

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: P24190

Luminaire Tested: **S901DIP-2L35-D02XXF**

Issue Date: 3/3/2020

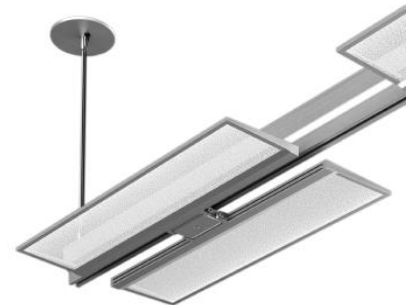
Test Information

Test Method: LM-79-08
Report Number: P24190
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S901DIP-2L35-D02XXF
Description: NEORAY INDEX SUSPENDED WITH 1 FOOT WING YOKE (FLAT)
Light Source: (84) 3500K LEDS
Ballast/Driver: (1) ADVANCE ELECTRONIC DRIVERS
LEDINTA2000C24DO

Summary

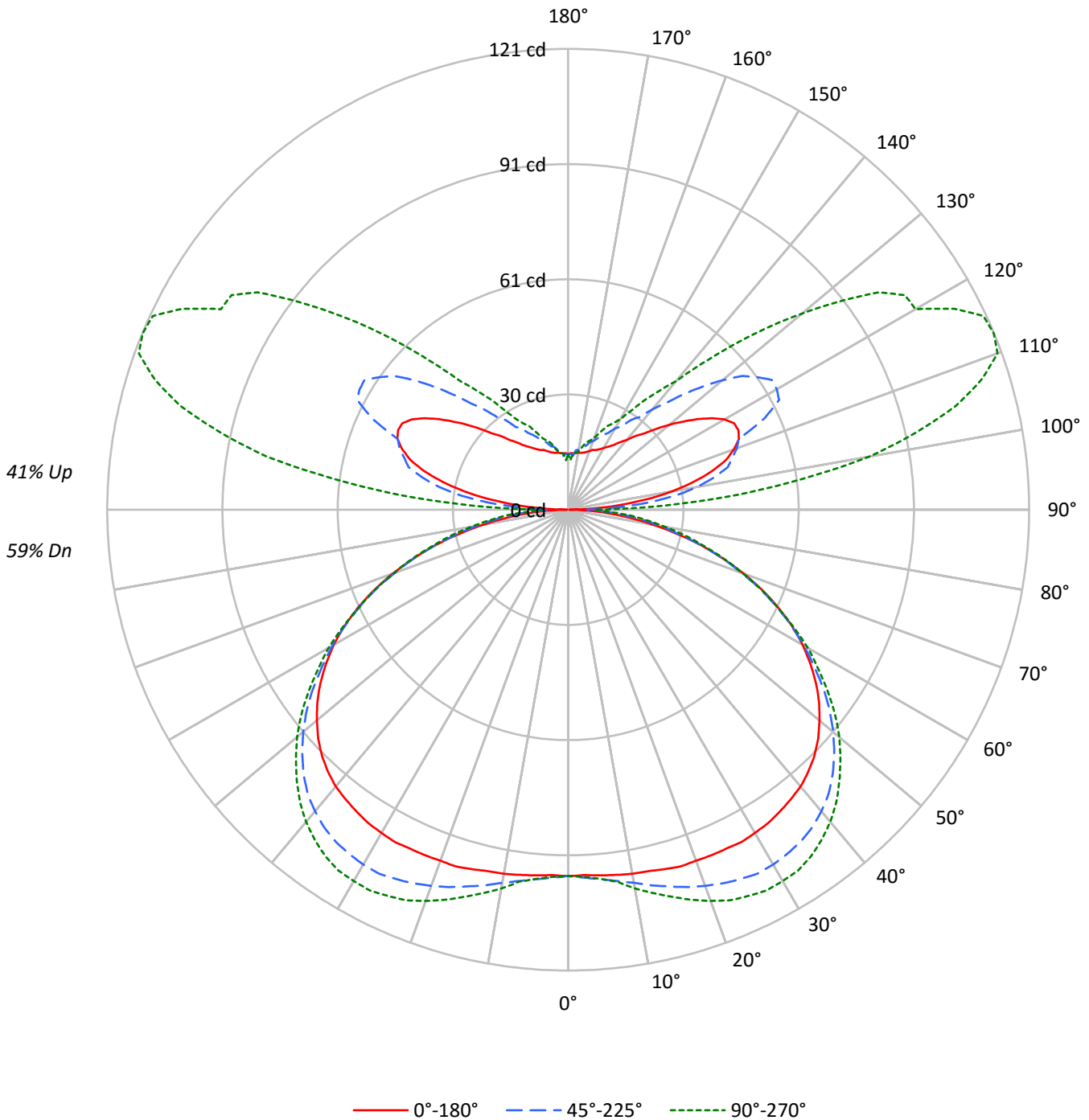
Lumens per Lamp: N/A
Luminaire Lumens: 699.1 lumens
Efficiency: N/A
Efficacy: 78.6 lumens/watt
Spacing Criteria (0/90/45): 1.53 / 1.68 / 1.69
Luminous Opening: Rectangular (W 1.21' x L: 0.88' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 8.9
Input Voltage (V): 120.00
Input Current (Ain): 0.07703
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	99	94	90	86	92	88	84	81	76	73	71	65	63	61	55	54	52	48
2	89	81	74	69	83	76	70	65	66	61	57	56	53	50	48	45	43	39
3	81	71	63	56	75	66	59	53	57	52	47	49	45	41	42	38	36	32
4	74	62	53	47	68	58	50	44	50	44	39	43	38	35	37	33	30	26
5	67	55	46	40	62	51	43	38	45	38	34	38	33	30	33	29	26	22
6	62	49	40	34	57	46	38	32	40	34	29	34	29	25	29	25	22	19
7	57	44	36	30	53	41	34	28	36	30	25	31	26	22	27	22	19	17
8	53	40	32	26	49	37	30	25	33	27	22	28	23	20	24	20	17	15
9	49	36	28	23	46	34	27	22	30	24	20	26	21	17	22	18	15	13
10	46	33	25	20	43	31	24	19	27	22	18	24	19	16	21	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	979	979	979
5°	985	995	994
10°	1004	1029	1044
15°	1030	1079	1109
20°	1063	1139	1184
25°	1103	1202	1257
30°	1152	1265	1324
35°	1203	1322	1381
40°	1261	1374	1422
45°	1316	1414	1450
50°	1364	1438	1471
55°	1409	1450	1477
60°	1448	1456	1480
65°	1467	1455	1460
70°	1459	1438	1450
75°	1420	1424	1451
80°	1319	1431	1507
85°	1180	1600	1822



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	9.3	1.3
10°-20°	29.0	4.1
20°-30°	49.0	7.0
30°-40°	65.8	9.4
40°-50°	74.8	10.7
50°-60°	72.7	10.4
60°-70°	59.7	8.5
70°-80°	38.3	5.5
80°-90°	14.7	2.1
90°-100°	27.3	3.9
100°-110°	61.6	8.8
110°-120°	69.7	10.0
120°-130°	58.2	8.3
130°-140°	34.6	5.0
140°-150°	18.1	2.6
150°-160°	9.9	1.4
160°-170°	5.0	0.7
170°-180°	1.5	0.2
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0°-30°	87.3	12.5
0°-40°	153.1	21.9
0°-60°	300.6	43.0
0°-90°	413.3	59.1
90°-120°	158.6	22.7
90°-150°	269.5	38.6
90°-180°	286.0	40.9
0°-180°	699.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	96	96	96	96	96	
5°	96	96	97	98	97	9
15°	98	99	102	104	105	28
25°	98	101	107	111	112	45
35°	97	100	106	110	111	61
45°	91	93	98	100	101	70
55°	79	79	82	83	83	71
65°	61	59	60	61	61	60
75°	36	36	36	37	37	38
85°	10	12	14	15	16	11
90°	0	3	5	6	7	1
95°	13	13	21	39	44	14
105°	39	34	43	88	105	40
115°	49	51	57	93	120	48
125°	41	48	61	84	100	37
135°	28	33	43	54	61	22
145°	21	24	29	33	35	13
155°	17	19	22	23	24	8
165°	16	16	17	18	18	4
175°	15	15	14	15	15	1
180°	14	14	14	14	14	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2
2.5°	96.0	95.8	96.1	96.1	95.8	96.1	96.6	96.4	96.4	96.7	96.3
5°	96.4	96.3	96.5	96.6	96.3	96.6	97.2	97.0	97.0	97.4	97.0
7.5°	96.7	96.6	97.0	96.9	96.8	97.1	97.8	97.8	97.9	98.3	98.1
10°	97.1	97.0	97.3	97.4	97.5	98.0	98.9	98.8	99.0	99.5	99.4
12.5°	97.2	97.3	97.8	97.9	97.9	98.6	99.5	99.6	100.1	101.0	100.9
15°	97.7	97.8	98.2	98.6	98.6	99.3	100.4	101.0	101.4	102.4	102.5
17.5°	98.2	98.2	98.8	99.2	99.2	100.2	101.4	101.9	102.7	103.9	104.3
20°	98.1	98.2	99.0	99.4	99.6	100.7	102.2	102.9	103.6	105.1	105.7
22.5°	98.2	98.3	99.1	99.5	100.0	101.1	102.8	103.5	104.8	106.2	106.7
25°	98.2	98.5	99.2	99.7	100.2	101.5	103.2	104.3	105.5	107.0	107.7
27.5°	98.4	98.4	99.4	99.9	100.5	101.7	103.6	104.7	106.1	107.7	108.3
30°	98.0	98.2	99.1	99.6	100.2	101.5	103.6	104.6	106.0	107.6	108.1
32.5°	97.6	97.8	98.6	99.1	99.8	101.2	103.1	104.2	105.7	107.1	107.8
35°	96.8	97.1	98.0	98.5	99.1	100.5	102.3	103.6	104.8	106.4	107.2
37.5°	95.9	96.2	97.0	97.5	98.1	99.4	101.1	102.3	103.6	105.2	105.9
40°	94.9	95.1	95.8	96.4	96.8	97.9	99.6	100.6	102.0	103.4	104.0
42.5°	93.3	93.6	94.3	94.7	95.1	96.0	97.5	98.6	99.9	101.2	101.6
45°	91.4	91.7	92.2	92.5	92.8	93.6	95.0	96.0	97.0	98.2	98.5
47.5°	89.0	89.4	89.8	90.0	90.1	90.7	92.1	92.8	93.8	94.7	95.1
50°	86.1	86.4	87.0	87.0	86.7	87.3	88.6	89.1	90.0	90.8	90.9
52.5°	83.0	83.3	83.5	83.4	83.1	83.6	84.6	85.1	85.7	86.5	86.7
55°	79.4	79.6	79.8	79.6	79.1	79.4	80.1	80.5	81.0	81.7	81.9
57.5°	75.4	75.4	75.6	75.0	74.7	74.8	75.3	75.5	76.0	76.5	76.8
60°	71.1	71.0	71.1	70.5	70.1	70.0	70.5	70.6	70.9	71.5	71.8
62.5°	66.2	66.0	66.2	65.6	64.9	64.9	64.9	65.0	65.6	66.1	66.2
65°	60.9	60.7	60.7	60.2	59.5	59.3	59.3	59.5	59.7	60.4	60.6
67.5°	55.1	54.9	54.8	54.5	53.8	53.3	53.5	53.6	54.2	54.7	54.5
70°	49.0	48.9	48.7	48.4	47.9	47.3	47.6	47.8	48.2	48.3	48.3
72.5°	42.6	42.6	42.4	42.0	41.7	41.5	41.4	41.9	41.9	42.4	42.4
75°	36.1	36.2	36.2	35.5	35.4	35.6	35.6	35.6	35.9	36.2	36.1
77.5°	29.2	29.4	29.6	29.0	28.9	29.4	29.4	29.3	29.8	29.9	30.2
80°	22.5	22.9	23.1	22.8	22.9	23.2	23.5	23.6	23.9	24.4	24.6
82.5°	16.2	16.4	16.8	16.9	17.1	17.4	17.7	18.1	18.3	19.0	19.1
85°	10.1	10.3	10.9	11.0	11.4	11.8	12.3	12.7	13.0	13.7	13.8
87.5°	4.5	4.9	5.4	5.7	6.4	6.8	7.1	7.7	7.9	8.4	8.3
90°	0.3	0.7	1.2	1.7	2.4	3.0	3.6	4.1	4.6	5.0	5.5
92.5°	5.1	5.4	5.8	6.2	6.2	6.7	7.7	8.7	9.5	11.6	13.9
95°	13.2	13.6	13.7	13.4	12.8	12.4	13.3	14.9	16.7	20.8	25.4
97.5°	20.6	21.1	20.6	19.9	18.4	18.1	19.1	20.3	23.4	28.4	35.3
100°	27.6	28.1	26.8	25.5	23.7	23.2	24.1	24.9	29.3	34.3	43.1
102.5°	33.7	34.2	32.5	30.8	29.0	28.0	27.9	29.1	33.7	39.3	48.0
105°	39.1	39.3	37.9	36.4	35.5	32.5	31.1	33.3	36.5	43.4	52.4
107.5°	43.4	43.6	42.7	41.7	41.3	39.4	36.2	36.2	39.8	45.1	54.9
110°	46.3	46.4	46.4	45.9	45.5	44.1	44.9	40.6	42.2	47.1	55.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	48.5	48.6	49.4	49.4	48.3	48.7	49.4	49.9	48.6	48.4	56.4
115°	49.3	49.4	50.7	50.9	50.3	51.6	52.2	54.2	56.6	56.9	56.1
117.5°	49.1	49.1	50.8	51.2	51.8	52.4	54.7	55.8	59.4	62.4	66.6
120°	47.4	47.6	49.4	50.3	51.6	52.3	54.6	57.3	60.5	63.2	67.7
122.5°	44.7	45.1	46.9	48.4	49.6	51.7	53.5	55.9	60.2	63.4	68.1
125°	41.4	42.0	43.5	45.5	46.8	48.8	51.8	54.1	57.7	60.6	65.2
127.5°	38.0	38.8	39.9	42.0	44.1	45.7	48.1	51.0	54.8	57.7	61.8
130°	34.7	35.1	36.3	38.0	40.2	42.4	44.4	46.7	50.1	52.9	57.1
132.5°	31.4	31.9	33.0	34.3	36.1	38.1	40.3	42.6	45.8	47.8	50.9
135°	28.4	28.9	29.9	31.0	32.4	34.2	35.9	37.8	40.4	42.8	45.8
137.5°	26.3	26.5	27.5	28.6	30.1	31.6	33.2	34.8	36.8	37.9	40.1
140°	23.9	24.1	24.9	25.9	27.0	28.3	29.6	30.7	32.8	34.4	35.7
142.5°	22.3	22.7	23.0	24.0	24.9	26.1	27.5	28.9	30.4	30.6	32.6
145°	20.7	21.1	21.6	22.4	23.3	24.6	25.5	26.0	27.5	28.8	29.1
147.5°	19.6	19.7	20.5	21.2	22.0	22.5	23.3	24.5	25.7	25.8	27.6
150°	18.7	19.0	19.6	20.1	20.4	21.1	22.4	22.7	23.7	24.7	24.7
152.5°	17.9	18.4	18.9	18.8	19.6	20.6	20.8	21.5	22.6	22.7	23.6
155°	17.3	17.8	18.1	18.1	19.0	19.3	20.0	20.6	21.0	21.6	22.0
157.5°	17.0	17.3	17.3	17.8	18.4	18.4	19.5	19.2	20.4	20.3	20.5
160°	16.4	16.9	16.5	17.4	17.2	18.1	17.9	18.9	18.8	19.2	19.8
162.5°	15.9	16.6	16.3	16.9	16.8	17.1	17.8	17.4	18.5	18.4	18.2
165°	15.5	16.1	16.2	16.2	16.6	16.4	16.9	17.3	17.1	17.2	17.9
167.5°	15.3	15.9	16.1	15.9	16.1	16.5	16.3	16.3	17.1	16.9	16.6
170°	15.2	15.6	16.0	15.8	15.6	15.8	16.3	16.1	15.9	15.9	16.1
172.5°	15.0	15.2	15.6	15.7	15.4	15.3	15.4	15.6	16.0	15.8	15.6
175°	14.8	14.9	15.0	15.2	15.3	15.1	14.8	14.4	14.4	14.2	14.4
177.5°	14.9	14.9	14.9	15.0	15.1	15.2	15.2	15.0	15.0	14.7	14.5
180°	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2
2.5°	97.1	96.8	96.8	96.8	97.0	96.9	96.9	96.5
5°	97.8	97.7	97.6	97.5	97.8	97.7	97.7	97.3
7.5°	98.8	98.7	98.6	98.7	98.9	98.9	98.9	98.5
10°	100.5	100.5	100.7	100.9	101.1	101.2	101.2	101.0
12.5°	102.1	102.3	102.4	102.7	103.1	103.2	103.3	103.1
15°	103.8	104.1	104.3	104.7	105.3	105.4	105.6	105.2
17.5°	105.7	106.3	106.5	106.9	107.3	107.6	107.7	107.4
20°	107.2	107.8	108.1	108.6	109.2	109.4	109.6	109.3
22.5°	108.5	109.1	109.6	110.1	110.8	111.1	111.2	111.0
25°	109.5	110.1	110.5	111.0	111.5	111.9	112.2	111.9
27.5°	110.0	110.7	111.1	111.8	112.4	112.8	112.9	112.7
30°	110.0	110.8	111.4	111.7	112.4	112.7	113.0	112.6
32.5°	109.8	110.5	110.8	111.5	112.0	112.3	112.5	112.3
35°	108.9	109.7	110.1	110.5	110.9	111.1	111.3	111.1
37.5°	107.5	108.2	108.4	108.7	109.2	109.5	109.5	109.3
40°	105.5	105.9	106.3	106.4	106.8	107.1	107.2	107.0
42.5°	102.9	103.5	103.6	103.8	104.0	104.3	104.4	104.2
45°	99.8	100.1	100.2	100.4	100.7	100.8	100.9	100.7
47.5°	96.2	96.4	96.6	96.5	96.9	97.1	97.1	96.9
50°	92.0	92.5	92.4	92.4	92.7	93.0	93.0	92.9
52.5°	87.5	88.0	87.8	88.1	88.1	88.3	88.4	88.3
55°	82.8	83.0	83.1	83.1	83.5	83.4	83.4	83.2
57.5°	77.7	78.1	77.8	77.8	78.0	78.2	78.0	77.8
60°	72.6	72.7	72.6	72.7	72.6	72.9	72.9	72.7
62.5°	67.0	67.1	67.0	66.8	66.9	66.9	66.7	66.6
65°	61.2	61.0	60.7	60.7	60.6	61.0	60.7	60.6
67.5°	54.8	54.9	55.0	54.7	54.8	54.9	54.9	54.9
70°	48.9	49.0	48.7	48.6	48.8	49.0	48.7	48.7
72.5°	42.9	42.9	42.7	42.8	42.7	42.9	43.1	42.9
75°	36.7	36.8	36.6	36.8	37.0	37.2	36.9	36.9
77.5°	30.8	31.1	30.9	30.9	31.2	31.1	31.3	31.5
80°	25.2	25.3	25.3	25.6	25.4	26.0	25.8	25.7
82.5°	19.5	19.8	19.9	20.2	20.4	20.9	20.4	20.5
85°	14.3	14.7	14.7	14.9	15.5	15.5	15.4	15.6
87.5°	8.8	8.9	8.8	8.8	9.0	9.1	8.9	9.2
90°	5.9	6.1	6.3	6.6	6.8	6.7	6.8	6.9
92.5°	16.5	18.9	20.5	23.1	24.3	24.7	25.4	25.3
95°	29.6	33.8	36.9	40.7	42.9	44.1	44.4	44.3
97.5°	41.5	47.6	52.3	57.2	59.0	62.0	62.6	62.1
100°	51.6	59.7	65.9	70.8	74.9	77.0	79.3	80.4
102.5°	58.0	68.1	75.7	82.6	88.5	90.5	92.4	93.4
105°	62.5	74.1	84.1	92.4	97.5	102.2	104.7	105.4
107.5°	66.0	78.8	89.1	97.8	106.4	109.3	112.8	113.8
110°	65.3	78.3	90.9	101.9	109.1	115.2	119.2	119.9



TEST NUMBER: P24190

CATALOG NUMBER: S901DIP-2L35-D02XXF

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	66.1	78.4	90.0	100.7	111.0	116.2	120.1	120.9
115°	63.3	74.7	87.2	97.9	107.4	113.7	119.1	120.3
117.5°	69.0	72.0	81.6	92.7	101.6	109.5	113.5	114.2
120°	72.3	79.1	84.7	88.1	94.8	99.8	104.1	105.3
122.5°	72.5	78.4	84.6	91.0	96.6	100.4	103.9	104.8
125°	70.2	76.3	80.7	86.4	91.3	95.8	98.9	99.5
127.5°	65.7	70.8	76.2	79.4	85.0	87.6	89.3	89.9
130°	61.1	64.8	68.8	72.1	76.2	77.8	79.7	80.1
132.5°	54.2	58.8	61.0	64.6	66.8	68.4	70.3	70.6
135°	47.8	50.8	53.5	55.5	57.7	59.9	61.0	61.0
137.5°	43.1	44.8	47.3	48.4	50.6	51.5	51.8	52.0
140°	37.2	40.1	40.6	42.6	43.6	43.8	44.2	44.1
142.5°	33.9	35.2	36.5	37.7	38.0	38.3	39.0	39.3
145°	30.8	31.4	33.1	32.9	33.5	34.6	35.2	35.2
147.5°	27.5	29.5	29.2	29.7	31.0	31.0	30.9	30.8
150°	26.1	26.4	26.6	28.0	27.8	27.4	27.5	27.5
152.5°	23.9	24.3	25.5	25.2	25.0	25.1	25.3	25.5
155°	22.1	23.4	23.0	22.9	23.4	23.9	24.1	24.2
157.5°	21.5	21.3	21.3	22.1	22.5	22.2	22.2	22.0
160°	19.5	20.0	20.6	20.6	20.4	20.1	20.1	20.1
162.5°	18.8	19.4	19.1	18.7	18.8	18.8	19.0	19.0
165°	17.8	17.6	17.5	17.7	18.1	18.3	18.4	18.3
167.5°	16.5	17.0	17.4	17.4	17.2	17.0	16.9	16.9
170°	16.5	16.6	16.2	15.9	15.7	15.5	15.4	15.4
172.5°	15.3	15.3	15.2	15.1	15.2	15.0	15.2	15.1
175°	14.7	15.0	15.0	15.0	15.0	14.8	14.9	14.8
177.5°	14.2	14.0	13.8	13.4	13.3	13.1	13.0	13.0
180°	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5

(END OF REPORT)