

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: P333372-840

Luminaire Tested: **S125DIW-S610D470U840-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333372-840
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-S610D470U840-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 610 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: 4317.9 lumens
Efficiency: N/A
Efficacy: 143.0 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

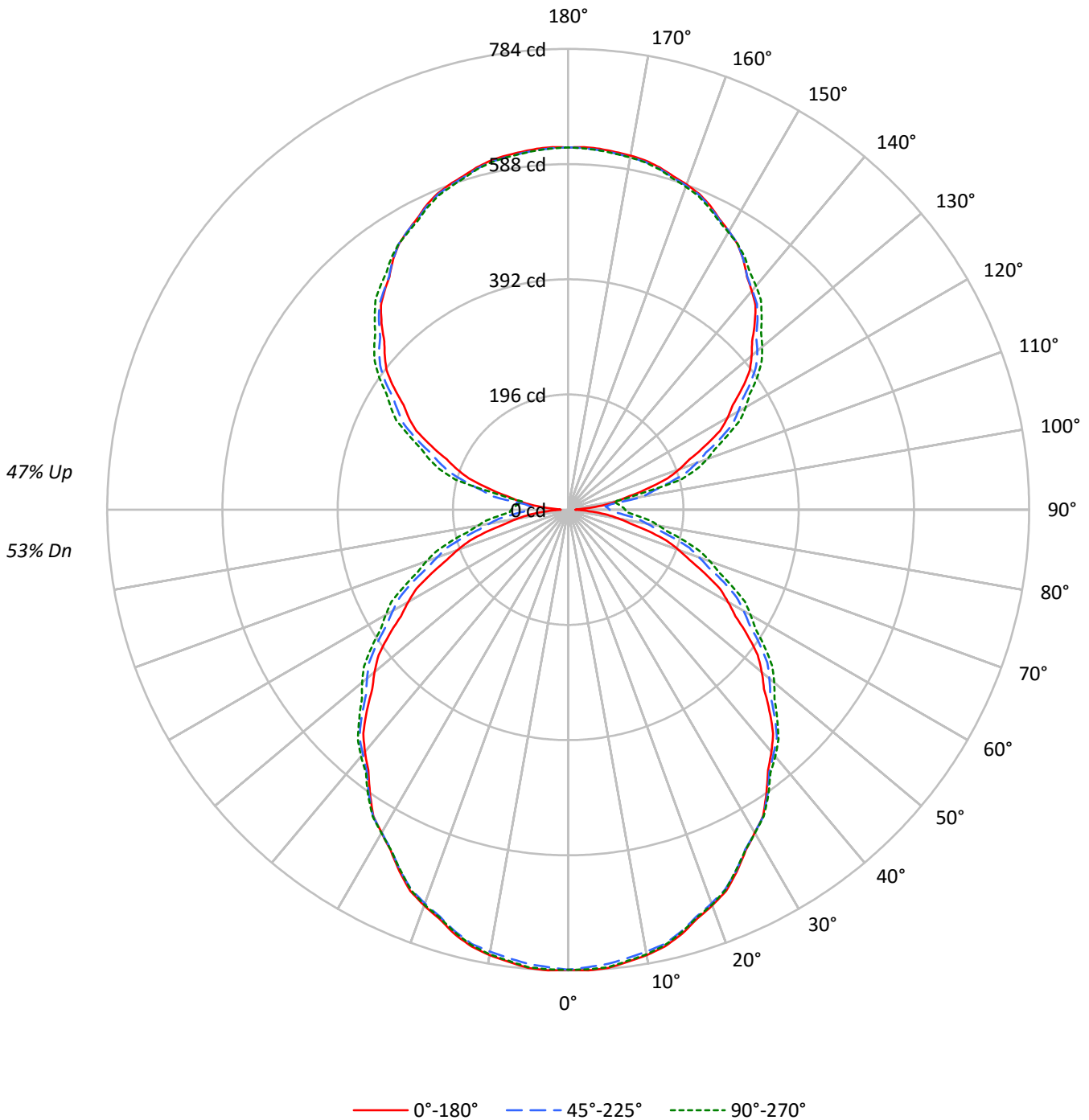
Input Watts (W): 30.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	108	108	108	108	100	100	100	100	85	85	85	71	71	71	59	59	59	53
1	98	93	89	85	90	86	82	79	73	71	68	61	60	58	51	49	48	43
2	89	81	74	69	82	75	69	64	64	59	56	54	50	48	44	42	40	35
3	81	71	63	57	74	66	59	53	56	51	47	47	43	40	39	36	34	29
4	74	62	54	48	68	58	51	45	50	44	39	42	37	34	35	31	29	25
5	68	56	47	41	62	52	44	39	44	38	34	37	33	29	31	28	25	22
6	62	50	41	35	57	46	39	33	40	34	29	34	29	26	28	25	22	19
7	57	45	37	31	53	42	34	29	36	30	26	31	26	23	26	22	19	17
8	53	41	33	27	49	38	31	26	33	27	23	28	23	20	24	20	17	15
9	50	37	29	24	46	35	28	23	30	24	21	26	21	18	22	18	16	13
10	46	34	27	22	43	32	25	21	28	22	18	24	19	16	20	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5054	5054	5054
5°	5064	4961	4977
10°	5029	4873	4865
15°	4969	4767	4723
20°	4888	4635	4581
25°	4792	4495	4406
30°	4676	4340	4247
35°	4567	4199	4102
40°	4457	4049	3955
45°	4331	3922	3825
50°	4213	3783	3710
55°	4069	3652	3575
60°	3913	3503	3437
65°	3749	3347	3282
70°	3561	3133	3123
75°	3269	2928	2928
80°	2884	2679	2713
85°	2526	2512	2645



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.0	1.7
10°-20°	210.1	4.9
20°-30°	312.4	7.2
30°-40°	370.1	8.6
40°-50°	382.6	8.9
50°-60°	352.5	8.2
60°-70°	284.9	6.6
70°-80°	190.8	4.4
80°-90°	100.2	2.3
90°-100°	77.9	1.8
100°-110°	179.0	4.1
110°-120°	277.8	6.4
120°-130°	336.9	7.8
130°-140°	352.4	8.2
140°-150°	325.7	7.5
150°-160°	262.4	6.1
160°-170°	169.7	3.9
170°-180°	58.5	1.4
0°-30°	596.5	13.8
0°-40°	966.6	22.4
0°-60°	1701.7	39.4
0°-90°	2277.7	52.7
90°-120°	534.7	12.4
90°-150°	1549.6	35.9
90°-180°	2040.0	47.2
0°-180°	4317.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	783	783	783	783	783	
5°	783	781	776	781	781	74
15°	747	748	743	747	744	210
25°	679	681	677	679	676	312
35°	588	593	591	593	593	368
45°	484	492	496	502	503	373
55°	372	384	397	405	408	333
65°	256	274	292	303	307	254
75°	141	161	186	200	205	150
85°	42	68	94	111	117	45
90°	13	41	70	89	97	9
95°	36	54	63	82	88	41
105°	141	156	178	193	199	150
115°	257	265	285	296	299	254
125°	362	365	380	390	392	323
135°	449	451	455	464	465	346
145°	519	520	520	524	524	324
155°	571	569	569	570	567	263
165°	603	600	600	603	599	170
175°	616	614	614	617	614	59
180°	616	616	616	616	616	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6
2.5°	784.5	784.2	784.0	783.7	783.4	782.7	781.8	780.8	779.9	778.9	779.9
5°	782.6	782.2	781.9	781.6	781.2	780.5	779.3	778.1	776.9	775.7	777.1
7.5°	775.7	775.6	775.5	775.3	775.2	774.5	773.3	772.0	770.8	769.6	770.7
10°	769.6	769.6	769.6	769.6	769.6	768.9	767.5	766.2	764.8	763.5	764.7
12.5°	761.0	761.1	761.2	761.4	761.5	761.0	759.9	758.9	757.8	756.7	757.6
15°	747.3	747.5	747.7	747.8	748.0	747.5	746.3	745.1	744.0	742.8	743.8
17.5°	729.5	729.8	730.2	730.5	730.9	730.4	729.3	728.1	726.9	725.7	726.5
20°	716.6	717.0	717.3	717.7	718.0	717.6	716.4	715.2	714.0	712.8	713.3
22.5°	702.0	702.6	703.2	703.8	704.4	704.0	702.7	701.4	700.0	698.7	699.3
25°	679.0	679.5	680.0	680.5	681.1	680.9	679.8	678.8	677.7	676.7	677.4
27.5°	653.6	654.3	655.1	655.8	656.6	656.4	655.2	654.1	652.9	651.8	652.2
30°	634.5	635.6	636.6	637.6	638.6	638.6	637.6	636.6	635.6	634.5	634.9
32.5°	617.3	618.2	619.1	620.1	620.9	621.0	620.3	619.5	618.7	617.9	618.3
35°	587.7	589.0	590.2	591.3	592.5	592.9	592.4	591.8	591.3	590.8	591.3
37.5°	558.2	559.3	560.3	561.4	562.5	562.9	562.8	562.6	562.4	562.3	562.9
40°	537.9	539.3	540.6	542.0	543.3	543.9	543.7	543.6	543.4	543.2	543.9
42.5°	515.7	517.6	519.3	521.1	522.9	523.9	524.3	524.7	525.0	525.4	526.2
45°	484.1	486.0	487.9	489.8	491.7	493.0	493.9	494.7	495.5	496.4	497.7
47.5°	451.8	453.5	455.2	457.0	458.8	460.3	461.8	463.2	464.7	466.2	468.0
50°	429.7	431.5	433.4	435.4	437.2	439.1	440.9	442.8	444.6	446.6	448.5
52.5°	406.4	408.6	410.9	413.2	415.5	417.8	420.1	422.3	424.6	426.9	428.9
55°	372.1	374.9	377.6	380.3	383.0	385.8	388.5	391.2	393.9	396.7	398.6
57.5°	337.2	340.4	343.7	347.0	350.2	353.5	356.6	359.7	362.8	366.0	368.1
60°	313.9	317.2	320.6	324.1	327.5	330.8	334.3	337.7	341.1	344.5	347.1
62.5°	291.1	294.5	297.9	301.3	304.8	308.3	311.9	315.7	319.3	323.1	325.9
65°	256.3	260.2	264.1	268.0	272.0	276.0	280.0	284.2	288.2	292.4	294.9
67.5°	223.5	227.2	231.0	234.8	238.5	242.6	246.7	250.9	255.0	259.2	262.3
70°	199.4	203.4	207.3	211.3	215.2	219.3	223.8	228.2	232.7	237.1	240.3
72.5°	176.1	180.3	184.3	188.3	192.4	196.8	201.7	206.5	211.4	216.2	219.7
75°	141.2	145.6	150.1	154.5	159.0	163.9	169.4	174.8	180.3	185.7	189.0
77.5°	107.6	112.7	117.9	122.9	128.1	133.2	138.5	143.7	149.0	154.2	157.9
80°	86.7	91.8	96.9	102.1	107.1	112.6	118.5	124.2	130.0	135.8	139.6
82.5°	67.7	73.0	78.5	83.8	89.3	94.9	100.8	106.7	112.7	118.7	122.2
85°	42.2	47.9	53.4	59.1	64.7	70.5	76.4	82.4	88.4	94.4	98.2
87.5°	24.0	29.7	35.2	40.9	46.6	52.3	58.3	64.1	70.1	76.0	80.1
90°	12.7	19.0	25.2	31.5	37.8	44.2	50.7	57.3	63.7	70.2	74.6
92.5°	18.1	22.5	27.1	31.5	36.0	41.5	48.1	54.6	61.2	67.8	72.1
95°	36.1	40.2	44.2	48.4	52.5	55.5	57.5	59.5	61.4	63.3	67.6
97.5°	63.4	68.0	72.5	77.1	81.6	82.8	80.8	78.8	76.6	74.6	75.3
100°	84.7	88.7	92.5	96.3	100.3	105.1	111.0	116.8	122.7	128.6	117.0
102.5°	106.4	110.1	113.8	117.4	121.2	125.8	131.4	136.9	142.5	148.0	148.7
105°	141.2	144.3	147.4	150.7	153.8	157.8	163.0	168.1	173.2	178.3	181.8
107.5°	177.4	179.8	182.1	184.4	186.6	190.4	195.5	200.7	205.7	210.9	214.2
110°	200.9	203.0	205.0	207.0	209.0	212.6	217.6	222.6	227.5	232.5	235.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	223.6	225.4	227.3	229.2	231.1	234.4	239.1	243.9	248.7	253.5	256.2
115°	256.8	258.5	260.1	261.9	263.6	266.7	271.2	275.8	280.3	284.9	287.5
117.5°	291.2	292.0	292.8	293.5	294.3	296.9	301.5	306.1	310.6	315.3	317.6
120°	313.2	313.6	314.0	314.4	314.8	317.1	321.3	325.6	329.7	334.0	336.7
122.5°	331.8	332.5	333.2	333.8	334.4	336.7	340.6	344.5	348.4	352.3	355.0
125°	361.7	362.2	362.7	363.3	363.9	365.9	369.2	372.6	376.1	379.5	381.8
127.5°	389.5	389.9	390.2	390.5	390.9	392.4	395.2	397.9	400.6	403.3	405.7
130°	407.1	407.4	407.8	408.1	408.4	409.8	412.3	414.9	417.3	419.8	421.9
132.5°	424.0	424.5	425.2	425.7	426.3	427.3	428.9	430.5	432.1	433.7	436.2
135°	448.8	449.2	449.7	450.1	450.6	451.3	452.2	453.2	454.2	455.2	457.3
137.5°	471.6	472.0	472.3	472.7	473.1	473.5	473.9	474.3	474.7	475.1	477.2
140°	485.9	486.1	486.4	486.6	486.8	486.9	487.0	487.1	487.1	487.2	489.3
142.5°	499.5	499.5	499.5	499.4	499.4	499.5	499.7	499.9	500.0	500.2	501.8
145°	519.3	519.4	519.4	519.4	519.5	519.5	519.5	519.5	519.5	519.5	520.4
147.5°	535.9	535.8	535.8	535.7	535.7	535.7	535.9	536.0	536.1	536.2	536.6
150°	546.8	546.6	546.4	546.2	546.0	546.0	546.2	546.4	546.6	546.8	547.0
152.5°	557.4	557.0	556.5	556.1	555.6	555.5	555.7	555.9	556.1	556.3	556.5
155°	571.1	570.5	569.9	569.3	568.7	568.5	568.7	568.9	569.1	569.3	569.6
157.5°	581.6	581.2	580.9	580.5	580.1	580.0	580.0	580.0	580.0	580.1	580.4
160°	588.9	588.2	587.6	587.0	586.4	586.2	586.3	586.4	586.5	586.6	587.0
162.5°	594.7	594.1	593.5	592.9	592.3	592.1	592.2	592.3	592.4	592.5	593.0
165°	602.6	602.0	601.4	600.8	600.2	599.9	600.0	600.1	600.2	600.3	600.9
167.5°	608.4	607.8	607.2	606.5	605.9	605.6	605.7	605.8	605.9	606.0	606.8
170°	611.8	611.1	610.3	609.6	608.8	608.5	608.6	608.7	608.8	608.9	609.8
172.5°	613.9	613.2	612.5	611.8	611.1	610.9	611.0	611.2	611.4	611.6	612.3
175°	616.3	615.7	615.1	614.5	613.9	613.6	613.7	613.8	613.9	614.0	614.8
177.5°	617.4	616.9	616.4	615.9	615.4	615.2	615.3	615.4	615.5	615.6	616.1
180°	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6
2.5°	780.8	781.8	782.7	783.2	783.0	782.9	782.7	782.6
5°	778.4	779.8	781.1	781.7	781.6	781.4	781.2	781.1
7.5°	771.9	773.2	774.4	774.9	774.7	774.6	774.4	774.2
10°	765.9	767.0	768.2	768.7	768.6	768.4	768.2	768.0
12.5°	758.5	759.4	760.4	760.6	760.1	759.7	759.3	758.8
15°	744.8	745.8	746.8	747.0	746.3	745.6	745.0	744.3
17.5°	727.3	728.0	728.8	729.0	728.6	728.2	727.8	727.4
20°	713.9	714.4	714.9	715.1	715.1	715.1	715.1	715.1
22.5°	699.9	700.6	701.3	701.4	700.9	700.5	700.1	699.7
25°	678.1	678.8	679.4	679.4	678.5	677.7	676.8	676.0
27.5°	652.7	653.2	653.7	653.7	653.4	653.1	652.8	652.5
30°	635.2	635.6	635.9	636.0	635.8	635.6	635.5	635.3
32.5°	618.6	618.9	619.4	619.5	619.2	619.0	618.9	618.7
35°	591.8	592.4	592.9	593.1	593.1	593.1	593.1	593.1
37.5°	563.6	564.3	565.0	565.3	565.2	565.1	565.1	565.0
40°	544.6	545.3	545.9	546.4	546.8	547.1	547.5	547.9
42.5°	527.0	527.9	528.7	529.2	529.3	529.3	529.4	529.5
45°	498.8	500.0	501.2	501.9	502.1	502.2	502.4	502.6
47.5°	469.7	471.4	473.1	474.2	474.6	474.9	475.3	475.7
50°	450.3	452.2	454.0	455.2	455.8	456.3	456.8	457.3
52.5°	430.9	432.9	434.9	436.2	436.6	436.9	437.3	437.7
55°	400.4	402.3	404.1	405.5	406.2	406.9	407.5	408.2
57.5°	370.3	372.4	374.6	375.9	376.5	377.0	377.5	378.0
60°	349.6	352.1	354.8	356.3	356.8	357.3	357.8	358.3
62.5°	328.7	331.5	334.4	336.1	336.7	337.4	338.0	338.7
65°	297.4	300.0	302.6	304.2	304.9	305.6	306.2	306.9
67.5°	265.4	268.5	271.6	273.6	274.5	275.4	276.3	277.1
70°	243.6	246.8	250.0	252.2	253.2	254.2	255.3	256.3
72.5°	223.3	226.7	230.2	232.4	233.2	233.9	234.7	235.4
75°	192.5	195.9	199.3	201.5	202.3	203.2	204.0	204.9
77.5°	161.7	165.5	169.3	171.5	172.1	172.8	173.5	174.2
80°	143.3	147.0	150.8	153.0	153.7	154.4	155.1	155.7
82.5°	125.8	129.5	133.1	135.5	136.7	137.9	139.2	140.4
85°	101.9	105.6	109.4	111.9	113.3	114.6	116.0	117.3
87.5°	84.1	88.2	92.1	94.7	96.0	97.3	98.6	99.8
90°	79.1	83.5	88.0	90.9	92.4	93.9	95.4	96.9
92.5°	76.3	80.7	84.9	87.8	89.1	90.4	91.8	93.1
95°	71.8	76.1	80.4	83.1	84.3	85.4	86.6	87.9
97.5°	76.0	76.9	77.6	78.5	79.6	80.8	81.9	83.1
100°	105.5	93.9	82.4	77.0	77.6	78.2	78.8	79.4
102.5°	149.3	149.9	150.4	147.7	141.9	136.0	130.1	124.2
105°	185.2	188.5	192.0	194.2	195.3	196.4	197.5	198.6
107.5°	217.6	221.1	224.4	226.5	227.2	228.0	228.7	229.5
110°	238.4	241.4	244.3	246.4	247.6	248.9	250.2	251.6



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CATALOG NUMBER: S125DIW-S610D470U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	258.9	261.6	264.3	266.2	267.2	268.3	269.3	270.4
115°	290.1	292.9	295.5	297.0	297.4	297.9	298.3	298.7
117.5°	320.0	322.3	324.8	326.4	327.3	328.2	329.0	329.9
120°	339.4	342.0	344.8	346.4	346.9	347.4	347.9	348.4
122.5°	357.5	360.0	362.6	364.1	364.6	365.0	365.4	365.9
125°	384.2	386.5	388.8	390.2	390.7	391.3	391.8	392.4
127.5°	408.0	410.3	412.5	413.8	414.0	414.3	414.5	414.8
130°	423.9	426.1	428.1	429.3	429.7	430.0	430.4	430.7
132.5°	438.5	440.8	443.1	444.3	444.5	444.7	444.9	445.1
135°	459.3	461.3	463.3	464.4	464.6	464.9	465.1	465.3
137.5°	479.3	481.3	483.3	484.4	484.6	484.7	484.9	485.0
140°	491.3	493.4	495.4	496.6	496.7	496.8	496.8	496.9
142.5°	503.5	505.1	506.8	507.7	507.7	507.8	507.9	508.0
145°	521.4	522.3	523.3	523.8	523.8	523.9	524.0	524.0
147.5°	537.0	537.5	537.9	537.9	537.3	536.9	536.5	536.1
150°	547.2	547.4	547.6	547.4	546.8	546.1	545.5	544.9
152.5°	556.7	556.9	557.1	556.9	556.2	555.5	554.8	554.1
155°	569.9	570.2	570.5	570.2	569.4	568.6	567.7	566.9
157.5°	580.7	581.0	581.3	581.1	580.3	579.5	578.7	577.8
160°	587.4	587.8	588.2	588.0	587.2	586.4	585.6	584.8
162.5°	593.6	594.2	594.7	594.6	593.7	592.8	591.9	591.0
165°	601.6	602.2	602.8	602.7	601.9	601.0	600.2	599.4
167.5°	607.5	608.2	608.9	608.9	607.9	607.0	606.1	605.2
170°	610.6	611.5	612.3	612.2	611.3	610.4	609.5	608.5
172.5°	613.0	613.7	614.5	614.4	613.5	612.6	611.7	610.8
175°	615.6	616.4	617.2	617.2	616.3	615.4	614.5	613.6
177.5°	616.7	617.2	617.8	617.8	617.1	616.5	615.8	615.2
180°	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3

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