1	770.8	770.9	771.0	771.2	771.3	772.1
167.5°	781.7	780.9	780.1	779.3	778.5	778.2	778.3	778.4	778.6	778.7	779.6
170°	786.0	785.1	784.1	783.2	782.3	781.9	782.0	782.2	782.3	782.4	783.5
172.5°	788.8	787.9	787.0	786.0	785.1	784.8	785.1	785.3	785.5	785.8	786.6
175°	791.9	791.1	790.3	789.5	788.7	788.4	788.5	788.6	788.8	788.9	790.0
177.5°	793.2	792.6	792.0	791.4	790.8	790.4	790.6	790.7	790.8	790.9	791.6
180°	791.9	791.9	791.9	791.9	791.9	791.9	791.9	791.9	791.9	791.9	791.9



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2
2.5°	837.3	838.3	839.3	839.8	839.6	839.5	839.3	839.2
5°	834.7	836.1	837.7	838.3	838.0	837.9	837.7	837.6
7.5°	827.8	829.0	830.3	830.8	830.7	830.5	830.3	830.1
10°	821.2	822.4	823.7	824.3	824.1	823.9	823.7	823.6
12.5°	813.3	814.4	815.3	815.6	815.1	814.6	814.1	813.7
15°	798.6	799.7	800.8	801.0	800.3	799.5	798.8	798.0
17.5°	779.8	780.7	781.5	781.7	781.3	780.9	780.4	780.0
20°	765.4	766.0	766.5	766.8	766.8	766.8	766.8	766.8
22.5°	750.6	751.2	751.9	752.1	751.6	751.2	750.8	750.4
25°	727.1	727.9	728.6	728.5	727.5	726.7	725.7	724.8
27.5°	699.8	700.4	700.8	701.0	700.6	700.3	700.0	699.7
30°	681.1	681.5	681.8	682.0	681.8	681.6	681.4	681.2
32.5°	663.4	663.7	664.1	664.2	664.0	663.8	663.6	663.5
35°	634.6	635.2	635.7	636.0	636.0	636.0	636.0	636.0
37.5°	604.4	605.1	605.8	606.2	606.1	606.0	605.9	605.9
40°	583.9	584.7	585.4	586.0	586.3	586.7	587.1	587.4
42.5°	565.1	566.0	566.9	567.4	567.4	567.5	567.6	567.7
45°	534.9	536.1	537.4	538.1	538.4	538.5	538.7	538.9
47.5°	503.6	505.5	507.3	508.5	508.9	509.3	509.7	510.1
50°	482.8	484.9	486.9	488.1	488.7	489.3	489.8	490.4
52.5°	462.1	464.2	466.4	467.7	468.1	468.5	468.9	469.3
55°	429.4	431.4	433.4	434.7	435.5	436.3	437.0	437.7
57.5°	397.0	399.3	401.6	403.1	403.6	404.2	404.7	405.3
60°	374.9	377.6	380.4	382.0	382.5	383.1	383.7	384.2
62.5°	352.4	355.5	358.5	360.4	361.1	361.8	362.4	363.1
65°	318.9	321.7	324.4	326.1	326.9	327.6	328.4	329.1
67.5°	284.6	287.9	291.2	293.3	294.3	295.2	296.2	297.1
70°	261.2	264.7	268.2	270.4	271.5	272.6	273.7	274.8
72.5°	239.4	243.1	246.9	249.2	250.0	250.8	251.6	252.4
75°	206.4	210.1	213.7	216.0	216.9	217.9	218.7	219.7
77.5°	173.4	177.4	181.5	183.9	184.6	185.3	186.0	186.8
80°	153.7	157.7	161.7	164.1	164.9	165.6	166.3	167.0
82.5°	134.9	138.8	142.7	145.3	146.6	147.9	149.2	150.6
85°	109.2	113.3	117.3	120.0	121.5	122.9	124.5	125.9
87.5°	90.5	94.8	99.2	102.0	103.4	104.7	106.1	107.5
90°	86.6	91.4	96.3	99.6	101.2	102.9	104.6	106.2
92.5°	83.7	88.3	93.1	96.2	97.6	99.1	100.5	102.0
95°	78.8	83.5	88.2	91.1	92.4	93.7	95.0	96.3
97.5°	85.2	85.3	85.5	86.2	87.4	88.6	89.9	91.2
100°	123.6	108.0	92.4	84.9	85.5	86.0	86.6	87.2
102.5°	180.4	180.4	180.4	176.5	168.7	161.0	153.2	145.4
105°	227.5	231.2	234.8	237.2	238.4	239.5	240.7	241.8
107.5°	270.0	273.6	277.3	279.5	280.2	281.0	281.7	282.5
110°	297.2	300.3	303.4	305.6	307.0	308.5	309.9	311.2





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CATALOG NUMBER: S125DIW-S850D770U927-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	324.2	327.0	329.8	331.8	332.9	334.0	335.1	336.2
115°	365.2	367.9	370.7	372.2	372.6	372.9	373.2	373.5
117.5°	404.3	406.8	409.2	410.8	411.8	412.6	413.5	414.5
120°	429.8	432.6	435.5	437.1	437.5	438.0	438.4	438.9
122.5°	453.6	456.3	459.0	460.5	460.9	461.2	461.5	461.9
125°	488.6	491.0	493.5	494.9	495.4	495.9	496.5	497.0
127.5°	520.1	522.5	524.9	526.2	526.2	526.4	526.5	526.6
130°	541.1	543.3	545.4	546.6	546.9	547.2	547.4	547.7
132.5°	560.2	562.7	565.1	566.5	566.6	566.7	566.8	567.0
135°	587.8	589.9	592.1	593.2	593.3	593.4	593.6	593.7
137.5°	614.2	616.4	618.5	619.7	619.7	619.8	619.9	619.9
140°	630.2	632.4	634.7	635.8	635.7	635.7	635.6	635.6
142.5°	646.1	647.9	649.7	650.5	650.5	650.5	650.4	650.3
145°	669.5	670.5	671.6	672.1	672.0	671.9	671.9	671.8
147.5°	689.9	690.3	690.8	690.7	690.1	689.5	688.9	688.2
150°	703.1	703.4	703.7	703.4	702.5	701.6	700.8	699.9
152.5°	715.3	715.6	715.9	715.6	714.6	713.8	712.8	711.9
155°	732.1	732.5	732.9	732.6	731.6	730.6	729.5	728.4
157.5°	746.1	746.5	746.9	746.6	745.5	744.5	743.5	742.4
160°	754.7	755.3	755.7	755.5	754.5	753.4	752.4	751.3
162.5°	762.6	763.3	764.1	763.9	762.8	761.6	760.5	759.3
165°	772.9	773.6	774.4	774.3	773.2	772.2	771.2	770.1
167.5°	780.5	781.5	782.4	782.4	781.2	780.0	778.8	777.6
170°	784.5	785.6	786.6	786.6	785.4	784.2	783.0	781.9
172.5°	787.6	788.5	789.5	789.3	788.2	787.0	785.8	784.7
175°	791.0	792.0	793.1	793.0	791.9	790.7	789.5	788.3
177.5°	792.3	793.1	793.8	793.8	792.9	792.1	791.2	790.4
180°	791.9	791.9	791.9	791.9	791.9	791.9	791.9	791.9

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