

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: P333175-840

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333175-840
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-F
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4912.1 lumens
Efficiency: N/A
Efficacy: 149.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

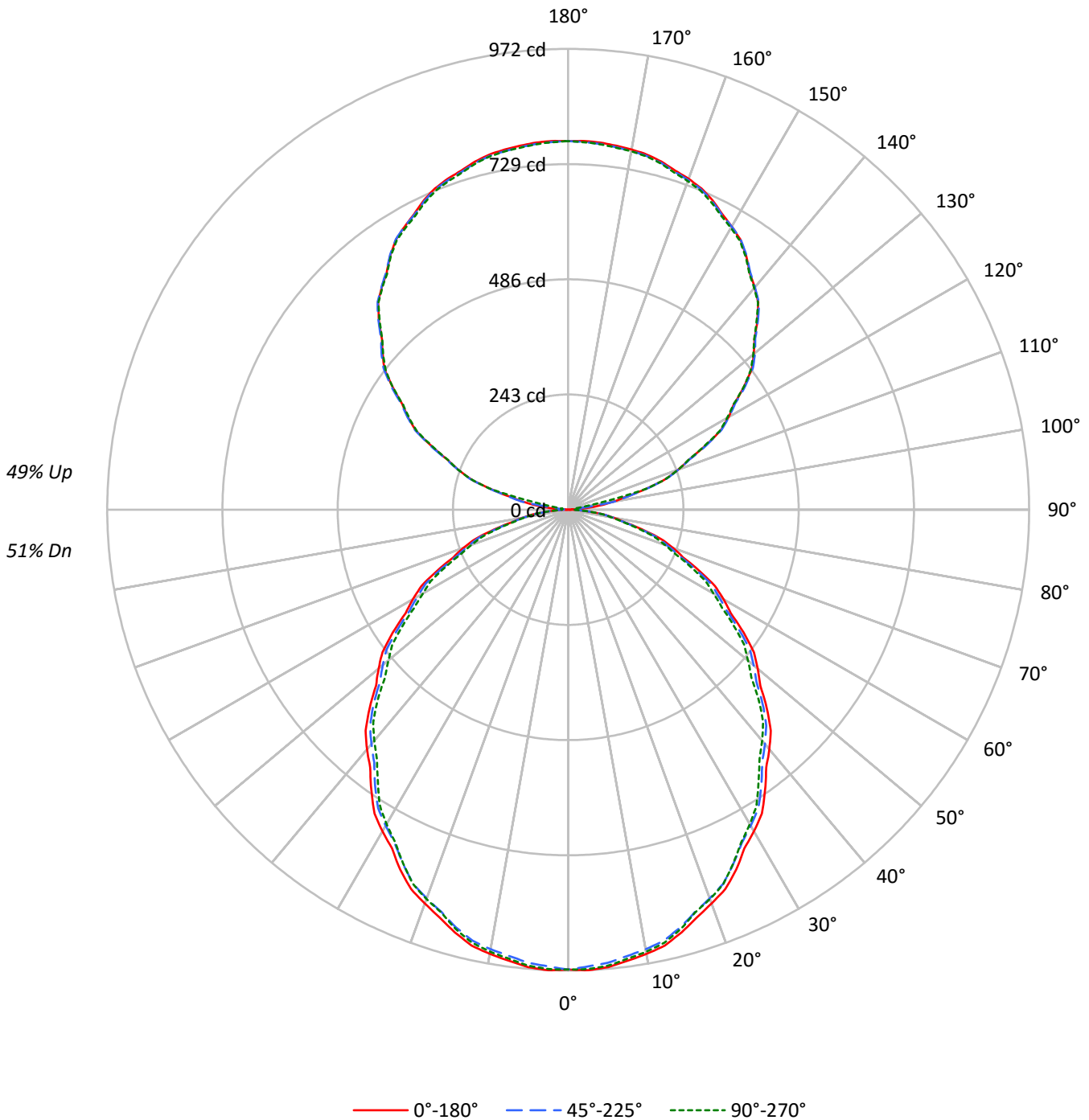
Input Watts (W): 32.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	99	99	99	84	84	84	70	70	70	57	57	57	51
1	98	94	90	86	90	87	83	80	74	71	69	62	60	58	51	49	48	43
2	89	82	76	70	82	76	70	66	65	60	57	54	51	49	45	42	41	36
3	81	72	64	59	75	67	60	55	57	52	48	48	44	41	39	37	35	31
4	74	64	56	50	68	59	52	47	51	45	41	43	39	35	35	32	30	26
5	68	57	48	42	63	53	45	40	45	40	35	38	34	31	32	29	26	23
6	63	51	43	37	58	47	40	35	41	35	31	35	30	27	29	25	23	20
7	58	46	38	32	54	43	36	30	37	31	27	31	27	24	26	23	20	18
8	54	42	34	29	50	39	32	27	34	28	24	29	24	21	24	21	18	16
9	50	38	30	25	46	36	29	24	31	25	22	26	22	19	22	19	16	14
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	21	17	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6264	6264	6264
5°	6278	6218	6257
10°	6239	6174	6209
15°	6171	6100	6125
20°	6075	5996	6006
25°	5971	5872	5867
30°	5842	5739	5711
35°	5705	5595	5517
40°	5563	5440	5363
45°	5411	5298	5193
50°	5243	5127	4972
55°	5080	4933	4796
60°	4886	4738	4570
65°	4655	4504	4351
70°	4434	4232	4086
75°	4040	3905	3773
80°	3593	3537	3451
85°	3127	3179	3016



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.4	1.9
10°-20°	258.3	5.3
20°-30°	381.4	7.8
30°-40°	445.0	9.1
40°-50°	447.0	9.1
50°-60°	392.4	8.0
60°-70°	292.4	6.0
70°-80°	167.2	3.4
80°-90°	50.2	1.0
90°-100°	28.3	0.6
100°-110°	174.1	3.5
110°-120°	315.7	6.4
120°-130°	405.2	8.2
130°-140°	435.8	8.9
140°-150°	409.1	8.3
150°-160°	330.9	6.7
160°-170°	214.0	4.4
170°-180°	73.8	1.5
0°-30°	731.2	14.9
0°-40°	1176.2	23.9
0°-60°	2015.6	41.0
0°-90°	2525.3	51.4
90°-120°	518.0	10.5
90°-150°	1768.1	36.0
90°-180°	2387.0	48.6
0°-180°	4912.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	970	970	970	970	970	
5°	968	966	959	966	965	92
15°	923	920	912	916	916	260
25°	838	834	824	825	823	385
35°	724	720	710	706	700	452
45°	592	589	580	571	569	456
55°	451	448	438	431	426	403
65°	305	303	295	288	285	302
75°	162	160	156	154	151	173
85°	42	43	43	42	41	47
90°	1	5	9	12	14	4
95°	33	30	9	12	12	42
105°	169	172	172	172	171	180
115°	318	321	322	319	316	315
125°	452	456	456	454	452	404
135°	564	567	566	565	562	435
145°	654	655	655	655	652	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°	969.9	969.9	969.9	969.9	969.9	969.9	969.9	969.9	969.9	969.9	969.9
2.5°	972.3	971.9	971.5	971.1	970.7	969.8	968.5	967.0	965.7	964.3	965.7
5°	968.4	968.0	967.7	967.2	966.9	965.9	964.2	962.5	960.8	959.1	960.7
7.5°	959.4	959.1	958.8	958.4	958.1	956.9	955.0	953.2	951.3	949.5	950.9
10°	951.4	951.1	950.8	950.4	950.1	949.0	947.1	945.2	943.3	941.5	942.8
12.5°	941.6	941.0	940.4	939.8	939.2	938.0	936.2	934.5	932.7	931.0	932.1
15°	923.0	922.5	922.0	921.5	921.0	919.8	918.0	916.0	914.1	912.3	913.1
17.5°	901.7	901.0	900.2	899.5	898.7	897.4	895.4	893.4	891.5	889.6	890.6
20°	883.9	883.5	883.2	882.9	882.5	881.3	879.1	876.9	874.6	872.4	873.6
22.5°	866.1	865.5	864.8	864.2	863.6	862.3	860.2	858.2	856.1	853.9	854.7
25°	837.9	837.0	836.2	835.4	834.5	832.9	830.7	828.5	826.3	824.0	824.5
27.5°	804.9	804.4	803.9	803.3	802.8	801.4	799.1	796.9	794.6	792.3	792.3
30°	783.4	782.8	782.3	781.8	781.3	779.8	777.3	774.7	772.1	769.6	769.2
32.5°	760.0	759.3	758.5	757.7	756.9	755.4	753.2	750.8	748.5	746.3	745.7
35°	723.6	722.9	722.2	721.5	720.8	719.3	716.9	714.5	712.2	709.7	708.9
37.5°	685.6	684.8	684.0	683.1	682.3	680.6	678.4	676.2	673.9	671.7	670.4
40°	659.8	659.0	658.1	657.3	656.4	654.8	652.5	650.1	647.6	645.3	643.8
42.5°	632.3	631.6	630.8	630.1	629.3	627.8	625.4	623.1	620.7	618.2	616.9
45°	592.4	591.7	591.0	590.3	589.7	588.2	586.2	584.2	582.1	580.1	578.0
47.5°	549.4	549.4	549.5	549.5	549.5	548.3	545.8	543.4	541.0	538.5	536.4
50°	521.8	521.2	520.7	520.2	519.7	518.5	516.3	514.3	512.3	510.3	508.1
52.5°	493.5	493.1	492.8	492.4	492.0	490.7	488.6	486.4	484.2	482.0	480.1
55°	451.2	450.6	450.1	449.6	449.1	447.7	445.2	442.9	440.5	438.1	436.6
57.5°	406.5	406.3	406.0	405.7	405.5	404.2	402.2	400.2	398.2	396.3	394.3
60°	378.3	377.6	376.9	376.2	375.6	374.3	372.4	370.5	368.6	366.8	365.1
62.5°	348.8	348.3	347.7	347.2	346.6	345.6	344.0	342.3	340.7	339.1	337.3
65°	304.6	304.3	304.0	303.6	303.3	302.2	300.2	298.4	296.5	294.7	293.1
67.5°	261.8	261.1	260.3	259.6	258.9	257.9	256.5	255.1	253.7	252.3	251.0
70°	234.8	234.0	233.1	232.3	231.4	230.1	228.6	227.1	225.6	224.1	223.0
72.5°	205.3	204.7	204.2	203.6	203.0	202.2	201.3	200.3	199.2	198.2	197.1
75°	161.9	161.6	161.2	160.9	160.6	160.0	159.1	158.2	157.3	156.5	156.0
77.5°	121.9	121.7	121.6	121.4	121.3	121.0	120.5	120.1	119.6	119.1	118.8
80°	96.6	96.6	96.6	96.6	96.6	96.5	96.1	95.8	95.5	95.1	94.9
82.5°	74.6	74.3	74.0	73.7	73.5	73.3	73.2	73.2	73.1	73.0	72.7
85°	42.2	42.4	42.5	42.7	42.9	42.9	42.9	42.9	42.9	42.9	42.8
87.5°	16.7	16.9	17.1	17.3	17.5	17.7	17.7	17.7	17.8	17.8	18.0
90°	0.6	1.6	2.6	3.6	4.6	5.7	6.6	7.5	8.3	9.2	9.9
92.5°	8.9	8.2	7.5	6.8	6.0	6.1	6.9	7.7	8.4	9.2	9.9
95°	32.8	32.4	32.1	31.7	31.3	28.7	23.8	19.0	14.0	9.2	9.9
97.5°	68.6	69.3	70.0	70.6	71.3	66.9	57.3	47.6	38.0	28.4	24.7
100°	96.2	96.6	96.9	97.4	97.8	98.2	98.8	99.3	99.8	100.3	81.2
102.5°	124.3	124.8	125.3	125.8	126.2	126.6	126.9	127.3	127.6	127.9	124.3
105°	169.4	169.9	170.5	171.0	171.5	171.7	171.7	171.7	171.7	171.7	171.7
107.5°	216.2	216.2	216.2	216.2	216.2	216.3	216.5	216.8	217.1	217.3	217.3
110°	246.6	246.6	246.6	246.6	246.6	246.7	247.0	247.2	247.5	247.7	247.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	275.2	275.5	275.8	276.1	276.4	276.6	276.8	276.9	277.1	277.2	276.8
115°	318.0	318.7	319.3	319.9	320.6	321.0	321.1	321.2	321.3	321.5	321.0
117.5°	362.4	362.3	362.3	362.3	362.3	362.5	363.0	363.6	364.0	364.5	363.9
120°	390.1	389.9	389.8	389.7	389.5	389.7	390.1	390.4	390.8	391.2	390.9
122.5°	414.4	415.0	415.5	416.0	416.5	416.8	417.0	417.2	417.3	417.5	417.3
125°	452.3	453.2	454.0	454.9	455.9	456.4	456.4	456.4	456.4	456.4	455.9
127.5°	488.4	489.0	489.7	490.3	490.9	491.2	491.1	491.1	491.0	490.9	490.6
130°	510.5	511.1	511.8	512.4	513.0	513.4	513.5	513.7	513.8	513.9	513.5
132.5°	532.6	533.3	534.1	534.8	535.5	535.8	535.5	535.2	534.9	534.7	534.6
135°	564.1	564.8	565.6	566.3	567.1	567.4	567.1	566.8	566.6	566.3	566.1
137.5°	593.0	593.7	594.3	595.0	595.6	595.9	595.6	595.4	595.2	594.9	595.0
140°	611.9	612.2	612.4	612.7	612.9	613.0	612.9	612.7	612.6	612.5	612.7
142.5°	628.9	629.1	629.2	629.4	629.5	629.8	630.0	630.1	630.3	630.5	630.5
145°	654.0	654.2	654.5	654.7	655.0	655.1	655.1	655.1	655.1	655.1	655.2
147.5°	675.8	675.8	675.7	675.7	675.6	675.7	675.8	676.0	676.1	676.3	676.5
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°	969.9	969.9	969.9	969.9	969.9	969.9	969.9	969.9
2.5°	967.0	968.5	969.8	970.4	970.3	970.1	970.0	969.9
5°	962.2	963.7	965.2	965.9	965.7	965.6	965.4	965.2
7.5°	952.4	953.9	955.4	956.1	955.9	955.7	955.6	955.4
10°	944.2	945.5	947.0	947.6	947.4	947.2	947.0	946.8
12.5°	933.2	934.3	935.3	935.9	935.8	935.8	935.8	935.7
15°	914.0	914.8	915.7	916.1	916.1	916.1	916.1	916.1
17.5°	891.7	892.7	893.8	893.9	893.0	892.2	891.4	890.5
20°	874.7	876.0	877.2	877.4	876.5	875.7	874.7	873.9
22.5°	855.6	856.4	857.2	857.3	856.7	856.1	855.5	855.0
25°	824.8	825.1	825.5	825.4	824.9	824.4	823.8	823.3
27.5°	792.4	792.5	792.5	792.3	791.8	791.3	790.8	790.3
30°	768.9	768.6	768.2	767.8	767.3	766.8	766.3	765.8
32.5°	745.1	744.4	743.8	743.1	742.1	741.2	740.2	739.3
35°	708.0	707.2	706.3	705.2	703.9	702.5	701.1	699.7
37.5°	669.1	667.9	666.6	665.6	664.8	664.1	663.3	662.5
40°	642.2	640.7	639.1	638.1	637.6	637.1	636.6	636.1
42.5°	615.5	614.1	612.7	611.6	610.8	610.1	609.3	608.4
45°	575.9	573.9	571.9	570.6	570.1	569.6	569.1	568.6
47.5°	534.3	532.2	530.2	528.6	527.4	526.1	524.9	523.7
50°	505.8	503.6	501.4	499.7	498.5	497.3	496.0	494.9
52.5°	478.1	476.2	474.2	472.6	471.3	469.9	468.6	467.3
55°	435.0	433.5	432.0	430.6	429.4	428.2	427.1	425.9
57.5°	392.2	390.3	388.3	387.0	386.4	385.7	385.1	384.5
60°	363.3	361.6	359.9	358.5	357.3	356.1	354.9	353.8
62.5°	335.5	333.7	331.7	330.4	329.5	328.5	327.6	326.7
65°	291.5	290.0	288.5	287.4	286.7	286.0	285.4	284.7
67.5°	249.7	248.4	247.1	246.2	245.8	245.4	245.0	244.6
70°	222.0	221.0	219.9	219.1	218.4	217.7	217.0	216.4
72.5°	195.9	194.8	193.6	192.7	192.0	191.4	190.7	190.0
75°	155.5	155.0	154.5	153.9	153.2	152.5	151.9	151.2
77.5°	118.5	118.2	117.9	117.4	116.9	116.5	116.0	115.5
80°	94.8	94.6	94.4	94.2	93.8	93.5	93.2	92.8
82.5°	72.4	72.1	71.8	71.6	71.6	71.5	71.4	71.4
85°	42.6	42.4	42.3	42.0	41.7	41.3	41.0	40.7
87.5°	18.1	18.2	18.3	18.3	18.1	17.9	17.7	17.5
90°	10.5	11.1	11.8	12.3	12.7	13.0	13.4	13.8
92.5°	10.5	11.1	11.8	12.2	12.3	12.5	12.7	12.9
95°	10.5	11.1	11.8	12.1	12.1	12.1	12.1	12.1
97.5°	21.1	17.5	13.9	12.1	12.1	12.1	12.1	12.1
100°	62.1	43.0	23.9	14.1	13.6	13.1	12.6	12.1
102.5°	120.7	117.0	113.5	107.3	98.6	89.9	81.2	72.5
105°	171.7	171.7	171.7	171.7	171.5	171.4	171.3	171.1
107.5°	217.4	217.4	217.4	217.2	216.9	216.5	216.1	215.7
110°	247.0	246.6	246.2	246.1	246.2	246.3	246.5	246.6



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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	276.3	275.8	275.3	275.0	274.8	274.6	274.5	274.3
115°	320.4	319.9	319.4	318.8	318.0	317.3	316.5	315.8
117.5°	363.1	362.4	361.8	361.3	361.0	360.6	360.3	360.0
120°	390.7	390.4	390.2	389.7	389.1	388.5	387.8	387.2
122.5°	417.0	416.8	416.5	416.0	415.3	414.4	413.7	413.0
125°	455.3	454.7	454.2	453.8	453.4	453.0	452.7	452.3
127.5°	490.3	490.1	489.8	489.2	488.2	487.3	486.4	485.3
130°	513.2	512.8	512.4	511.9	511.3	510.6	510.0	509.4
132.5°	534.5	534.4	534.4	534.0	533.4	532.7	532.1	531.5
135°	565.8	565.6	565.3	564.8	564.1	563.3	562.5	561.8
137.5°	595.0	595.1	595.1	594.8	594.2	593.5	592.9	592.2
140°	613.0	613.2	613.5	613.2	612.5	611.7	611.0	610.2
142.5°	630.6	630.6	630.7	630.3	629.5	628.7	627.9	627.2
145°	655.4	655.5	655.6	655.3	654.5	653.8	653.0	652.2
147.5°	676.6	676.8	676.9	676.5	675.6	674.7	673.8	672.9
150°	690.1	690.4	690.6	690.3	689.3	688.2	687.2	686.2
152.5°	702.2	702.5	702.7	702.4	701.5	700.5	699.5	698.6
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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