

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: P24189

Luminaire Tested: **S901DIP-2L35-D02XXU**

Issue Date: 3/3/2020

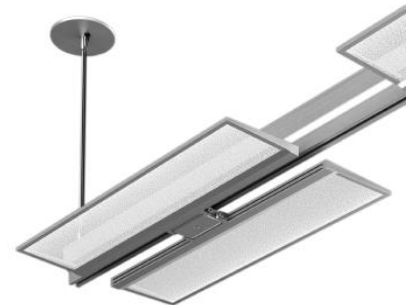
**Test Information**

Test Method: LM-79-08  
Report Number: P24189  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S901DIP-2L35-D02XXU  
Description: NEORAY INDEX SUSPENDED WITH 1 FOOT WING YOKE (UP)  
Light Source: (84) 3500K LEDS  
Ballast/Driver: (1) ADVANCE ELECTRONIC DRIVERS  
LEDINTA2000C24DO

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 692.4 lumens  
Efficiency: N/A  
Efficacy: 77.8 lumens/watt  
Spacing Criteria (0/90/45): 1.6 / 1.98 / 1.91  
Luminous Opening: Rectangular (W 1.21' x L: 0.88' x H: 0')  
CIE Type: General Diffuse

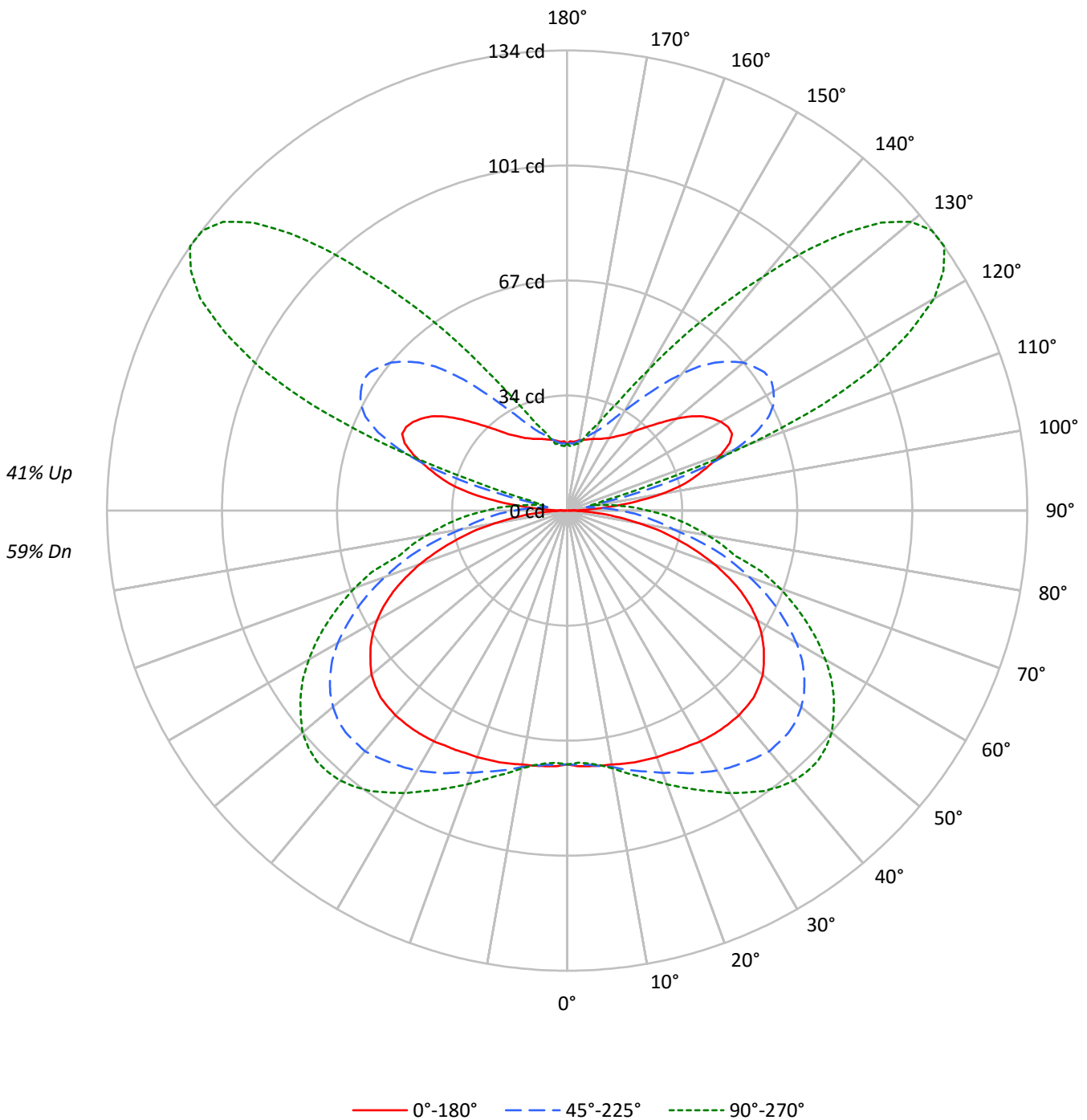
Input Watts (W): 8.9  
Input Voltage (V): 120.00  
Input Current (Ain): 0.07702  
Voltage Rise (V): NR  
Power Factor: 0.963  
Total Harmonic Distortion (THDi):  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: 24 HR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64	59
1	98	93	88	84	91	86	82	78	74	71	68	64	61	59	54	52	50	45
2	88	79	72	66	81	74	67	62	64	59	54	54	50	47	45	43	40	36
3	79	69	60	53	73	64	56	50	55	49	44	47	42	38	39	36	33	29
4	72	60	51	44	66	56	48	42	48	42	37	41	36	32	34	30	27	24
5	66	53	44	37	61	49	41	35	42	36	31	36	31	27	30	26	23	20
6	60	47	38	32	56	44	36	30	38	31	26	32	27	23	27	23	20	17
7	55	42	33	27	51	39	31	26	34	28	23	29	24	20	24	20	17	14
8	51	38	30	24	47	35	28	22	31	24	20	26	21	17	22	18	15	12
9	48	34	26	21	44	32	25	20	28	22	18	24	19	15	20	16	13	11
10	44	31	24	19	41	29	22	18	26	20	16	22	17	14	19	15	12	10

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	752	752	752
5°	763	759	755
10°	776	784	788
15°	800	827	843
20°	828	881	919
25°	864	948	1008
30°	912	1027	1117
35°	968	1114	1239
40°	1034	1216	1365
45°	1107	1315	1486
50°	1178	1410	1593
55°	1241	1496	1683
60°	1303	1570	1769
65°	1347	1626	1855
70°	1357	1679	1959
75°	1330	1758	1986
80°	1261	1841	2439
85°	1098	2710	3820



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	7.1	1.0
10°-20°	22.3	3.2
20°-30°	38.9	5.6
30°-40°	56.1	8.1
40°-50°	70.0	10.1
50°-60°	74.4	10.7
60°-70°	66.1	9.6
70°-80°	46.3	6.7
80°-90°	24.7	3.6
90°-100°	13.2	1.9
100°-110°	29.4	4.2
110°-120°	68.8	9.9
120°-130°	72.7	10.5
130°-140°	52.3	7.6
140°-150°	28.2	4.1
150°-160°	13.5	2.0
160°-170°	6.4	0.9
170°-180°	1.9	0.3
0°-30°	68.3	9.9
0°-40°	124.5	18.0
0°-60°	268.8	38.8
0°-90°	406.0	58.6
90°-120°	111.4	16.1
90°-150°	264.5	38.2
90°-180°	286.0	41.3
0°-180°	692.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	74	74	74	74	74	
5°	75	74	74	74	74	7
15°	76	77	78	80	80	22
25°	77	79	84	89	90	36
35°	78	82	90	98	100	49
45°	77	81	91	101	103	59
55°	70	73	84	94	95	62
65°	56	58	68	76	77	55
75°	34	37	45	50	50	36
85°	9	14	23	31	33	10
90°	0	9	15	21	24	1
95°	12	7	9	14	16	13
105°	39	33	27	15	11	41
115°	53	51	65	93	99	51
125°	48	53	70	115	134	43
135°	35	43	61	93	114	28
145°	27	30	42	58	66	17
155°	23	24	28	33	35	11
165°	21	22	22	23	23	6
175°	20	20	20	19	19	2
180°	19	19	19	19	19	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9
2.5°	74.5	74.2	74.3	74.5	74.3	74.0	74.3	74.1	74.3	74.1	74.2
5°	74.7	74.4	74.4	74.7	74.6	74.2	74.6	74.5	74.6	74.3	74.4
7.5°	74.9	74.7	74.8	75.0	75.0	74.7	75.1	74.9	75.3	75.1	75.2
10°	75.1	74.8	75.0	75.2	75.2	75.1	75.6	75.6	75.8	75.8	76.2
12.5°	75.5	75.2	75.5	75.7	75.9	75.9	76.5	76.5	77.0	77.2	77.6
15°	75.9	75.8	76.0	76.4	76.6	76.6	77.4	77.6	78.2	78.5	79.0
17.5°	76.1	75.8	76.3	76.7	77.0	77.2	78.2	78.4	79.3	79.7	80.3
20°	76.4	76.3	76.6	77.3	77.5	78.0	79.1	79.5	80.6	81.3	82.1
22.5°	76.5	76.4	76.8	77.5	78.0	78.6	79.9	80.5	81.8	82.5	83.9
25°	76.9	76.9	77.3	78.1	78.9	79.4	81.0	81.8	83.3	84.4	85.6
27.5°	77.1	77.2	77.8	78.6	79.4	80.3	82.0	82.9	84.8	85.9	87.3
30°	77.6	77.4	78.2	79.1	80.0	81.1	82.9	84.1	86.0	87.4	88.9
32.5°	77.8	77.6	78.4	79.5	80.5	81.6	83.8	85.0	87.0	88.6	90.5
35°	77.9	77.8	78.5	79.7	81.0	82.2	84.4	85.6	88.1	89.6	91.9
37.5°	77.9	77.7	78.6	79.7	81.0	82.5	84.7	86.1	88.4	90.6	93.0
40°	77.8	77.9	78.5	79.8	81.0	82.6	84.9	86.4	89.1	91.5	93.8
42.5°	77.4	77.3	78.2	79.3	80.5	82.0	84.5	86.0	89.1	91.4	94.1
45°	76.9	76.7	77.5	78.5	80.0	81.4	83.9	85.7	88.8	91.3	94.1
47.5°	75.7	75.7	76.4	77.5	78.8	80.3	82.7	84.7	87.9	90.5	93.3
50°	74.4	74.3	74.9	75.9	77.2	78.6	81.3	83.2	86.4	89.0	91.9
52.5°	72.2	72.2	73.0	73.9	75.0	76.4	79.1	81.1	84.3	87.0	89.7
55°	69.9	70.0	70.5	71.5	72.5	74.1	76.5	78.5	81.8	84.3	87.0
57.5°	67.2	67.3	67.6	68.5	69.5	71.0	73.4	75.3	78.7	81.1	83.6
60°	64.0	64.0	64.2	65.0	65.9	67.6	70.0	71.7	74.8	77.1	79.5
62.5°	60.2	60.1	60.5	61.1	62.0	63.6	65.8	67.6	70.6	72.4	74.9
65°	55.9	55.7	56.2	56.9	57.7	59.3	61.4	63.0	65.7	67.5	69.7
67.5°	50.9	50.9	51.1	52.0	52.8	54.6	56.2	57.8	60.3	62.2	64.3
70°	45.6	45.8	45.9	46.7	47.7	49.2	51.0	52.2	54.6	56.4	58.7
72.5°	39.8	40.2	40.6	41.4	42.2	43.8	45.1	46.6	49.0	50.7	52.7
75°	33.8	34.0	34.6	35.6	36.3	37.8	39.2	40.5	42.8	44.7	46.6
77.5°	28.1	28.1	28.5	29.6	30.8	31.8	33.3	34.7	36.9	37.8	38.7
80°	21.5	21.9	22.5	23.4	24.5	25.9	26.9	27.9	29.4	31.4	33.7
82.5°	15.1	15.8	16.6	17.7	18.4	19.1	20.9	22.6	25.2	27.2	29.1
85°	9.4	10.2	10.8	11.8	13.0	14.9	17.1	19.2	21.2	23.2	25.3
87.5°	4.2	4.9	5.6	7.6	10.2	12.4	14.0	15.6	17.5	19.5	21.0
90°	0.2	1.7	4.8	7.3	8.7	9.8	11.0	11.9	13.8	15.2	16.9
92.5°	5.2	5.5	6.4	7.6	7.9	8.0	8.5	9.3	10.4	12.2	13.7
95°	12.5	12.9	12.3	10.3	7.8	6.5	6.3	6.7	7.7	9.3	10.3
97.5°	20.2	20.5	19.1	16.3	12.3	8.3	5.8	5.0	5.5	6.6	7.5
100°	28.0	27.9	25.6	22.6	19.9	17.0	11.0	7.3	6.0	5.8	6.0
102.5°	34.4	34.2	32.1	29.6	27.1	25.1	22.6	18.3	13.9	10.6	9.1
105°	38.9	39.3	38.8	36.4	33.3	32.2	31.2	29.7	29.3	26.8	23.9
107.5°	43.2	44.0	44.3	41.8	39.3	38.4	38.6	38.0	40.1	41.3	43.0
110°	47.7	47.9	47.9	46.7	44.6	43.6	44.5	44.8	48.1	51.9	56.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	51.2	50.3	50.3	50.5	48.2	48.0	48.7	49.8	53.8	59.6	65.7
115°	53.0	51.8	52.4	52.7	51.4	51.4	52.3	54.1	57.7	64.8	73.0
117.5°	52.8	52.7	52.9	53.7	53.0	53.7	54.4	57.2	60.7	67.9	77.5
120°	51.7	52.6	52.1	54.0	53.4	54.9	55.9	59.3	62.9	69.4	78.9
122.5°	50.0	50.7	50.7	52.7	53.2	54.9	56.4	59.5	63.9	70.5	79.4
125°	47.9	48.2	48.8	50.8	52.1	54.2	56.5	59.5	63.6	70.2	78.7
127.5°	45.0	44.9	45.8	48.2	50.1	52.2	55.4	58.8	62.9	68.7	76.5
130°	41.7	41.6	42.6	45.2	47.8	50.3	53.2	57.2	61.3	67.0	73.9
132.5°	38.3	38.4	39.4	42.0	44.6	47.6	50.7	54.4	58.7	64.2	70.6
135°	35.1	35.3	36.2	38.5	41.4	44.3	47.7	51.6	55.8	60.9	66.6
137.5°	32.5	32.5	33.4	35.2	37.9	40.9	44.3	48.0	52.1	56.9	62.0
140°	30.1	30.3	30.9	32.5	34.6	37.1	40.2	43.7	47.5	51.9	56.5
142.5°	28.0	28.2	28.8	30.2	31.9	34.1	36.7	39.7	42.9	46.9	50.9
145°	26.7	26.7	27.3	28.4	29.7	31.3	33.4	36.0	38.6	41.8	45.4
147.5°	25.4	25.5	25.9	26.6	27.7	29.1	30.7	32.7	34.5	37.4	40.1
150°	24.4	24.4	24.7	25.4	26.3	27.2	28.4	30.0	31.6	33.6	35.8
152.5°	23.7	23.6	23.8	24.4	25.0	25.8	26.8	27.8	29.0	30.6	32.0
155°	23.0	22.9	23.1	23.6	24.0	24.5	25.1	26.0	27.0	27.9	29.1
157.5°	22.6	22.4	22.5	22.8	23.1	23.6	23.9	24.7	25.2	26.0	26.7
160°	22.2	22.0	22.2	22.4	22.7	22.9	23.2	23.6	24.1	24.4	25.1
162.5°	21.8	21.6	21.8	21.9	22.1	22.2	22.4	22.7	23.1	23.4	23.6
165°	21.4	21.2	21.3	21.5	21.5	21.7	21.6	21.8	22.1	22.2	22.6
167.5°	21.1	21.0	21.0	21.1	21.1	21.3	21.2	21.2	21.3	21.4	21.5
170°	20.8	20.8	20.7	20.9	20.8	20.8	20.8	20.8	20.6	20.6	20.8
172.5°	20.4	20.5	20.6	20.6	20.5	20.4	20.3	20.3	20.2	20.1	20.3
175°	20.1	20.1	20.1	20.2	20.1	20.2	20.0	19.9	19.7	19.6	19.6
177.5°	20.2	20.1	20.1	20.2	20.2	20.1	20.0	19.8	19.7	19.6	19.6
180°	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9
2.5°	74.2	74.0	73.9	73.9	73.6	73.4	73.8	73.5
5°	74.4	74.3	74.3	74.4	73.9	73.8	74.1	73.9
7.5°	75.2	75.1	75.0	75.2	74.9	74.7	75.1	74.8
10°	76.2	76.4	76.5	76.6	76.4	76.2	76.5	76.2
12.5°	77.7	78.0	78.1	78.3	78.1	78.0	78.5	78.2
15°	79.2	79.7	79.9	80.3	80.1	79.9	80.5	80.0
17.5°	80.9	81.5	81.8	82.2	82.2	82.0	82.7	82.3
20°	82.7	83.6	84.1	84.5	84.7	84.5	85.0	84.8
22.5°	84.6	85.4	86.0	86.7	87.0	86.8	87.5	87.2
25°	86.6	87.6	88.3	89.1	89.4	89.3	90.1	89.7
27.5°	88.5	89.6	90.6	91.5	91.9	91.8	92.5	92.2
30°	90.2	91.7	92.7	94.0	94.5	94.5	95.4	95.0
32.5°	92.0	93.8	95.0	96.2	96.9	97.0	97.7	97.3
35°	93.9	95.5	96.9	98.3	99.0	99.2	100.2	99.7
37.5°	94.9	97.0	98.6	100.0	100.8	101.0	101.7	101.4
40°	96.1	98.3	99.9	101.2	102.0	102.4	103.3	102.7
42.5°	96.4	98.6	100.4	101.9	102.6	102.8	103.7	103.2
45°	96.5	98.8	100.5	101.7	102.8	102.9	103.8	103.2
47.5°	95.8	97.8	99.7	100.9	101.8	102.3	102.9	102.2
50°	94.3	96.5	98.2	99.4	100.3	100.6	101.4	100.6
52.5°	92.1	94.2	96.0	97.1	98.0	98.3	98.9	97.8
55°	89.3	91.4	93.1	94.0	95.0	95.1	95.7	94.8
57.5°	85.8	87.7	89.4	90.2	91.2	91.5	92.0	91.2
60°	81.6	83.5	85.1	86.1	86.7	87.1	87.6	86.9
62.5°	76.9	78.6	80.3	81.3	82.1	82.3	82.7	82.2
65°	71.7	73.5	75.1	76.0	76.9	77.3	77.7	77.0
67.5°	66.1	68.1	69.4	70.5	71.2	71.8	72.1	71.5
70°	60.5	62.2	63.6	64.7	65.5	66.0	66.5	65.8
72.5°	54.5	56.5	57.9	58.7	59.3	59.8	59.7	59.7
75°	48.1	49.1	49.3	49.8	50.3	51.0	50.9	50.5
77.5°	40.3	41.9	43.5	44.7	45.3	46.1	46.5	46.3
80°	35.7	37.6	38.9	39.9	41.1	41.5	41.7	41.6
82.5°	31.2	32.9	34.3	35.6	36.2	37.1	37.2	37.1
85°	27.2	29.0	30.1	31.0	32.0	32.4	32.7	32.7
87.5°	22.7	24.3	25.5	26.8	27.3	28.0	28.3	28.2
90°	18.5	19.9	21.1	21.8	22.7	23.0	23.2	23.5
92.5°	14.8	16.1	17.4	18.2	18.5	19.2	19.5	19.7
95°	11.4	12.6	13.6	14.7	15.0	15.7	15.6	15.7
97.5°	8.6	9.7	10.5	11.2	11.9	12.2	12.2	12.3
100°	6.5	7.2	7.6	8.3	8.8	9.0	9.0	9.3
102.5°	7.9	7.3	6.8	6.9	6.9	7.1	7.1	7.1
105°	20.4	18.1	15.4	13.7	11.9	11.2	10.9	10.9
107.5°	42.6	40.7	36.3	34.0	31.2	29.2	29.4	29.1
110°	59.3	61.3	60.7	60.3	58.3	57.6	56.9	56.4





TEST NUMBER: P24189

CATALOG NUMBER: S901DIP-2L35-D02XXU

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	71.3	75.9	78.0	79.9	78.8	79.9	80.4	80.3
115°	80.8	87.8	91.9	94.6	95.8	96.7	98.3	98.8
117.5°	86.9	95.8	101.2	105.4	107.9	110.1	111.2	112.3
120°	89.4	99.8	107.4	114.2	116.7	120.5	122.1	123.3
122.5°	90.3	101.9	111.2	117.8	122.8	126.7	128.4	129.9
125°	89.1	100.7	110.8	119.8	124.8	129.9	132.4	134.1
127.5°	86.1	97.9	108.5	117.5	123.9	129.7	132.1	133.9
130°	82.7	93.2	103.4	113.0	119.8	125.7	128.9	130.8
132.5°	78.1	87.7	96.8	106.0	113.2	118.9	121.9	124.1
135°	73.2	81.1	89.1	96.9	103.7	109.4	112.1	114.2
137.5°	67.5	74.4	80.6	87.3	93.1	97.9	100.5	102.2
140°	61.4	67.3	72.5	77.6	82.0	85.9	87.5	89.1
142.5°	54.8	59.9	64.0	68.1	71.6	74.4	76.1	77.1
145°	48.6	52.6	56.0	59.3	61.9	64.2	65.1	66.2
147.5°	42.6	45.9	48.6	50.9	52.8	54.7	55.4	56.1
150°	37.6	40.3	42.0	43.7	45.3	46.3	46.5	47.1
152.5°	33.6	35.2	36.6	37.9	38.7	39.5	40.0	40.3
155°	29.8	31.4	32.4	32.9	33.7	34.4	34.3	34.6
157.5°	27.6	28.5	29.0	29.6	29.8	30.3	30.5	30.8
160°	25.6	26.1	26.5	26.8	27.1	27.2	27.1	27.2
162.5°	23.9	24.4	24.6	24.8	24.6	24.8	24.9	25.1
165°	22.8	22.9	22.6	22.9	22.9	23.1	23.0	23.2
167.5°	21.3	21.6	21.6	21.3	20.9	21.0	20.9	21.1
170°	20.8	20.7	20.7	20.7	20.4	20.0	19.9	19.7
172.5°	20.1	20.0	19.9	20.0	19.8	19.7	19.6	19.6
175°	19.5	19.6	19.4	19.2	19.0	19.0	18.8	19.0
177.5°	19.5	19.4	19.2	19.1	18.9	18.9	18.7	18.8
180°	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4

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