

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: P331270-927

Luminaire Tested: **SA2XXDIP-C290D925U927-4F0-1E-UDD-D**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331270-927
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-C290D925U927-4F0-1E-UDD-D
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 290 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 925 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

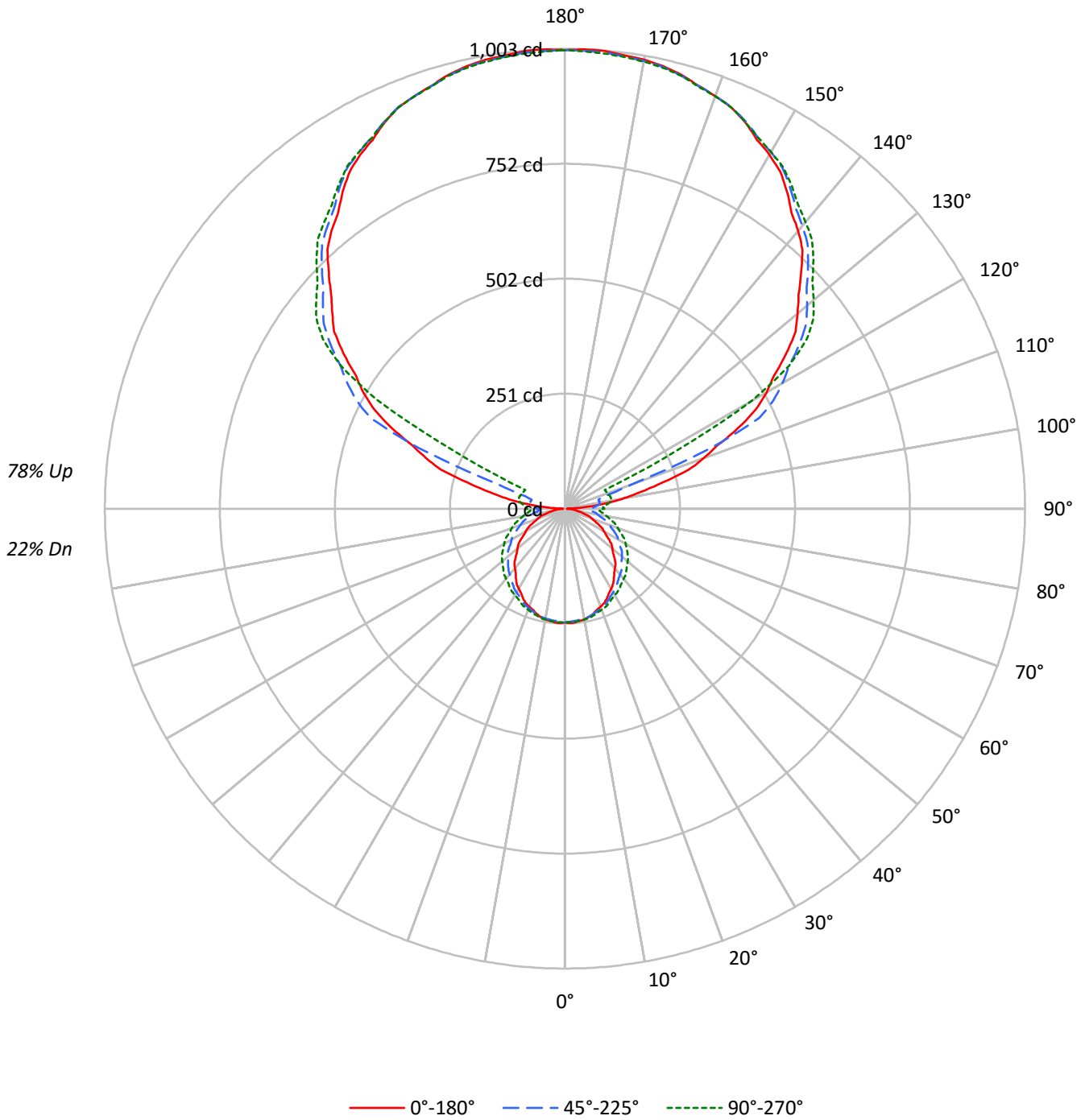
Lumens per Lamp: N/A
Luminaire Lumens: 3879.9 lumens
Efficiency: N/A
Efficacy: 104.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

Input Watts (W): 37.3
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





TEST NUMBER: P331270-927

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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	100	100	100	100	89	89	89	89	68	68	68	48	48	48	30	30	30	22				
1	91	86	82	79	80	77	73	70	58	56	54	41	40	39	26	25	24	17				
2	82	75	69	64	73	66	61	57	50	47	44	36	34	32	22	21	20	14				
3	75	66	58	53	66	58	52	47	44	40	37	31	29	26	19	18	17	11				
4	68	58	50	44	60	51	45	40	39	34	31	28	25	22	17	15	14	9				
5	62	51	43	37	55	45	39	34	35	30	26	25	22	19	15	14	12	8				
6	57	46	38	32	50	41	34	29	31	26	23	22	19	17	14	12	10	7				
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	13	11	9	6				
8	49	37	29	24	43	33	26	22	25	21	17	18	15	13	11	10	8	6				
9	45	34	26	21	40	30	24	19	23	19	15	17	14	11	11	9	7	5				
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	7	4				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4009	4009	4009
5°	4030	3859	3845
10°	4004	3746	3703
15°	3948	3624	3554
20°	3878	3495	3410
25°	3809	3371	3279
30°	3712	3242	3150
35°	3615	3118	3059
40°	3511	3013	2965
45°	3413	2919	2886
50°	3309	2833	2810
55°	3196	2741	2731
60°	3061	2646	2648
65°	2922	2534	2548
70°	2764	2415	2440
75°	2564	2299	2342
80°	2245	2177	2240
85°	1945	2073	2163



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.5	0.6
10°-20°	67.5	1.7
20°-30°	102.2	2.6
30°-40°	124.5	3.2
40°-50°	134.0	3.5
50°-60°	130.1	3.4
60°-70°	113.6	2.9
70°-80°	87.5	2.3
80°-90°	61.2	1.6
90°-100°	73.8	1.9
100°-110°	151.8	3.9
110°-120°	346.4	8.9
120°-130°	550.6	14.2
130°-140°	578.5	14.9
140°-150°	534.3	13.8
150°-160°	428.9	11.1
160°-170°	276.4	7.1
170°-180°	95.1	2.5
0°-30°	193.2	5.0
0°-40°	317.8	8.2
0°-60°	581.9	15.0
0°-90°	844.1	21.8
90°-120°	572.1	14.7
90°-150°	2235.4	57.6
90°-180°	3036.0	78.2
0°-180°	3879.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	248	248	248	248	248	
5°	249	248	246	248	248	24
15°	238	238	238	241	241	67
25°	216	218	222	226	227	99
35°	186	192	199	207	210	116
45°	153	162	175	186	190	118
55°	117	130	149	161	166	105
65°	80	98	119	133	138	79
75°	44	65	88	102	108	47
85°	13	35	58	73	78	14
90°	4	33	62	79	86	5
95°	50	45	70	86	90	60
105°	222	242	75	95	102	237
115°	418	435	468	159	96	411
125°	589	599	624	638	644	525
135°	728	740	750	764	766	562
145°	844	844	856	863	861	528
155°	930	924	932	936	930	428
165°	980	976	978	982	978	277
175°	1002	997	998	1003	996	95
180°	1000	1000	1000	1000	1000	



TEST NUMBER: P331270-927

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	248.3	248.3	248.3	248.3	248.3	248.3	248.3	248.3	248.3	248.3	248.3
2.5°	249.8	249.5	249.4	249.1	249.0	248.7	248.2	247.8	247.3	246.8	247.2
5°	249.1	248.8	248.6	248.3	248.0	247.7	247.2	246.8	246.3	245.8	246.3
7.5°	246.8	246.6	246.4	246.3	246.1	245.9	245.5	245.2	244.8	244.4	245.0
10°	245.1	244.9	244.8	244.6	244.5	244.2	244.0	243.8	243.5	243.3	243.9
12.5°	242.2	242.2	242.2	242.3	242.3	242.2	242.1	241.9	241.7	241.5	242.2
15°	237.5	237.7	237.8	238.0	238.1	238.2	238.2	238.2	238.2	238.2	238.9
17.5°	231.5	231.8	232.1	232.5	232.8	233.1	233.4	233.6	233.9	234.2	234.9
20°	227.4	227.8	228.2	228.6	229.0	229.4	229.7	230.0	230.4	230.7	231.6
22.5°	223.2	223.6	224.0	224.5	225.0	225.5	225.9	226.3	226.8	227.2	228.1
25°	215.9	216.5	217.1	217.6	218.2	218.8	219.5	220.2	220.9	221.7	222.6
27.5°	207.3	208.2	209.1	210.0	211.0	211.8	212.6	213.5	214.4	215.2	216.4
30°	201.5	202.6	203.6	204.6	205.7	206.8	207.8	208.8	209.8	210.9	212.1
32.5°	195.2	196.4	197.5	198.7	199.9	201.1	202.3	203.5	204.8	206.0	207.5
35°	186.1	187.4	188.8	190.1	191.5	192.9	194.5	196.0	197.5	199.0	200.7
37.5°	176.1	177.7	179.3	180.9	182.4	184.2	186.2	188.1	190.0	192.0	194.0
40°	169.5	171.3	173.0	174.8	176.5	178.5	180.6	182.8	185.0	187.1	189.2
42.5°	163.2	164.9	166.7	168.4	170.2	172.3	174.8	177.3	179.7	182.2	184.5
45°	152.6	154.7	156.9	159.1	161.2	163.7	166.5	169.3	172.1	174.9	177.4
47.5°	142.1	144.5	146.9	149.2	151.5	154.4	157.6	160.9	164.2	167.5	170.1
50°	135.0	137.4	139.9	142.4	144.9	147.9	151.5	155.1	158.7	162.3	165.0
52.5°	128.0	130.6	133.2	135.9	138.5	141.6	145.4	149.2	153.0	156.9	159.6
55°	116.9	119.9	122.7	125.6	128.5	132.0	136.2	140.3	144.5	148.6	151.5
57.5°	106.0	109.2	112.5	115.7	119.0	122.7	127.0	131.2	135.5	139.7	142.8
60°	98.2	101.7	105.1	108.5	112.0	116.0	120.6	125.1	129.7	134.2	137.3
62.5°	91.3	94.9	98.5	102.0	105.6	109.6	114.2	118.7	123.3	127.9	131.1
65°	79.9	83.8	87.7	91.7	95.5	99.9	104.6	109.3	114.1	118.7	122.1
67.5°	69.4	73.5	77.6	81.7	85.8	90.2	95.1	99.9	104.7	109.6	112.9
70°	61.9	66.1	70.2	74.4	78.5	83.1	88.0	93.0	98.0	102.9	106.4
72.5°	55.0	59.3	63.5	67.8	72.2	76.8	81.8	86.8	91.9	96.9	100.3
75°	44.3	48.7	53.2	57.7	62.2	66.9	72.1	77.2	82.3	87.5	90.9
77.5°	33.9	38.6	43.3	47.9	52.7	57.6	62.8	68.0	73.2	78.3	81.8
80°	27.0	31.8	36.8	41.6	46.5	51.6	56.7	61.9	67.1	72.3	75.7
82.5°	21.2	26.1	30.9	35.6	40.5	45.6	50.8	56.1	61.3	66.5	69.9
85°	13.0	17.9	22.9	27.8	32.8	37.8	42.9	48.1	53.2	58.3	61.6
87.5°	7.2	12.3	17.4	22.6	27.6	33.0	38.3	43.6	49.0	54.4	57.8
90°	4.4	10.7	17.1	23.5	29.9	36.4	42.8	49.2	55.5	61.9	66.0
92.5°	17.9	22.1	26.2	30.4	34.5	39.5	45.0	50.5	56.2	61.7	65.3
95°	49.9	48.3	46.8	45.2	43.7	45.9	51.8	57.8	63.7	69.6	73.4
97.5°	95.9	84.2	72.6	61.0	49.4	47.2	54.4	61.6	68.8	76.0	79.7
100°	130.6	111.5	92.4	73.4	54.3	48.4	55.6	62.8	70.0	77.2	81.4
102.5°	168.5	166.5	164.5	162.6	160.7	150.4	131.9	113.4	94.9	76.4	81.0
105°	221.7	228.9	236.0	243.2	250.3	234.0	194.3	154.6	114.8	75.1	79.6
107.5°	282.9	288.6	294.4	300.1	305.9	284.4	235.8	187.1	138.5	89.8	90.7
110°	321.9	326.9	331.9	336.8	341.8	323.1	280.5	238.0	195.4	152.9	139.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	359.0	363.3	367.7	372.0	376.4	374.6	366.9	359.1	351.3	343.6	287.5
115°	417.5	421.0	424.7	428.3	431.9	437.5	445.1	452.7	460.3	468.0	395.9
117.5°	469.3	472.9	476.6	480.2	483.9	488.7	494.8	500.9	507.0	513.1	497.4
120°	507.6	510.2	513.0	515.7	518.5	522.8	528.9	535.0	541.1	547.2	551.4
122.5°	540.0	542.6	545.3	548.0	550.6	555.0	561.2	567.4	573.5	579.6	583.0
125°	588.9	591.0	593.1	595.2	597.3	601.1	606.7	612.4	618.0	623.6	626.9
127.5°	633.7	635.9	638.1	640.3	642.5	645.9	650.2	654.6	658.9	663.2	666.9
130°	662.0	664.5	667.0	669.5	671.9	674.9	678.3	681.8	685.3	688.7	692.4
132.5°	690.9	693.1	695.1	697.3	699.3	702.0	705.0	708.1	711.1	714.2	717.6
135°	728.2	730.8	733.3	735.9	738.5	740.9	743.1	745.4	747.7	749.9	753.2
137.5°	766.3	768.0	769.8	771.6	773.4	775.3	777.3	779.3	781.3	783.2	786.3
140°	791.2	792.3	793.5	794.8	796.0	797.6	799.5	801.4	803.4	805.3	807.9
142.5°	812.0	813.0	814.1	815.2	816.3	817.8	819.9	822.0	824.0	826.1	828.5
145°	844.3	844.1	844.0	843.8	843.7	844.9	847.7	850.4	853.2	855.9	857.5
147.5°	872.8	872.2	871.6	871.0	870.4	871.4	874.1	876.9	879.6	882.3	883.1
150°	891.4	890.3	889.1	888.0	886.8	887.6	890.2	892.7	895.3	897.9	898.8
152.5°	907.0	905.7	904.4	903.2	902.0	902.5	905.0	907.4	909.9	912.4	913.3
155°	929.7	928.3	926.8	925.3	923.9	924.2	926.1	928.0	929.9	931.8	932.8
157.5°	947.5	946.3	945.1	943.8	942.6	942.7	944.0	945.4	946.7	948.1	949.2
160°	957.9	957.0	956.0	955.0	954.0	954.0	955.0	956.0	957.0	957.9	958.9
162.5°	967.2	966.2	965.3	964.2	963.3	963.2	964.1	964.9	965.7	966.6	967.7
165°	979.6	978.7	977.7	976.7	975.7	975.5	976.0	976.4	977.0	977.5	978.6
167.5°	988.9	987.9	987.0	986.0	985.0	984.8	985.2	985.6	986.1	986.6	987.7
170°	994.1	993.1	992.1	991.2	990.2	989.9	990.2	990.5	990.9	991.2	992.3
172.5°	997.5	996.6	995.6	994.7	993.7	993.4	993.7	994.0	994.3	994.7	995.8
175°	1002.0	1000.9	999.8	998.6	997.5	997.1	997.4	997.8	998.1	998.4	999.6
177.5°	1002.7	1001.9	1001.0	1000.1	999.2	998.8	998.9	999.0	999.2	999.3	1000.2
180°	999.9	999.9	999.9	999.9	999.9	999.9	999.9	999.9	999.9	999.9	999.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	248.3	248.3	248.3	248.3	248.3	248.3	248.3	248.3
2.5°	247.5	247.8	248.1	248.3	248.1	248.0	247.9	247.7
5°	246.8	247.2	247.7	247.9	247.8	247.7	247.6	247.6
7.5°	245.6	246.1	246.8	247.0	246.9	246.8	246.8	246.7
10°	244.5	245.2	245.8	246.1	246.1	246.0	245.9	245.8
12.5°	242.8	243.4	244.1	244.4	244.3	244.2	244.2	244.1
15°	239.6	240.4	241.1	241.5	241.4	241.3	241.2	241.1
17.5°	235.7	236.4	237.1	237.5	237.5	237.5	237.5	237.5
20°	232.4	233.3	234.2	234.6	234.6	234.6	234.6	234.6
22.5°	229.0	229.9	230.8	231.2	231.4	231.5	231.6	231.8
25°	223.6	224.6	225.5	226.1	226.3	226.6	226.8	227.0
27.5°	217.6	218.9	220.1	220.8	220.9	221.1	221.3	221.5
30°	213.4	214.8	216.0	216.7	217.0	217.2	217.5	217.7
32.5°	208.9	210.4	211.9	212.9	213.3	213.7	214.1	214.5
35°	202.6	204.3	206.0	207.2	207.8	208.3	208.9	209.5
37.5°	195.9	197.9	199.9	201.1	201.7	202.3	202.9	203.4
40°	191.3	193.4	195.4	196.9	197.6	198.3	199.0	199.7
42.5°	186.8	189.0	191.3	192.8	193.5	194.2	195.0	195.7
45°	179.8	182.4	184.8	186.5	187.3	188.1	188.9	189.6
47.5°	172.7	175.2	177.8	179.6	180.5	181.3	182.2	183.1
50°	167.7	170.5	173.2	175.0	175.9	176.7	177.6	178.5
52.5°	162.4	165.2	167.9	169.8	170.8	171.7	172.7	173.6
55°	154.4	157.2	160.2	162.1	163.1	164.2	165.2	166.3
57.5°	145.9	149.0	152.1	154.2	155.3	156.3	157.3	158.4
60°	140.3	143.4	146.4	148.5	149.6	150.7	151.9	153.0
62.5°	134.4	137.6	140.9	143.0	144.0	145.0	146.2	147.2
65°	125.3	128.6	131.9	134.0	135.1	136.1	137.1	138.2
67.5°	116.1	119.5	122.8	125.0	126.0	127.1	128.3	129.4
70°	109.8	113.2	116.7	118.9	119.9	120.8	121.8	122.7
72.5°	103.6	107.0	110.4	112.6	113.8	114.9	116.1	117.2
75°	94.3	97.8	101.2	103.5	104.5	105.5	106.5	107.6
77.5°	85.2	88.6	92.1	94.3	95.5	96.6	97.7	98.8
80°	79.1	82.4	85.8	88.0	89.1	90.2	91.3	92.4
82.5°	73.3	76.7	80.0	82.2	83.3	84.4	85.4	86.4
85°	65.0	68.4	71.8	74.0	75.1	76.2	77.3	78.4
87.5°	61.2	64.7	68.1	70.3	71.5	72.6	73.7	74.7
90°	69.9	74.0	78.0	80.6	81.9	83.2	84.4	85.7
92.5°	68.8	72.3	75.9	78.3	79.4	80.6	81.8	82.9
95°	77.3	81.1	85.0	87.3	88.1	88.9	89.7	90.5
97.5°	83.3	86.9	90.5	92.8	94.0	95.1	96.3	97.4
100°	85.7	90.0	94.2	97.0	98.2	99.3	100.5	101.7
102.5°	85.5	90.1	94.7	97.6	98.9	100.2	101.6	102.9
105°	84.2	88.8	93.3	96.4	97.9	99.4	101.0	102.5
107.5°	91.6	92.4	93.3	94.5	96.1	97.6	99.1	100.6
110°	125.9	112.3	98.8	92.8	94.3	95.9	97.4	98.9



TEST NUMBER: P331270-927

CATALOG NUMBER: SA2XXDIP-C290D925U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	231.4	175.3	119.2	91.9	93.3	94.7	96.1	97.4
115°	323.9	251.8	179.8	138.5	127.8	117.1	106.4	95.7
117.5°	481.8	466.1	450.5	424.1	386.9	349.7	312.4	275.2
120°	555.6	559.8	563.9	555.6	534.7	514.0	493.1	472.3
122.5°	586.3	589.6	593.0	592.9	589.5	586.0	582.6	579.1
125°	630.2	633.4	636.8	639.0	640.2	641.4	642.5	643.8
127.5°	670.5	674.1	677.7	679.9	680.7	681.6	682.4	683.2
130°	696.1	699.8	703.5	705.6	706.1	706.5	707.0	707.5
132.5°	721.0	724.3	727.7	729.6	730.1	730.6	731.0	731.5
135°	756.5	759.8	763.0	764.9	765.2	765.5	765.8	766.1
137.5°	789.3	792.4	795.4	796.9	796.9	796.9	796.9	796.9
140°	810.7	813.4	816.2	817.4	817.1	816.7	816.3	816.0
142.5°	830.8	833.1	835.4	836.5	836.1	835.7	835.3	834.9
145°	859.1	860.7	862.3	862.9	862.5	862.1	861.7	861.3
147.5°	884.0	884.9	885.8	886.1	885.6	885.1	884.6	884.1
150°	899.8	900.8	901.7	901.8	901.0	900.2	899.4	898.6
152.5°	914.3	915.2	916.2	916.2	915.0	914.0	913.0	911.9
155°	933.8	934.8	935.7	935.6	934.3	933.0	931.7	930.4
157.5°	950.2	951.3	952.4	952.4	951.1	949.8	948.6	947.4
160°	959.8	960.8	961.8	961.7	960.5	959.4	958.3	957.2
162.5°	968.8	969.9	971.0	970.8	969.5	968.0	966.7	965.3
165°	979.7	980.8	981.9	981.9	980.8	979.7	978.6	977.5
167.5°	988.8	989.9	991.1	990.9	989.4	988.0	986.6	985.1
170°	993.5	994.6	995.7	995.5	994.1	992.6	991.2	989.8
172.5°	996.9	998.1	999.2	999.0	997.5	996.1	994.7	993.2
175°	1000.7	1001.8	1002.9	1002.7	1001.1	999.5	997.8	996.2
177.5°	1001.1	1002.0	1002.9	1002.7	1001.6	1000.4	999.3	998.1
180°	999.9	999.9	999.9	999.9	999.9	999.9	999.9	999.9

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