

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: P331262-940

Luminaire Tested: **SA2XXDIP-C290D725U940-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331262-940
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C290D725U940-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 290 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 725 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3379.1 lumens
Efficiency: N/A
Efficacy: 108.3 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

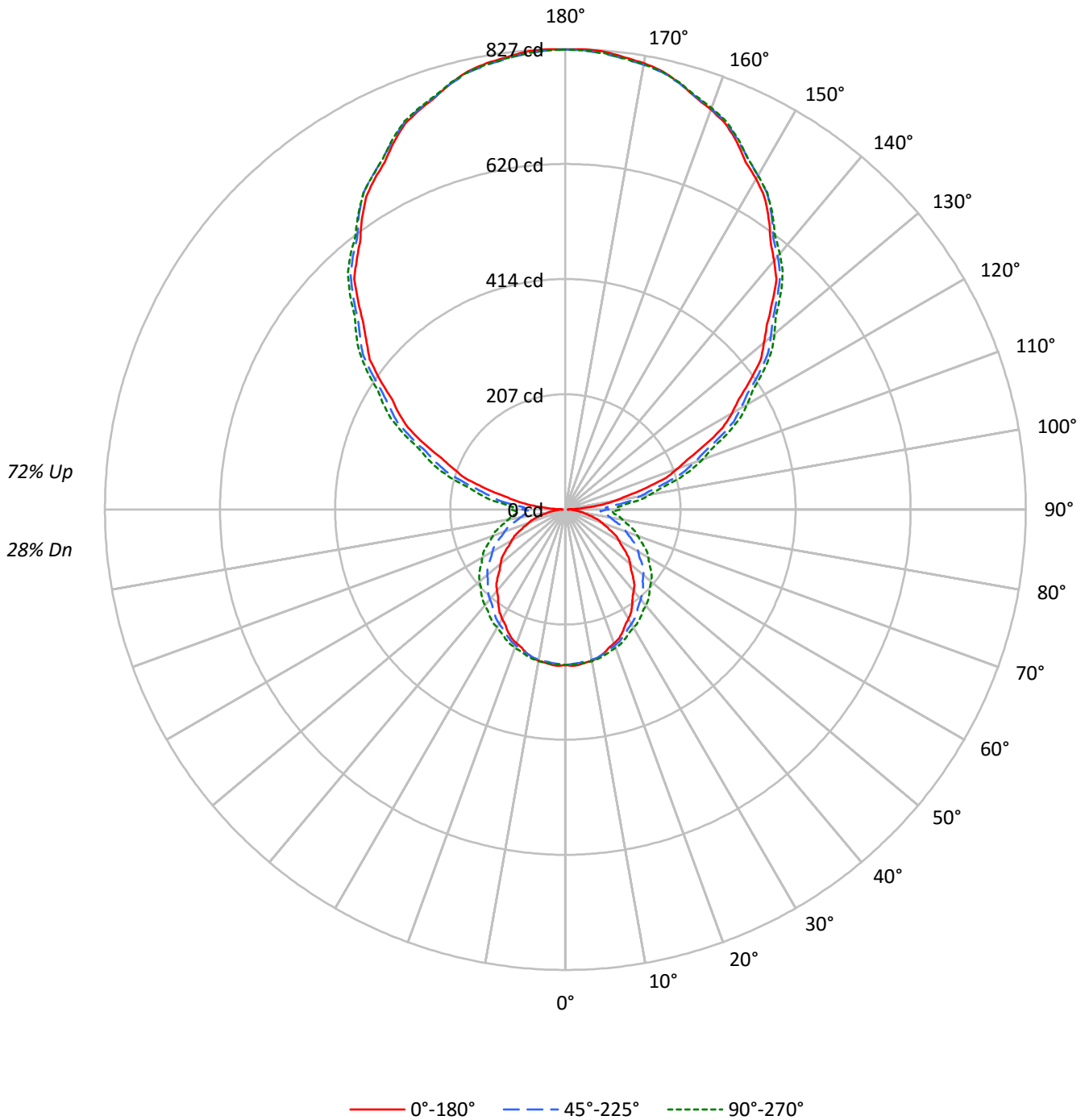
Input Watts (W): 31.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36	28
1	92	87	83	80	82	78	75	72	61	59	56	45	44	42	30	30	29	22
2	83	76	70	64	74	68	63	58	53	49	46	39	37	34	26	25	23	18
3	76	66	59	53	67	59	53	48	46	42	38	34	31	29	23	21	20	15
4	69	58	51	44	61	52	46	40	41	36	32	30	27	24	20	18	17	12
5	63	52	44	38	56	46	39	34	36	31	27	27	24	21	18	16	14	11
6	58	46	38	32	52	41	35	29	33	27	24	24	21	18	16	14	12	9
7	54	41	34	28	48	37	30	26	29	24	21	22	18	16	15	13	11	8
8	50	37	30	25	44	34	27	22	27	22	18	20	16	14	14	11	10	7
9	46	34	27	22	41	31	24	20	24	19	16	18	15	12	13	10	9	6
10	43	31	24	19	38	28	22	18	22	18	14	17	13	11	12	9	8	6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4514	4514	4514
5°	4536	4345	4328
10°	4507	4215	4169
15°	4443	4079	4001
20°	4366	3935	3839
25°	4289	3793	3693
30°	4180	3650	3544
35°	4070	3510	3442
40°	3952	3391	3338
45°	3841	3286	3250
50°	3723	3189	3162
55°	3597	3086	3074
60°	3447	2979	2980
65°	3288	2854	2867
70°	3108	2717	2746
75°	2883	2585	2636
80°	2528	2450	2524
85°	2185	2333	2436



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.5	0.8
10°-20°	75.9	2.2
20°-30°	115.1	3.4
30°-40°	140.2	4.1
40°-50°	150.8	4.5
50°-60°	146.5	4.3
60°-70°	127.9	3.8
70°-80°	98.4	2.9
80°-90°	69.4	2.1
90°-100°	97.8	2.9
100°-110°	195.8	5.8
110°-120°	299.8	8.9
120°-130°	377.6	11.2
130°-140°	415.2	12.3
140°-150°	403.0	11.9
150°-160°	337.3	10.0
160°-170°	223.7	6.6
170°-180°	78.2	2.3
0°-30°	217.5	6.4
0°-40°	357.7	10.6
0°-60°	654.9	19.4
0°-90°	950.6	28.1
90°-120°	593.4	17.6
90°-150°	1789.3	53.0
90°-180°	2428.0	71.9
0°-180°	3379.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	280	280	280	280	280	
5°	280	279	277	279	279	27
15°	267	268	268	272	271	75
25°	243	246	250	254	256	112
35°	210	216	224	233	236	131
45°	172	183	197	209	214	133
55°	132	147	167	181	187	118
65°	90	110	134	150	156	89
75°	50	73	98	115	121	53
85°	15	40	66	82	88	16
90°	5	37	78	92	98	5
95°	40	65	91	106	110	44
105°	152	166	188	203	208	161
115°	280	290	306	317	320	277
125°	406	413	424	432	435	363
135°	525	533	538	546	547	406
145°	637	642	646	649	648	398
155°	728	730	732	736	734	335
165°	792	792	792	796	793	223
175°	825	822	821	825	822	78
180°	826	826	826	826	826	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	279.6	279.6	279.6	279.6	279.6	279.6	279.6	279.6	279.6	279.6	279.6
2.5°	281.2	280.9	280.7	280.4	280.3	279.9	279.4	278.9	278.4	277.9	278.2
5°	280.4	280.1	279.8	279.6	279.2	278.8	278.3	277.8	277.2	276.7	277.2
7.5°	277.8	277.6	277.4	277.2	277.1	276.8	276.3	276.0	275.5	275.1	275.8
10°	275.9	275.7	275.5	275.4	275.2	274.9	274.6	274.4	274.1	273.8	274.6
12.5°	272.6	272.7	272.7	272.8	272.8	272.7	272.5	272.3	272.1	271.9	272.6
15°	267.3	267.5	267.7	267.9	268.0	268.1	268.1	268.1	268.1	268.1	268.9
17.5°	260.6	260.9	261.3	261.7	262.1	262.4	262.7	263.0	263.2	263.6	264.4
20°	256.0	256.5	256.9	257.3	257.8	258.2	258.6	259.0	259.3	259.7	260.6
22.5°	251.2	251.6	252.2	252.7	253.2	253.8	254.2	254.8	255.3	255.7	256.7
25°	243.1	243.7	244.3	245.0	245.6	246.3	247.1	247.9	248.7	249.5	250.6
27.5°	233.4	234.3	235.4	236.4	237.5	238.4	239.3	240.3	241.3	242.3	243.6
30°	226.9	228.0	229.2	230.3	231.5	232.7	233.9	235.1	236.2	237.4	238.8
32.5°	219.7	221.1	222.3	223.6	225.0	226.3	227.7	229.1	230.5	231.8	233.5
35°	209.5	211.0	212.5	214.0	215.5	217.1	218.9	220.6	222.3	224.0	226.0
37.5°	198.2	200.0	201.8	203.6	205.3	207.3	209.6	211.7	213.9	216.2	218.4
40°	190.8	192.8	194.7	196.7	198.7	200.9	203.3	205.8	208.2	210.6	212.9
42.5°	183.7	185.7	187.6	189.6	191.6	193.9	196.8	199.6	202.3	205.1	207.7
45°	171.7	174.2	176.6	179.1	181.5	184.2	187.4	190.6	193.7	196.9	199.7
47.5°	160.0	162.6	165.3	167.9	170.6	173.8	177.5	181.1	184.9	188.5	191.5
50°	151.9	154.7	157.5	160.2	163.1	166.5	170.6	174.6	178.6	182.7	185.7
52.5°	144.1	147.0	150.0	152.9	155.9	159.4	163.7	168.0	172.3	176.6	179.7
55°	131.6	134.9	138.1	141.3	144.6	148.6	153.3	157.9	162.6	167.3	170.6
57.5°	119.3	123.0	126.6	130.3	133.9	138.1	142.9	147.7	152.5	157.3	160.8
60°	110.6	114.5	118.3	122.2	126.1	130.5	135.7	140.8	146.0	151.1	154.5
62.5°	102.8	106.8	110.8	114.9	118.9	123.4	128.6	133.7	138.8	144.0	147.6
65°	89.9	94.3	98.7	103.2	107.5	112.4	117.7	123.1	128.4	133.7	137.4
67.5°	78.1	82.8	87.3	91.9	96.6	101.6	107.0	112.4	117.9	123.3	127.1
70°	69.6	74.4	79.0	83.7	88.4	93.5	99.1	104.7	110.3	115.8	119.8
72.5°	61.9	66.7	71.5	76.3	81.2	86.4	92.1	97.7	103.4	109.1	112.9
75°	49.8	54.8	59.9	64.9	70.0	75.3	81.1	86.9	92.6	98.4	102.3
77.5°	38.2	43.4	48.7	53.9	59.3	64.8	70.7	76.5	82.4	88.2	92.1
80°	30.4	35.8	41.4	46.8	52.3	58.1	63.8	69.7	75.5	81.4	85.2
82.5°	23.9	29.3	34.8	40.1	45.6	51.3	57.2	63.1	69.0	74.9	78.7
85°	14.6	20.2	25.8	31.3	36.9	42.5	48.3	54.1	59.8	65.6	69.4
87.5°	8.1	13.8	19.5	25.3	31.0	37.1	43.5	50.0	56.4	62.9	66.5
90°	4.7	11.9	18.9	25.9	33.1	41.2	50.4	59.6	68.7	77.8	81.1
92.5°	16.1	22.4	28.6	34.8	41.0	47.3	53.7	60.0	66.3	72.8	76.3
95°	39.5	45.3	51.0	56.8	62.6	68.3	74.1	79.8	85.5	91.2	94.6
97.5°	69.0	74.2	79.3	84.4	89.5	95.0	100.8	106.6	112.4	118.1	121.5
100°	91.3	95.9	100.5	105.0	109.6	114.7	120.2	125.6	131.2	136.7	140.0
102.5°	114.4	118.5	122.5	126.5	130.5	135.4	140.8	146.3	151.8	157.3	160.7
105°	151.9	155.0	158.0	161.1	164.2	168.2	173.2	178.2	183.2	188.2	191.6
107.5°	190.0	192.8	195.6	198.3	201.1	204.7	209.2	213.7	218.1	222.7	225.8
110°	214.2	217.0	219.6	222.4	225.2	228.7	233.1	237.6	241.9	246.4	249.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	240.9	243.4	245.8	248.3	250.7	254.0	258.1	262.2	266.2	270.3	272.8
115°	280.4	282.3	284.3	286.1	288.1	291.0	294.7	298.4	302.1	305.9	308.4
117.5°	319.3	321.2	323.1	325.0	326.9	329.2	332.2	335.0	337.9	340.7	343.0
120°	345.5	347.1	348.7	350.4	352.0	353.9	356.2	358.6	361.0	363.4	365.9
122.5°	369.5	371.1	372.7	374.4	376.0	378.1	380.6	383.2	385.7	388.2	390.2
125°	406.4	407.9	409.3	410.6	412.1	413.9	416.3	418.7	421.2	423.7	425.6
127.5°	442.8	444.5	446.2	447.9	449.5	451.3	453.1	454.8	456.6	458.3	460.0
130°	465.7	467.6	469.6	471.4	473.4	475.2	476.7	478.3	479.9	481.4	483.3
132.5°	491.3	492.9	494.5	496.0	497.6	499.1	500.6	502.1	503.6	505.2	506.6
135°	525.2	526.9	528.7	530.4	532.1	533.5	534.8	535.9	537.2	538.3	540.1
137.5°	561.3	562.8	564.1	565.4	566.9	567.9	568.7	569.5	570.3	571.1	572.7
140°	583.1	584.4	585.7	587.0	588.4	589.4	590.4	591.4	592.3	593.3	594.7
142.5°	605.4	606.7	608.0	609.3	610.6	611.5	612.1	612.7	613.2	613.8	615.1
145°	637.0	638.1	639.3	640.3	641.4	642.4	643.4	644.3	645.2	646.1	646.8
147.5°	665.7	666.9	668.2	669.5	670.8	671.8	672.4	673.1	673.7	674.3	674.7
150°	685.2	686.1	687.0	688.0	688.8	689.6	690.3	690.9	691.5	692.1	692.6
152.5°	702.4	703.4	704.3	705.3	706.1	706.9	707.8	708.5	709.2	710.0	710.5
155°	728.3	728.8	729.3	729.8	730.2	730.7	731.1	731.6	732.1	732.5	733.3
157.5°	750.6	750.8	751.2	751.4	751.8	752.1	752.3	752.6	752.9	753.1	754.2
160°	763.9	764.2	764.6	764.8	765.2	765.4	765.5	765.7	765.9	766.0	767.0
162.5°	776.1	776.2	776.3	776.3	776.4	776.5	776.7	776.9	777.0	777.1	778.2
165°	792.5	792.4	792.2	792.0	791.8	791.8	791.8	791.8	791.8	791.8	792.9
167.5°	806.1	805.7	805.2	804.8	804.3	804.1	804.1	804.0	804.0	803.9	805.0
170°	813.4	813.0	812.4	812.0	811.5	811.2	811.1	810.9	810.7	810.6	811.7
172.5°	818.4	818.0	817.5	817.0	816.5	816.3	816.1	815.9	815.8	815.6	816.7
175°	824.6	824.1	823.6	823.1	822.7	822.3	822.0	821.7	821.4	821.1	822.2
177.5°	827.1	826.7	826.3	825.9	825.5	825.3	825.0	824.7	824.5	824.3	825.0
180°	825.9	825.9	825.9	825.9	825.9	825.9	825.9	825.9	825.9	825.9	825.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	279.6	279.6	279.6	279.6	279.6	279.6	279.6	279.6
2.5°	278.6	278.9	279.3	279.5	279.3	279.1	279.0	278.8
5°	277.8	278.3	278.8	279.0	278.9	278.8	278.7	278.7
7.5°	276.4	277.1	277.8	278.0	277.9	277.9	277.8	277.7
10°	275.3	276.0	276.7	277.1	277.0	276.9	276.8	276.7
12.5°	273.3	274.0	274.7	275.1	275.0	274.9	274.8	274.7
15°	269.7	270.6	271.4	271.8	271.7	271.6	271.5	271.4
17.5°	265.3	266.1	266.9	267.3	267.3	267.3	267.3	267.3
20°	261.6	262.6	263.6	264.1	264.1	264.1	264.1	264.1
22.5°	257.8	258.8	259.8	260.3	260.5	260.6	260.7	260.9
25°	251.7	252.8	253.9	254.5	254.8	255.0	255.3	255.6
27.5°	245.0	246.4	247.7	248.5	248.7	248.9	249.1	249.3
30°	240.2	241.7	243.2	244.0	244.2	244.5	244.8	245.0
32.5°	235.1	236.8	238.5	239.6	240.0	240.6	241.0	241.5
35°	228.0	230.0	231.9	233.3	233.9	234.5	235.1	235.8
37.5°	220.5	222.7	225.0	226.4	227.0	227.7	228.4	229.0
40°	215.3	217.7	220.0	221.6	222.4	223.2	224.0	224.8
42.5°	210.3	212.8	215.3	217.0	217.8	218.6	219.5	220.3
45°	202.4	205.3	208.0	209.9	210.8	211.7	212.6	213.5
47.5°	194.4	197.2	200.2	202.2	203.1	204.1	205.1	206.1
50°	188.8	191.9	194.9	197.0	198.0	198.9	199.9	200.9
52.5°	182.8	185.9	189.0	191.2	192.3	193.3	194.4	195.4
55°	173.8	177.0	180.3	182.4	183.6	184.9	186.0	187.2
57.5°	164.3	167.7	171.2	173.5	174.8	175.9	177.1	178.3
60°	157.9	161.4	164.8	167.1	168.4	169.6	170.9	172.2
62.5°	151.2	154.9	158.5	161.0	162.1	163.3	164.5	165.7
65°	141.1	144.7	148.5	150.9	152.0	153.2	154.4	155.5
67.5°	130.7	134.5	138.2	140.7	141.9	143.1	144.4	145.6
70°	123.6	127.4	131.3	133.8	134.9	136.0	137.1	138.1
72.5°	116.6	120.5	124.2	126.8	128.0	129.4	130.7	132.0
75°	106.2	110.0	114.0	116.5	117.6	118.8	119.9	121.1
77.5°	95.9	99.8	103.6	106.2	107.5	108.7	109.9	111.2
80°	89.0	92.7	96.6	99.1	100.3	101.6	102.8	104.1
82.5°	82.5	86.3	90.1	92.6	93.7	95.0	96.1	97.3
85°	73.2	77.0	80.8	83.3	84.5	85.8	87.0	88.3
87.5°	70.1	73.7	77.3	79.7	80.9	82.1	83.3	84.4
90°	84.4	87.7	91.0	93.3	94.5	95.8	97.0	98.3
92.5°	79.9	83.5	87.1	89.4	90.5	91.7	92.7	93.9
95°	98.0	101.5	104.9	107.0	107.7	108.5	109.3	110.0
97.5°	124.8	128.0	131.4	133.6	134.6	135.6	136.7	137.8
100°	143.4	146.7	150.0	152.1	152.9	153.7	154.6	155.4
102.5°	164.1	167.5	170.9	172.9	173.8	174.6	175.4	176.3
105°	195.1	198.6	202.1	204.2	205.3	206.3	207.2	208.2
107.5°	228.9	232.1	235.2	236.9	237.2	237.5	237.7	238.1
110°	252.1	254.9	257.9	259.6	260.1	260.6	261.2	261.6



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CATALOG NUMBER: SA2XXDIP-C290D725U940-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	275.3	277.8	280.4	281.9	282.6	283.2	283.8	284.5
115°	310.9	313.5	316.1	317.6	318.2	318.7	319.1	319.7
117.5°	345.4	347.7	349.9	351.3	351.8	352.2	352.7	353.1
120°	368.4	371.0	373.4	375.0	375.5	376.0	376.6	377.1
122.5°	392.4	394.4	396.5	397.8	398.2	398.8	399.3	399.8
125°	427.6	429.5	431.5	432.7	433.5	434.1	434.7	435.4
127.5°	461.6	463.3	465.0	466.0	466.3	466.6	466.9	467.2
130°	485.2	487.1	488.8	489.8	490.0	490.1	490.2	490.3
132.5°	508.0	509.4	510.8	511.7	511.8	512.1	512.3	512.6
135°	541.8	543.6	545.3	546.3	546.5	546.8	547.1	547.3
137.5°	574.2	575.8	577.3	578.0	578.0	578.0	578.0	578.0
140°	596.1	597.6	599.1	599.7	599.6	599.6	599.5	599.4
142.5°	616.4	617.6	618.9	619.5	619.3	619.2	619.0	618.8
145°	647.5	648.2	648.9	649.2	649.0	648.8	648.6	648.5
147.5°	675.1	675.5	675.9	675.9	675.6	675.2	674.8	674.5
150°	693.0	693.5	694.0	694.0	693.5	693.0	692.6	692.1
152.5°	711.1	711.8	712.3	712.3	711.8	711.1	710.5	710.0
155°	734.1	734.9	735.7	735.8	735.3	734.9	734.4	734.0
157.5°	755.3	756.3	757.4	757.5	756.8	756.1	755.3	754.6
160°	767.9	768.8	769.7	769.9	769.3	768.7	768.0	767.4
162.5°	779.3	780.3	781.4	781.5	780.8	780.1	779.3	778.6
165°	794.0	795.0	796.1	796.3	795.5	794.7	794.0	793.2
167.5°	806.1	807.2	808.2	808.4	807.6	806.8	806.0	805.2
170°	812.8	813.9	814.9	815.0	814.1	813.2	812.3	811.3
172.5°	817.8	818.9	819.9	820.0	819.1	818.1	817.3	816.4
175°	823.2	824.3	825.4	825.5	824.6	823.6	822.7	821.8
177.5°	825.7	826.5	827.2	827.2	826.5	825.7	825.0	824.3
180°	825.9	825.9	825.9	825.9	825.9	825.9	825.9	825.9

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