

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: P333402-927

Luminaire Tested: **S125DIW-S850D470U927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333402-927
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-S850D470U927-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 470 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4084.8 lumens
Efficiency: N/A
Efficacy: 108.4 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

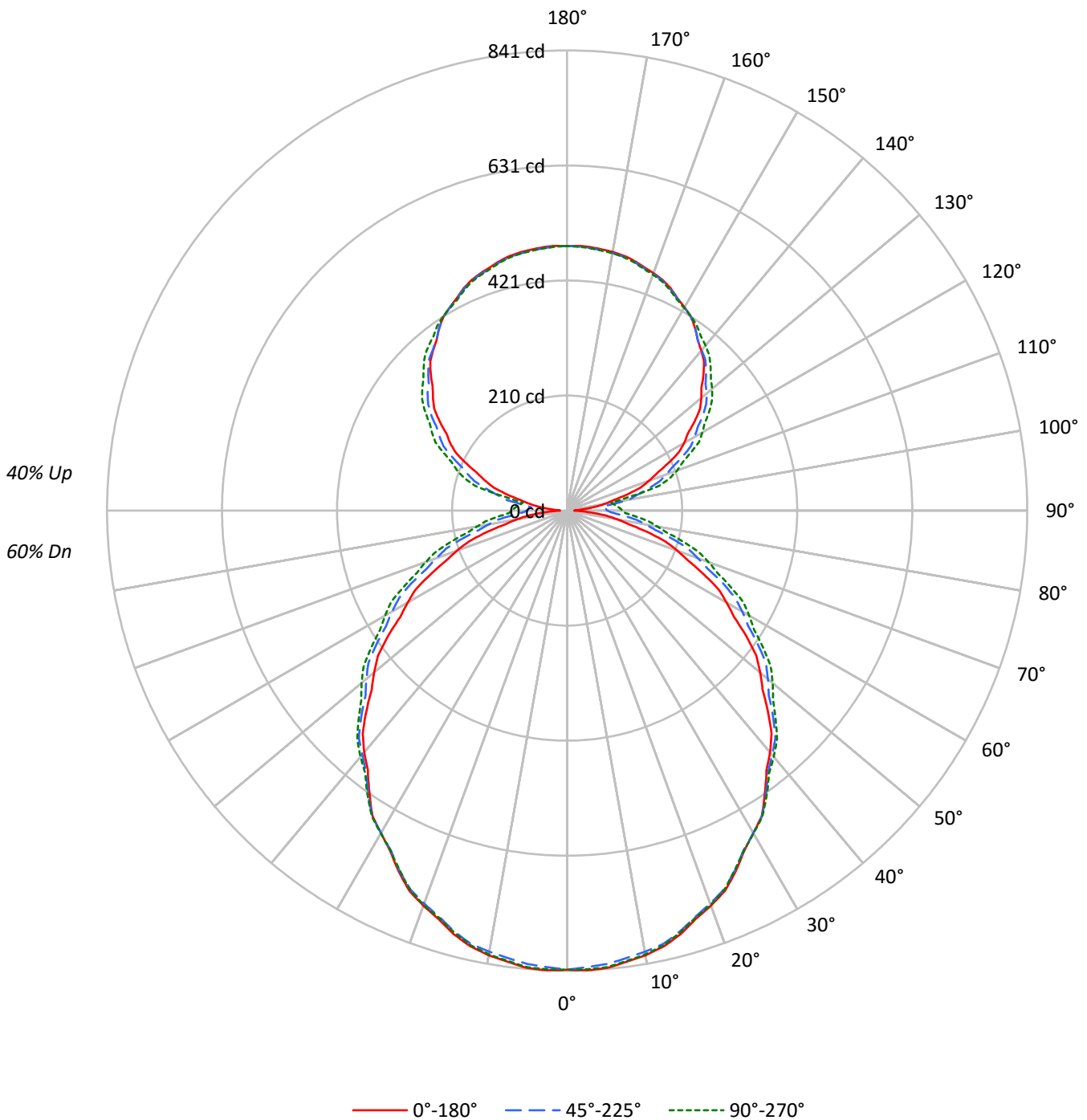
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P333402-927

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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	109	109	109	109	102	102	102	102	89	89	89	76	76	76	65	65	65	60
1	99	94	90	86	92	88	84	81	77	74	71	66	64	62	56	55	53	49
2	90	82	75	70	84	77	71	66	67	62	58	57	54	51	49	46	44	40
3	82	72	64	58	76	67	60	55	58	53	49	50	46	43	43	40	37	33
4	75	63	55	49	69	59	52	46	52	46	41	45	40	36	38	35	32	28
5	69	56	48	42	64	53	45	39	46	40	35	40	35	31	34	31	28	25
6	63	51	42	36	59	47	40	34	42	35	31	36	31	27	31	27	24	21
7	58	46	37	32	54	43	35	30	38	32	27	33	28	24	28	24	21	19
8	54	41	33	28	50	39	32	27	34	28	24	30	25	22	26	22	19	17
9	50	38	30	25	47	36	29	24	32	26	22	28	23	19	24	20	17	15
10	47	35	27	22	44	33	26	21	29	23	19	26	21	18	22	19	16	14

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	1.9
10°-20°	225.3	5.5
20°-30°	335.0	8.2
30°-40°	396.8	9.7
40°-50°	410.3	10.0
50°-60°	377.9	9.3
60°-70°	305.5	7.5
70°-80°	204.6	5.0
80°-90°	107.1	2.6
90°-100°	77.1	1.9
100°-110°	152.2	3.7
110°-120°	225.8	5.5
120°-130°	268.7	6.6
130°-140°	278.4	6.8
140°-150°	255.9	6.3
150°-160°	205.8	5.0
160°-170°	133.1	3.3
170°-180°	45.9	1.1
0°-30°	639.6	15.7
0°-40°	1036.4	25.4
0°-60°	1824.7	44.7
0°-90°	2441.9	59.8
90°-120°	455.1	11.1
90°-150°	1258.1	30.8
90°-180°	1643.0	40.2
0°-180°	4084.8	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	43	73	93	101	10
95°	31	51	66	85	91	34
105°	113	128	152	168	174	120
115°	203	211	232	245	248	201
125°	285	287	303	314	318	254
135°	352	354	359	368	371	272
145°	408	408	408	412	413	255
155°	448	446	447	447	445	206
165°	473	471	471	473	470	133
175°	484	481	482	484	481	46
180°	484	484	484	484	484	



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CATALOG NUMBER: S125DIW-S850D470U927-4F0-1E-UDD-D

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°	25.7	31.7	37.7	43.6	49.7	55.8	62.1	68.4	74.8	81.1	85.4
90°	13.5	20.0	26.5	33.0	39.5	46.1	52.8	59.7	66.4	73.2	77.8
92.5°	17.3	22.3	27.3	32.2	37.2	43.2	50.0	56.9	63.7	70.6	75.0
95°	31.1	35.6	40.2	44.7	49.2	53.0	56.2	59.4	62.6	65.8	70.2
97.5°	52.4	57.0	61.8	66.5	71.2	73.5	73.6	73.6	73.6	73.6	75.2
100°	68.9	73.0	77.1	81.1	85.2	90.3	96.5	102.7	108.8	115.0	107.0
102.5°	85.7	89.6	93.4	97.3	101.2	106.0	111.9	117.8	123.7	129.6	131.0
105°	112.8	116.0	119.2	122.5	125.7	130.1	135.6	141.1	146.6	152.0	155.7
107.5°	140.9	143.4	145.8	148.4	150.8	154.8	160.2	165.6	171.0	176.5	180.1
110°	159.1	161.4	163.5	165.7	167.9	171.7	177.0	182.2	187.5	192.7	196.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	176.9	178.9	180.8	182.8	184.7	188.2	193.3	198.4	203.4	208.5	211.5
115°	202.8	204.5	206.1	207.8	209.5	212.7	217.5	222.4	227.2	232.0	235.0
117.5°	229.5	230.4	231.2	232.0	232.8	235.7	240.4	245.3	250.0	254.8	257.5
120°	246.8	247.2	247.6	248.1	248.6	251.0	255.5	260.0	264.4	268.9	271.8
122.5°	261.3	261.8	262.4	262.9	263.5	265.9	270.1	274.2	278.4	282.6	285.3
125°	284.6	285.0	285.3	285.7	286.1	288.1	291.8	295.5	299.1	302.8	305.4
127.5°	306.3	306.4	306.7	306.9	307.1	308.7	311.6	314.6	317.5	320.4	323.0
130°	320.0	320.2	320.4	320.7	320.8	322.3	325.0	327.6	330.2	332.9	335.2
132.5°	333.1	333.5	334.0	334.4	334.8	335.9	337.7	339.5	341.3	343.1	345.6
135°	352.5	352.8	353.1	353.4	353.7	354.4	355.5	356.6	357.7	358.9	361.1
137.5°	370.3	370.6	370.8	371.1	371.4	371.8	372.2	372.7	373.2	373.7	375.9
140°	381.4	381.6	381.8	381.9	382.1	382.2	382.3	382.4	382.5	382.6	384.8
142.5°	392.1	392.0	391.9	391.9	391.8	391.9	392.1	392.2	392.3	392.4	394.2
145°	407.6	407.6	407.5	407.5	407.5	407.5	407.5	407.5	407.5	407.5	408.4
147.5°	420.4	420.3	420.3	420.3	420.3	420.3	420.4	420.5	420.6	420.6	421.0
150°	429.0	428.8	428.6	428.5	428.3	428.3	428.5	428.6	428.8	429.0	429.1
152.5°	437.3	437.0	436.6	436.3	435.9	435.8	435.9	436.1	436.3	436.4	436.6
155°	448.0	447.5	447.0	446.6	446.1	445.9	446.1	446.2	446.4	446.6	446.8
157.5°	456.2	455.9	455.7	455.3	455.0	455.0	455.0	455.0	455.0	455.0	455.3
160°	461.9	461.4	461.0	460.5	460.0	459.9	459.9	460.0	460.1	460.2	460.5
162.5°	466.5	466.0	465.6	465.1	464.6	464.5	464.5	464.6	464.7	464.8	465.2
165°	472.7	472.2	471.7	471.3	470.8	470.6	470.6	470.7	470.8	470.9	471.3
167.5°	477.3	476.8	476.3	475.8	475.3	475.1	475.2	475.2	475.3	475.4	476.0
170°	479.9	479.3	478.7	478.2	477.6	477.4	477.4	477.5	477.6	477.7	478.3
172.5°	481.6	481.0	480.5	479.9	479.3	479.2	479.3	479.4	479.6	479.7	480.3
175°	483.5	483.0	482.5	482.0	481.6	481.3	481.4	481.5	481.6	481.6	482.3
177.5°	484.3	483.9	483.5	483.2	482.8	482.6	482.7	482.8	482.8	482.9	483.3
180°	483.5	483.5	483.5	483.5	483.5	483.5	483.5	483.5	483.5	483.5	483.5



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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°	89.7	94.0	98.2	101.1	102.3	103.7	105.0	106.4
90°	82.4	87.0	91.6	94.7	96.2	97.7	99.3	100.8
92.5°	79.5	84.0	88.4	91.3	92.7	94.1	95.5	96.9
95°	74.6	79.1	83.5	86.3	87.6	88.9	90.2	91.4
97.5°	76.8	78.3	79.9	81.4	82.6	83.9	85.1	86.3
100°	98.9	90.9	82.9	79.3	80.1	80.8	81.6	82.4
102.5°	132.5	134.0	135.4	134.0	129.6	125.3	121.0	116.7
105°	159.4	163.0	166.7	169.1	170.3	171.5	172.7	173.9
107.5°	183.8	187.4	191.0	193.3	194.2	195.1	196.0	196.9
110°	199.2	202.5	205.7	208.0	209.4	210.7	212.1	213.4



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CATALOG NUMBER: S125DIW-S850D470U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	214.5	217.5	220.6	222.7	223.9	225.1	226.2	227.4
115°	238.0	241.0	243.9	245.7	246.4	247.0	247.6	248.2
117.5°	260.2	262.9	265.6	267.5	268.5	269.6	270.6	271.6
120°	274.7	277.7	280.7	282.5	283.1	283.8	284.6	285.3
122.5°	288.2	291.0	293.7	295.5	296.1	296.8	297.4	298.0
125°	308.0	310.6	313.1	314.8	315.5	316.2	316.9	317.5
127.5°	325.5	328.0	330.6	332.1	332.6	333.0	333.5	334.0
130°	337.5	339.8	342.1	343.6	344.0	344.6	345.1	345.6
132.5°	348.2	350.6	353.2	354.6	355.0	355.4	355.7	356.1
135°	363.3	365.5	367.7	369.1	369.5	369.9	370.3	370.8
137.5°	378.0	380.2	382.5	383.7	384.0	384.3	384.6	384.9
140°	387.0	389.1	391.3	392.5	392.8	393.0	393.2	393.5
142.5°	395.9	397.8	399.5	400.4	400.7	401.0	401.2	401.5
145°	409.5	410.4	411.5	412.1	412.3	412.6	412.8	413.1
147.5°	421.4	421.8	422.2	422.3	422.1	421.8	421.5	421.3
150°	429.3	429.4	429.6	429.4	429.0	428.6	428.1	427.6
152.5°	436.7	436.9	437.0	436.9	436.3	435.8	435.3	434.7
155°	447.0	447.3	447.5	447.3	446.6	446.0	445.4	444.7
157.5°	455.5	455.7	456.0	455.8	455.2	454.6	453.9	453.3
160°	460.8	461.1	461.4	461.3	460.7	460.0	459.4	458.8
162.5°	465.6	466.1	466.5	466.4	465.7	465.0	464.3	463.6
165°	471.9	472.4	472.9	472.8	472.1	471.4	470.8	470.2
167.5°	476.6	477.1	477.7	477.7	476.9	476.2	475.5	474.8
170°	479.0	479.7	480.3	480.2	479.5	478.8	478.1	477.4
172.5°	480.9	481.4	482.0	482.0	481.3	480.5	479.8	479.1
175°	482.9	483.5	484.2	484.2	483.5	482.8	482.0	481.3
177.5°	483.8	484.2	484.7	484.7	484.1	483.6	483.1	482.6
180°	483.5	483.5	483.5	483.5	483.5	483.5	483.5	483.5

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