

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: P333172-840

Luminaire Tested: **S125DIP-S610D590U840-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333172-840
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: S125DIP-S610D590U840-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 610 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4812.4 lumens
Efficiency: N/A
Efficacy: 146.7 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

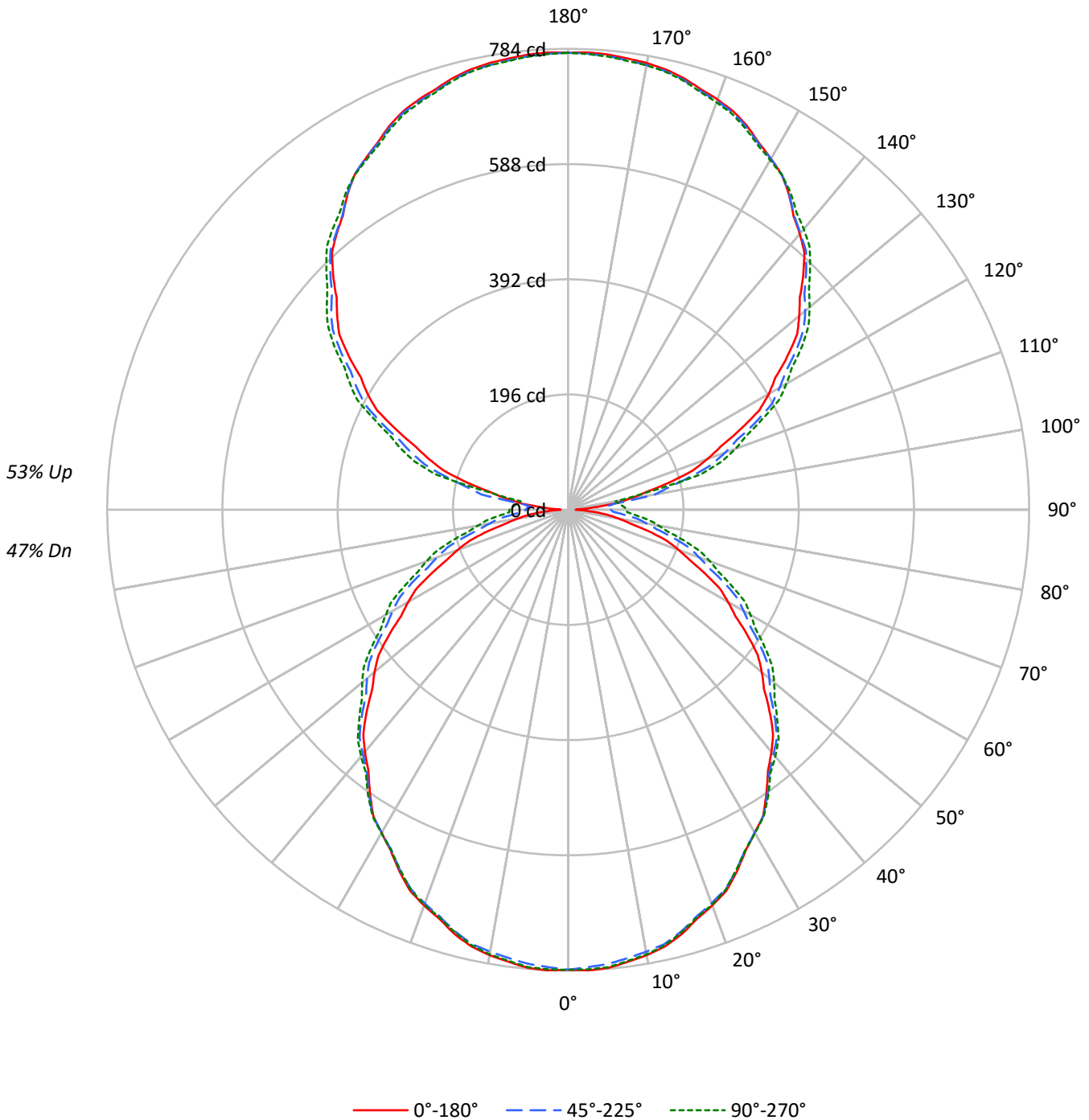
Input Watts (W): 32.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	107	107	107	107	98	98	98	98	82	82	82	67	67	67	54	54	54	47
1	96	92	88	84	88	84	81	78	71	68	66	58	56	54	46	45	44	38
2	88	80	73	68	80	73	68	63	62	57	54	51	48	45	40	38	36	32
3	80	70	62	56	73	64	58	52	54	49	45	44	41	38	36	33	31	26
4	73	62	54	47	67	57	50	44	48	42	38	39	35	32	32	29	26	23
5	67	55	47	40	61	51	43	38	43	37	33	35	31	28	28	25	23	19
6	61	49	41	35	56	45	38	33	38	33	28	32	27	24	26	22	20	17
7	57	44	36	31	52	41	34	29	35	29	25	29	25	21	23	20	18	15
8	53	40	32	27	48	37	30	25	32	26	22	26	22	19	22	18	16	13
9	49	37	29	24	45	34	27	23	29	24	20	24	20	17	20	17	14	12
10	46	34	26	21	42	31	25	20	27	21	18	22	18	15	18	15	13	11

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	1.5
10°-20°	210.1	4.4
20°-30°	312.4	6.5
30°-40°	370.1	7.7
40°-50°	382.6	8.0
50°-60°	352.5	7.3
60°-70°	284.9	5.9
70°-80°	190.8	4.0
80°-90°	100.6	2.1
90°-100°	83.8	1.7
100°-110°	215.0	4.5
110°-120°	343.2	7.1
120°-130°	420.8	8.7
130°-140°	442.6	9.2
140°-150°	410.4	8.5
150°-160°	330.9	6.9
160°-170°	214.0	4.4
170°-180°	73.8	1.5
0°-30°	596.5	12.4
0°-40°	966.6	20.1
0°-60°	1701.7	35.4
0°-90°	2278.0	47.3
90°-120°	641.9	13.3
90°-150°	1915.7	39.8
90°-180°	2534.0	52.7
0°-180°	4812.4	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	42	72	92	100	10
95°	43	60	65	84	90	50
105°	176	191	214	229	234	187
115°	323	332	351	362	364	320
125°	455	459	474	483	486	406
135°	566	568	572	581	582	436
145°	655	655	655	659	659	409
155°	720	717	718	719	715	332
165°	760	757	757	760	756	215
175°	777	774	774	778	774	74
180°	777	777	777	777	777	



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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	35.3	41.0	46.7	52.5	58.5	64.4	70.5	76.4	80.5
90°	12.8	19.3	25.9	32.3	38.8	45.3	52.0	58.8	65.4	72.1	76.6
92.5°	19.9	24.2	28.6	32.9	37.3	42.8	49.5	56.2	62.9	69.7	74.1
95°	42.8	46.9	50.9	54.9	59.0	61.5	62.4	63.3	64.3	65.2	69.6
97.5°	77.7	82.3	86.9	91.7	96.3	96.6	92.6	88.6	84.5	80.5	80.5
100°	104.6	108.7	112.6	116.5	120.5	125.5	131.5	137.4	143.4	149.4	133.9
102.5°	132.2	135.9	139.8	143.5	147.3	152.1	157.6	163.3	169.0	174.6	174.4
105°	176.3	179.6	182.8	186.0	189.2	193.4	198.5	203.7	208.7	213.9	217.3
107.5°	222.2	224.5	226.8	229.1	231.5	235.2	240.3	245.5	250.6	255.8	259.2
110°	252.0	254.0	256.1	258.1	260.1	263.7	268.7	273.8	278.8	283.8	286.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	280.5	282.5	284.5	286.4	288.3	291.6	296.5	301.2	306.1	310.8	313.5
115°	322.7	324.5	326.3	328.1	330.0	333.2	337.7	342.3	346.9	351.4	354.0
117.5°	366.3	367.0	367.8	368.5	369.3	372.0	376.7	381.3	386.1	390.7	392.9
120°	393.9	394.3	394.7	395.1	395.5	397.8	402.1	406.4	410.7	415.0	417.7
122.5°	417.7	418.5	419.2	419.9	420.6	422.9	427.0	430.9	434.8	438.8	441.3
125°	455.3	456.1	456.8	457.6	458.3	460.3	463.7	467.2	470.6	473.9	476.2
127.5°	490.7	491.1	491.6	492.1	492.5	494.1	496.9	499.6	502.3	505.0	507.3
130°	512.8	513.2	513.7	514.2	514.6	516.1	518.7	521.2	523.7	526.2	528.3
132.5°	534.3	535.0	535.7	536.4	537.1	538.3	539.9	541.4	542.9	544.5	546.8
135°	565.6	566.2	566.8	567.4	567.9	568.8	569.7	570.7	571.6	572.5	574.5
137.5°	594.4	594.9	595.4	595.9	596.5	596.9	597.2	597.6	597.9	598.3	600.4
140°	612.7	612.9	613.2	613.4	613.7	613.8	613.9	613.9	614.0	614.0	616.1
142.5°	629.8	629.8	629.8	629.8	629.8	629.9	630.2	630.4	630.6	630.8	632.4
145°	654.7	654.8	654.9	655.0	655.1	655.1	655.1	655.1	655.1	655.1	656.1
147.5°	675.8	675.8	675.7	675.7	675.6	675.7	675.8	676.0	676.1	676.3	676.7
150°	689.6	689.4	689.1	688.9	688.6	688.6	688.9	689.1	689.4	689.6	689.9
152.5°	703.1	702.5	702.0	701.4	700.7	700.6	700.8	701.1	701.4	701.7	702.0
155°	720.2	719.4	718.7	717.9	717.1	716.9	717.1	717.4	717.6	717.9	718.3
157.5°	733.5	733.0	732.6	732.1	731.6	731.4	731.4	731.4	731.4	731.5	732.0
160°	742.7	741.9	741.1	740.3	739.6	739.3	739.4	739.5	739.6	739.8	740.3
162.5°	750.0	749.3	748.5	747.7	747.0	746.7	746.8	746.9	747.0	747.2	747.9
165°	759.9	759.2	758.4	757.7	756.9	756.6	756.7	756.8	757.0	757.1	757.8
167.5°	767.3	766.6	765.8	765.0	764.2	763.9	764.0	764.1	764.2	764.4	765.3
170°	771.5	770.6	769.7	768.8	767.9	767.5	767.6	767.8	767.9	768.0	769.0
172.5°	774.3	773.4	772.4	771.5	770.6	770.3	770.5	770.8	771.0	771.2	772.1
175°	777.3	776.5	775.7	775.0	774.2	773.9	774.0	774.2	774.3	774.4	775.4
177.5°	778.6	778.0	777.4	776.8	776.2	775.9	776.0	776.1	776.2	776.3	777.1
180°	777.3	777.3	777.3	777.3	777.3	777.3	777.3	777.3	777.3	777.3	777.3



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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°	84.5	88.6	92.6	95.3	96.5	97.9	99.1	100.4
90°	81.3	85.8	90.4	93.4	95.0	96.6	98.2	99.8
92.5°	78.6	82.9	87.4	90.3	91.7	93.0	94.4	95.7
95°	74.0	78.4	82.8	85.6	86.7	88.0	89.2	90.4
97.5°	80.5	80.4	80.4	81.0	82.1	83.3	84.4	85.6
100°	118.4	102.9	87.4	79.9	80.4	80.9	81.4	81.9
102.5°	174.2	174.1	173.9	170.0	162.3	154.6	146.9	139.3
105°	220.8	224.1	227.5	229.7	230.9	231.9	233.0	234.1
107.5°	262.7	266.1	269.4	271.5	272.2	272.9	273.5	274.2
110°	289.5	292.4	295.3	297.3	298.6	299.9	301.2	302.7



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CATALOG NUMBER: S125DIP-S610D590U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	316.1	318.7	321.3	323.2	324.2	325.2	326.2	327.2
115°	356.6	359.1	361.6	363.0	363.3	363.6	363.9	364.1
117.5°	395.2	397.4	399.7	401.2	402.0	402.8	403.6	404.5
120°	420.3	422.9	425.6	427.1	427.5	427.9	428.3	428.6
122.5°	443.8	446.4	448.9	450.2	450.5	450.8	451.1	451.4
125°	478.4	480.6	482.8	484.1	484.6	485.1	485.5	486.0
127.5°	509.5	511.7	514.0	515.1	515.1	515.2	515.2	515.3
130°	530.2	532.2	534.2	535.3	535.5	535.7	535.9	536.1
132.5°	549.2	551.4	553.7	554.9	555.0	555.1	555.1	555.2
135°	576.4	578.3	580.4	581.4	581.5	581.6	581.6	581.7
137.5°	602.5	604.5	606.6	607.6	607.6	607.6	607.6	607.6
140°	618.2	620.4	622.5	623.6	623.5	623.4	623.3	623.2
142.5°	634.1	635.7	637.3	638.1	638.0	637.9	637.9	637.8
145°	657.0	658.0	659.0	659.4	659.3	659.3	659.2	659.1
147.5°	677.1	677.6	678.0	677.9	677.3	676.7	676.1	675.5
150°	690.1	690.4	690.6	690.4	689.5	688.7	687.8	687.0
152.5°	702.2	702.5	702.7	702.4	701.5	700.5	699.7	698.8
155°	718.7	719.0	719.4	719.1	718.1	717.1	716.1	715.0
157.5°	732.4	732.8	733.2	732.9	731.8	730.7	729.7	728.7
160°	740.8	741.3	741.8	741.5	740.5	739.5	738.5	737.5
162.5°	748.6	749.3	750.0	749.8	748.7	747.6	746.5	745.3
165°	758.6	759.4	760.1	760.0	759.0	758.0	757.0	755.9
167.5°	766.2	767.1	768.0	767.9	766.8	765.6	764.5	763.3
170°	770.1	771.1	772.1	772.0	770.9	769.7	768.6	767.5
172.5°	773.1	774.1	775.0	774.9	773.7	772.5	771.3	770.2
175°	776.4	777.4	778.5	778.4	777.3	776.1	775.0	773.8
177.5°	777.8	778.5	779.2	779.1	778.3	777.5	776.7	775.9
180°	777.3	777.3	777.3	777.3	777.3	777.3	777.3	777.3

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