

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: P331261-930

Luminaire Tested: **SA2XXDIP-C290D725U930-4F0-1E-UDD-D**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331261-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C290D725U930-4F0-1E-UDD-D
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 290 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 725 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

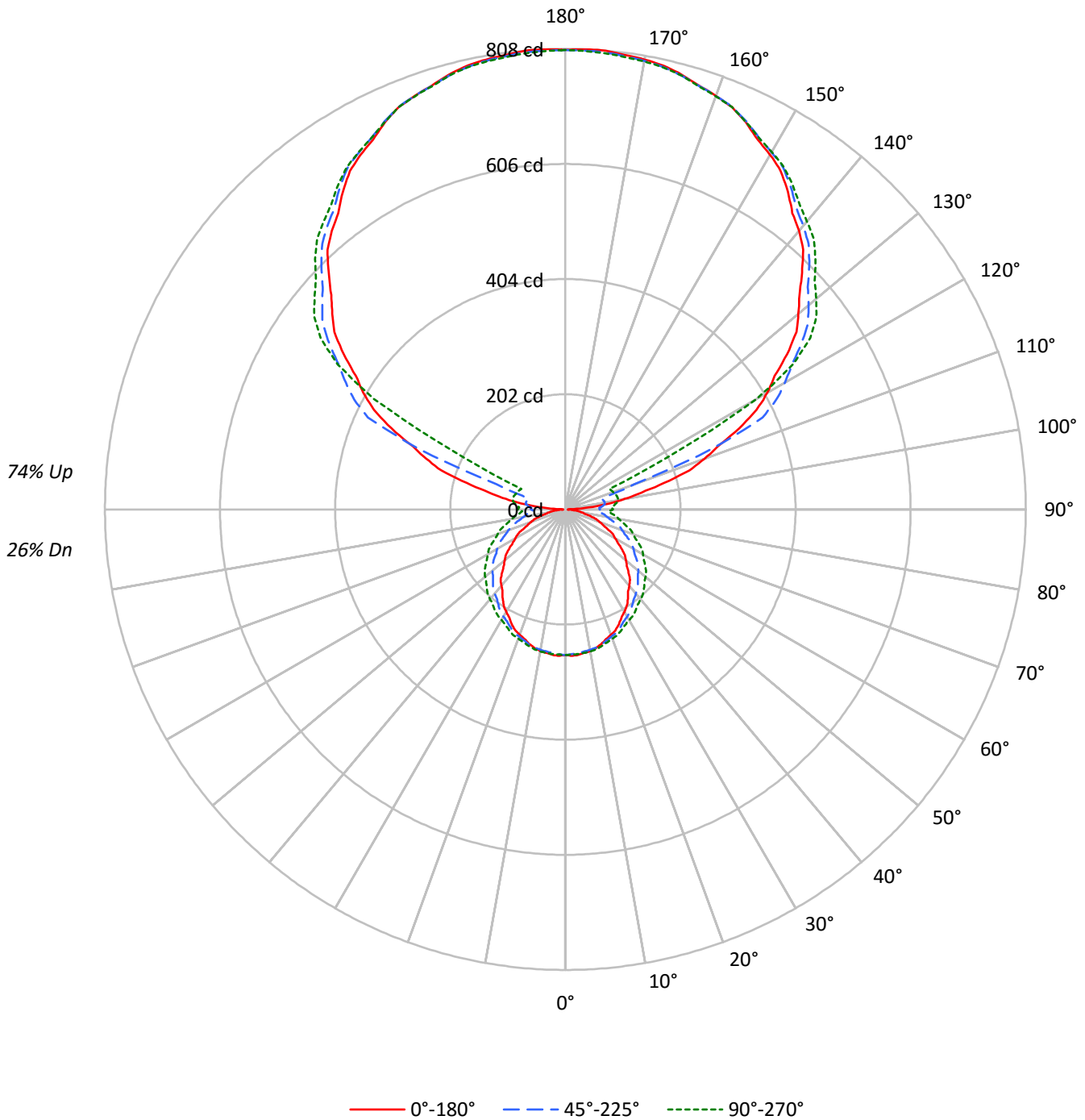
Lumens per Lamp: N/A
Luminaire Lumens: 3339.0 lumens
Efficiency: N/A
Efficacy: 107.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

Input Watts (W): 31.2
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



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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	50	30	10	0	
RCR																						
0	101	101	101	101	90	90	90	90	70	70	70	51	51	51	34	34	34	26				
1	92	87	83	79	81	78	74	71	60	58	56	44	42	41	29	28	27	20				
2	83	76	69	64	74	67	62	58	52	48	45	38	36	34	25	23	22	16				
3	76	66	59	53	67	59	53	48	46	41	38	33	30	28	22	20	19	13				
4	69	58	50	44	61	52	45	40	40	36	32	29	26	24	19	17	16	11				
5	63	52	44	38	56	46	39	34	36	31	27	26	23	20	17	15	14	10				
6	58	46	38	32	51	41	34	29	32	27	23	24	20	18	16	13	12	8				
7	53	41	34	28	47	37	30	25	29	24	20	21	18	15	14	12	10	7				
8	49	37	30	25	44	33	27	22	26	21	18	19	16	14	13	11	9	7				
9	46	34	27	22	41	30	24	20	24	19	16	18	14	12	12	10	8	6				
10	43	31	24	19	38	28	22	17	22	17	14	16	13	11	11	9	7	5				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4127	4127	4127
5°	4146	3973	3957
10°	4121	3855	3812
15°	4063	3730	3659
20°	3992	3597	3511
25°	3922	3468	3376
30°	3821	3336	3241
35°	3720	3209	3148
40°	3615	3101	3051
45°	3512	3004	2971
50°	3404	2917	2891
55°	3289	2822	2810
60°	3151	2723	2724
65°	3006	2608	2622
70°	2844	2485	2512
75°	2639	2365	2410
80°	2312	2240	2305
85°	2005	2134	2226



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.2	0.7
10°-20°	69.4	2.1
20°-30°	105.2	3.2
30°-40°	128.2	3.8
40°-50°	137.9	4.1
50°-60°	133.9	4.0
60°-70°	116.9	3.5
70°-80°	90.0	2.7
80°-90°	62.4	1.9
90°-100°	68.5	2.1
100°-110°	129.0	3.9
110°-120°	283.6	8.5
120°-130°	446.2	13.4
130°-140°	467.4	14.0
140°-150°	430.8	12.9
150°-160°	345.7	10.4
160°-170°	222.8	6.7
170°-180°	76.7	2.3
0°-30°	198.9	6.0
0°-40°	327.1	9.8
0°-60°	598.8	17.9
0°-90°	868.2	26.0
90°-120°	481.1	14.4
90°-150°	1825.6	54.7
90°-180°	2471.0	74.0
0°-180°	3339.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	256	256	256	256	256	
5°	256	255	253	255	255	24
15°	244	245	245	248	248	69
25°	222	225	228	232	234	102
35°	192	198	205	213	216	120
45°	157	167	180	191	195	121
55°	120	134	153	166	171	108
65°	82	101	122	137	142	82
75°	46	66	90	105	111	48
85°	13	36	60	75	81	14
90°	4	32	61	78	84	4
95°	41	41	65	82	86	49
105°	179	198	67	86	93	192
115°	337	352	382	135	85	331
125°	475	483	505	519	525	423
135°	587	596	605	618	621	453
145°	681	681	690	696	695	426
155°	749	745	751	754	750	345
165°	790	786	788	792	788	223
175°	808	804	805	808	803	77
180°	806	806	806	806	806	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	255.6	255.6	255.6	255.6	255.6	255.6	255.6	255.6	255.6	255.6	255.6
2.5°	257.1	256.8	256.7	256.4	256.2	255.9	255.4	255.0	254.5	254.0	254.4
5°	256.3	256.1	255.8	255.6	255.3	254.9	254.5	254.0	253.5	253.0	253.5
7.5°	254.0	253.8	253.6	253.5	253.3	253.1	252.7	252.3	251.9	251.5	252.2
10°	252.3	252.1	251.9	251.8	251.6	251.4	251.1	250.9	250.6	250.4	251.0
12.5°	249.2	249.3	249.3	249.4	249.4	249.3	249.2	249.0	248.7	248.6	249.2
15°	244.4	244.6	244.8	244.9	245.1	245.2	245.2	245.2	245.2	245.2	245.9
17.5°	238.2	238.6	238.9	239.3	239.6	239.9	240.2	240.4	240.7	241.0	241.7
20°	234.1	234.5	234.9	235.3	235.7	236.1	236.4	236.8	237.1	237.4	238.3
22.5°	229.7	230.1	230.6	231.1	231.5	232.0	232.4	232.9	233.4	233.8	234.7
25°	222.3	222.8	223.4	224.0	224.5	225.2	225.9	226.7	227.4	228.1	229.1
27.5°	213.4	214.3	215.2	216.1	217.1	218.0	218.8	219.7	220.6	221.5	222.7
30°	207.4	208.5	209.5	210.6	211.7	212.8	213.9	214.9	216.0	217.0	218.3
32.5°	200.9	202.1	203.3	204.5	205.7	206.9	208.2	209.5	210.8	212.0	213.5
35°	191.5	192.9	194.3	195.7	197.1	198.5	200.2	201.7	203.3	204.8	206.6
37.5°	181.2	182.9	184.5	186.1	187.7	189.6	191.6	193.6	195.6	197.6	199.7
40°	174.5	176.3	178.1	179.9	181.6	183.7	185.9	188.2	190.4	192.6	194.7
42.5°	168.0	169.7	171.5	173.3	175.2	177.3	179.9	182.5	185.0	187.5	189.9
45°	157.0	159.2	161.5	163.7	165.9	168.4	171.4	174.2	177.1	180.0	182.5
47.5°	146.3	148.7	151.2	153.5	156.0	158.9	162.2	165.6	169.0	172.4	175.0
50°	138.9	141.5	144.0	146.5	149.1	152.2	156.0	159.6	163.3	167.1	169.8
52.5°	131.8	134.4	137.1	139.8	142.5	145.8	149.7	153.6	157.5	161.4	164.3
55°	120.3	123.4	126.3	129.2	132.2	135.8	140.1	144.4	148.7	153.0	156.0
57.5°	109.1	112.4	115.8	119.1	122.5	126.3	130.7	135.0	139.4	143.8	147.0
60°	101.1	104.7	108.2	111.7	115.3	119.4	124.1	128.7	133.5	138.1	141.3
62.5°	94.0	97.7	101.3	105.0	108.7	112.8	117.6	122.2	126.9	131.7	134.9
65°	82.2	86.3	90.3	94.3	98.3	102.8	107.6	112.5	117.4	122.2	125.6
67.5°	71.4	75.7	79.8	84.1	88.3	92.9	97.8	102.8	107.8	112.8	116.2
70°	63.7	68.0	72.2	76.6	80.8	85.5	90.6	95.7	100.9	105.9	109.5
72.5°	56.6	61.0	65.4	69.8	74.3	79.0	84.2	89.4	94.6	99.7	103.2
75°	45.6	50.1	54.8	59.4	64.0	68.9	74.2	79.5	84.7	90.0	93.5
77.5°	34.9	39.7	44.5	49.3	54.2	59.3	64.7	70.0	75.3	80.6	84.2
80°	27.8	32.8	37.8	42.8	47.9	53.1	58.4	63.8	69.1	74.4	77.9
82.5°	21.9	26.8	31.8	36.7	41.7	46.9	52.3	57.7	63.1	68.5	72.0
85°	13.4	18.4	23.6	28.6	33.8	38.9	44.2	49.5	54.7	60.0	63.4
87.5°	7.3	12.6	17.8	22.9	28.1	33.5	39.0	44.4	49.9	55.4	58.9
90°	4.3	10.5	16.7	22.9	29.1	35.3	41.7	47.9	54.2	60.6	64.5
92.5°	15.2	19.5	23.8	28.1	32.4	37.4	43.0	48.6	54.1	59.8	63.3
95°	40.8	40.4	40.0	39.6	39.2	42.0	47.8	53.6	59.5	65.3	69.1
97.5°	77.9	69.2	60.6	52.0	43.4	42.5	49.3	56.2	63.0	69.9	73.4
100°	105.8	91.2	76.4	61.7	47.0	43.0	49.8	56.7	63.4	70.3	74.4
102.5°	136.3	135.3	134.4	133.4	132.4	125.0	111.0	97.0	83.1	69.1	73.5
105°	179.1	185.4	191.7	198.0	204.2	191.8	160.7	129.6	98.6	67.4	71.7
107.5°	228.4	233.4	238.5	243.5	248.6	232.0	193.6	155.3	116.9	78.6	79.9
110°	259.8	264.2	268.6	273.0	277.3	262.8	229.3	195.9	162.5	129.1	118.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	289.7	293.5	297.3	301.1	304.8	304.0	298.6	293.3	287.8	282.4	237.7
115°	336.8	339.9	343.1	346.2	349.3	354.3	361.3	368.2	375.1	382.0	324.5
117.5°	378.5	381.6	384.7	387.8	390.8	395.2	400.8	406.4	412.1	417.8	405.7
120°	409.4	411.6	413.9	416.2	418.4	422.4	428.0	433.7	439.3	444.9	448.7
122.5°	435.5	437.7	439.9	442.1	444.2	448.1	453.7	459.4	465.0	470.7	473.9
125°	474.9	476.5	478.3	480.0	481.6	485.0	490.2	495.2	500.3	505.4	508.5
127.5°	510.9	512.7	514.5	516.2	518.0	521.0	524.9	528.9	532.8	536.8	540.1
130°	533.8	535.8	537.8	539.8	541.8	544.3	547.5	550.7	553.8	556.9	560.4
132.5°	557.1	558.8	560.5	562.1	563.9	566.1	568.8	571.6	574.4	577.1	580.2
135°	587.1	589.1	591.3	593.3	595.4	597.4	599.4	601.4	603.4	605.4	608.4
137.5°	617.8	619.2	620.6	622.1	623.5	625.1	626.7	628.4	630.1	631.8	634.5
140°	637.8	638.8	639.8	640.7	641.6	642.9	644.5	646.1	647.7	649.3	651.8
142.5°	654.6	655.5	656.3	657.1	658.0	659.3	661.0	662.6	664.3	665.9	668.1
145°	680.6	680.4	680.4	680.2	680.1	681.1	683.3	685.5	687.7	689.9	691.4
147.5°	703.6	703.1	702.6	702.1	701.6	702.5	704.7	706.8	709.0	711.2	711.9
150°	718.5	717.6	716.7	715.8	714.9	715.5	717.5	719.6	721.7	723.7	724.6
152.5°	731.1	730.1	729.1	728.1	727.1	727.6	729.5	731.5	733.4	735.4	736.2
155°	749.4	748.3	747.1	745.9	744.8	744.9	746.5	748.0	749.6	751.1	752.0
157.5°	763.8	762.8	761.8	760.8	759.9	759.9	761.0	762.1	763.1	764.3	765.2
160°	772.2	771.4	770.6	769.8	769.1	769.1	769.8	770.6	771.4	772.2	773.0
162.5°	779.7	778.9	778.1	777.3	776.5	776.5	777.1	777.8	778.5	779.2	780.1
165°	789.7	788.9	788.1	787.3	786.5	786.4	786.8	787.2	787.5	787.9	788.8
167.5°	797.1	796.4	795.6	794.8	794.0	793.8	794.2	794.5	794.9	795.2	796.1
170°	801.4	800.5	799.8	799.0	798.3	797.9	798.3	798.5	798.7	799.0	799.9
172.5°	804.1	803.3	802.6	801.8	801.0	800.8	801.0	801.3	801.5	801.8	802.7
175°	807.7	806.8	805.9	805.0	804.1	803.8	804.0	804.3	804.5	804.9	805.8
177.5°	808.4	807.6	806.9	806.2	805.4	805.1	805.2	805.4	805.4	805.5	806.2
180°	806.0	806.0	806.0	806.0	806.0	806.0	806.0	806.0	806.0	806.0	806.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	255.6	255.6	255.6	255.6	255.6	255.6	255.6	255.6
2.5°	254.7	255.0	255.4	255.5	255.4	255.2	255.1	254.9
5°	254.0	254.5	254.9	255.1	255.0	254.9	254.9	254.8
7.5°	252.7	253.3	254.0	254.2	254.1	254.0	254.0	253.9
10°	251.7	252.3	253.0	253.3	253.2	253.2	253.1	253.0
12.5°	249.9	250.5	251.2	251.5	251.4	251.4	251.3	251.2
15°	246.6	247.4	248.2	248.5	248.4	248.3	248.3	248.2
17.5°	242.6	243.3	244.0	244.4	244.4	244.4	244.4	244.4
20°	239.2	240.1	241.0	241.5	241.5	241.5	241.5	241.5
22.5°	235.7	236.6	237.5	238.0	238.1	238.2	238.4	238.6
25°	230.2	231.1	232.1	232.7	232.9	233.2	233.4	233.7
27.5°	224.0	225.3	226.5	227.2	227.4	227.6	227.7	228.0
30°	219.6	221.0	222.3	223.1	223.3	223.6	223.8	224.0
32.5°	215.0	216.5	218.1	219.1	219.5	220.0	220.4	220.8
35°	208.5	210.3	212.1	213.3	213.9	214.4	215.0	215.6
37.5°	201.6	203.7	205.7	207.0	207.6	208.2	208.8	209.4
40°	196.9	199.0	201.1	202.6	203.3	204.1	204.8	205.5
42.5°	192.2	194.5	196.9	198.4	199.2	199.9	200.6	201.4
45°	185.1	187.7	190.2	191.9	192.7	193.6	194.4	195.2
47.5°	177.7	180.3	183.0	184.8	185.7	186.6	187.5	188.4
50°	172.6	175.5	178.2	180.1	181.0	181.9	182.8	183.7
52.5°	167.1	170.0	172.8	174.8	175.8	176.8	177.7	178.6
55°	158.9	161.8	164.9	166.8	167.9	169.0	170.1	171.1
57.5°	150.2	153.4	156.5	158.7	159.8	160.9	161.9	163.1
60°	144.4	147.6	150.7	152.8	153.9	155.1	156.3	157.4
62.5°	138.3	141.6	145.0	147.2	148.2	149.3	150.4	151.5
65°	129.0	132.3	135.7	137.9	139.0	140.1	141.1	142.2
67.5°	119.5	122.9	126.4	128.7	129.7	130.9	132.0	133.1
70°	113.0	116.5	120.1	122.4	123.4	124.3	125.3	126.3
72.5°	106.6	110.1	113.6	115.9	117.1	118.3	119.5	120.7
75°	97.1	100.6	104.2	106.5	107.5	108.6	109.7	110.7
77.5°	87.7	91.2	94.7	97.1	98.2	99.4	100.5	101.7
80°	81.4	84.8	88.3	90.6	91.7	92.9	94.0	95.1
82.5°	75.4	78.9	82.3	84.6	85.7	86.8	87.9	88.9
85°	66.9	70.4	73.9	76.1	77.3	78.4	79.6	80.7
87.5°	62.4	65.8	69.3	71.6	72.7	73.9	74.9	76.1
90°	68.4	72.4	76.3	78.9	80.1	81.4	82.7	83.9
92.5°	66.9	70.4	74.0	76.4	77.5	78.7	79.8	81.0
95°	72.9	76.6	80.5	82.8	83.6	84.5	85.4	86.2
97.5°	77.0	80.6	84.1	86.4	87.6	88.7	89.8	91.0
100°	78.4	82.5	86.6	89.2	90.4	91.6	92.7	93.9
102.5°	77.8	82.1	86.4	89.3	90.5	91.8	93.0	94.3
105°	76.1	80.3	84.6	87.5	88.9	90.3	91.8	93.2
107.5°	81.3	82.6	83.9	85.3	86.7	88.1	89.5	90.9
110°	108.4	98.1	87.8	83.3	84.8	86.2	87.6	89.0



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CATALOG NUMBER: SA2XXDIP-C290D725U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	193.1	148.5	103.8	82.2	83.5	84.8	86.1	87.4
115°	267.0	209.5	151.9	119.0	110.5	102.1	93.7	85.2
117.5°	393.6	381.5	369.4	348.5	318.6	288.9	259.0	229.2
120°	452.7	456.5	460.3	454.0	437.4	420.8	404.2	387.6
122.5°	477.0	480.1	483.3	483.6	481.0	478.3	475.7	473.1
125°	511.7	514.8	518.0	520.1	521.2	522.3	523.4	524.6
127.5°	543.6	546.9	550.2	552.4	553.1	553.9	554.7	555.5
130°	563.8	567.1	570.5	572.5	573.1	573.6	574.1	574.6
132.5°	583.3	586.4	589.6	591.4	592.0	592.5	593.0	593.5
135°	611.4	614.4	617.4	619.1	619.5	620.0	620.4	620.8
137.5°	637.4	640.2	642.9	644.4	644.5	644.7	644.7	644.8
140°	654.3	656.7	659.2	660.4	660.2	660.1	659.9	659.7
142.5°	670.2	672.3	674.4	675.4	675.1	674.9	674.7	674.5
145°	692.8	694.1	695.5	696.1	695.9	695.6	695.5	695.2
147.5°	712.7	713.4	714.1	714.3	714.0	713.6	713.3	712.9
150°	725.3	726.1	726.8	726.9	726.3	725.6	725.0	724.3
152.5°	736.9	737.8	738.6	738.5	737.7	736.8	736.0	735.1
155°	752.8	753.5	754.3	754.2	753.1	752.1	751.1	750.0
157.5°	766.0	766.9	767.8	767.7	766.7	765.6	764.7	763.7
160°	773.7	774.5	775.3	775.2	774.3	773.4	772.5	771.6
162.5°	780.9	781.8	782.7	782.6	781.5	780.3	779.3	778.1
165°	789.7	790.7	791.6	791.6	790.7	789.7	788.8	787.9
167.5°	797.1	798.0	798.9	798.7	797.6	796.5	795.2	794.1
170°	800.8	801.7	802.7	802.5	801.4	800.1	799.0	797.9
172.5°	803.6	804.5	805.4	805.3	804.1	803.0	801.8	800.6
175°	806.7	807.6	808.5	808.3	807.0	805.7	804.4	803.1
177.5°	807.0	807.7	808.5	808.4	807.4	806.5	805.5	804.6
180°	806.0	806.0	806.0	806.0	806.0	806.0	806.0	806.0

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