

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P987458

Luminaire Tested: S122DR-B290DB2750-4F0-XX-W2A-D_3500K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P987458
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-14)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122DR-B290DB2750-4F0-XX-W2A-D_3500K
Description: Define 2 Direct Recessed with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

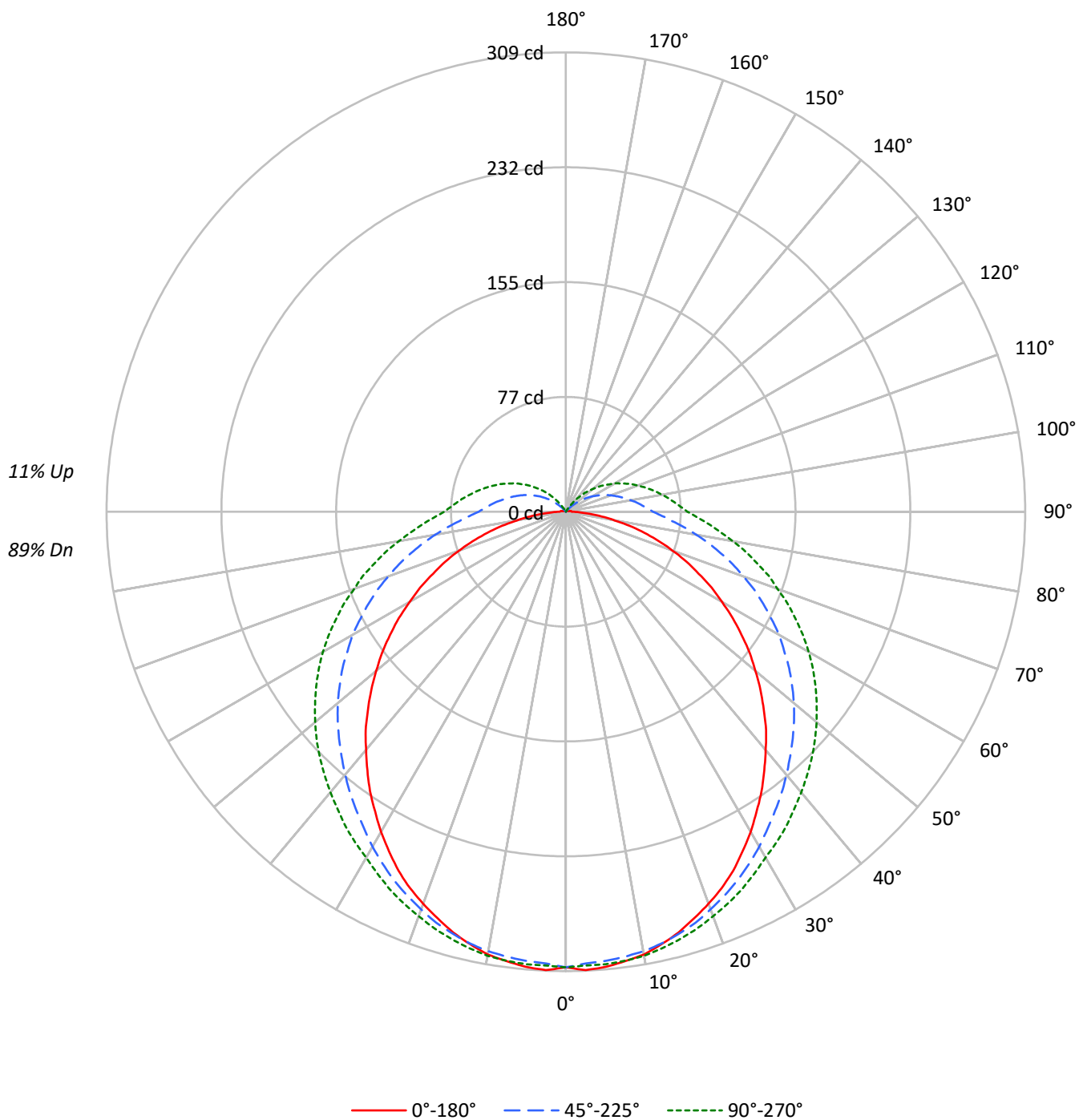
Lumens per Lamp: N/A
Luminaire Lumens: 1169.0 lumens
Efficiency: N/A
Efficacy: 89.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 13
Input Voltage (V):
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: 24 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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92
1	104	98	93	88	100	95	90	86	88	85	81	82	79	77	77	75	72
2	94	84	77	70	90	81	74	68	76	70	65	71	66	62	66	62	59
3	85	73	64	57	81	71	63	56	66	59	54	62	56	51	58	53	49
4	77	64	55	48	74	62	54	47	58	51	45	55	48	43	51	46	42
5	71	57	48	41	68	56	47	40	52	44	39	49	42	37	46	40	36
6	65	51	42	35	63	50	41	35	47	39	34	44	37	32	42	36	31
7	60	46	37	31	58	45	37	31	43	35	30	40	34	29	38	32	28
8	56	42	34	28	54	41	33	27	39	32	26	37	30	25	35	29	25
9	52	39	30	25	50	38	30	24	36	29	24	34	27	23	32	26	22
10	49	36	28	22	47	35	27	22	33	26	21	31	25	21	30	24	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4850	4850	4850
5°	4883	4819	4854
10°	4861	4825	4875
15°	4802	4816	4875
20°	4727	4794	4877
25°	4653	4777	4894
30°	4544	4756	4909
35°	4437	4744	4993
40°	4321	4771	5092
45°	4215	4831	5238
50°	4100	4933	5423
55°	3982	5061	5660
60°	3837	5243	5974
65°	3693	5487	6386
70°	3536	5878	7007
75°	3339	6599	8122
80°	3036	8131	10401
85°	2906	13059	17581

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 32225 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.0	2.5
10°-20°	83.3	7.1
20°-30°	126.2	10.8
30°-40°	153.7	13.1
40°-50°	165.4	14.1
50°-60°	160.6	13.7
60°-70°	140.2	12.0
70°-80°	108.0	9.2
80°-90°	72.3	6.2
90°-100°	49.9	4.3
100°-110°	36.4	3.1
110°-120°	24.1	2.1
120°-130°	13.4	1.1
130°-140°	5.6	0.5
140°-150°	0.9	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	238.5	20.4
0°-40°	392.2	33.6
0°-60°	718.2	61.4
0°-90°	1038.7	88.9
90°-120°	110.4	9.4
90°-150°	130.3	11.1
90°-180°	130.0	11.1
0°-180°	1169.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	306	306	306	306	306	
5°	307	306	303	306	306	29
15°	293	294	294	298	298	83
25°	266	270	274	279	280	123
35°	230	237	246	255	258	143
45°	188	200	216	230	234	145
55°	144	160	183	199	205	129
65°	99	120	146	165	170	98
75°	55	80	108	127	133	58
85°	16	44	72	91	97	17
90°	4	30	59	76	82	3
95°	4	24	51	68	73	3
105°	2	15	38	54	59	3
115°	2	7	27	40	45	2
125°	1	1	15	27	31	1
135°	0	0	5	14	18	0
145°	0	0	0	3	5	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	306.4	306.4	306.4	306.4	306.4
2.5°	308.6	307.3	304.1	306.4	305.5
5°	307.3	305.9	303.3	305.9	305.5
7.5°	305.0	304.1	301.9	305.0	304.6
10°	302.4	301.5	300.2	303.7	303.3
12.5°	297.9	298.4	297.5	301.0	300.6
15°	293.0	293.9	293.9	297.9	297.5
17.5°	286.8	288.6	289.9	293.9	293.9
20°	280.6	282.8	284.6	289.5	289.5
22.5°	274.0	276.6	279.3	284.2	285.1
25°	266.4	269.5	273.5	278.8	280.2
27.5°	257.5	262.4	266.9	273.5	274.4
30°	248.6	254.4	260.2	267.3	268.6
32.5°	238.9	245.5	252.6	261.1	263.7
35°	229.6	237.1	245.5	255.3	258.4
37.5°	219.3	227.8	238.4	249.1	252.2
40°	209.1	218.9	230.9	242.4	246.4
42.5°	199.4	209.1	223.3	236.2	240.2
45°	188.3	200.3	215.8	229.6	234.0
47.5°	177.6	190.5	208.2	222.5	227.3
50°	166.5	180.3	200.3	215.3	220.2
52.5°	155.8	170.5	191.8	207.4	212.7
55°	144.3	160.3	183.4	199.4	205.1
57.5°	133.2	151.0	174.1	191.4	197.1
60°	121.2	140.3	165.6	182.5	188.7
62.5°	110.6	130.5	155.8	174.1	179.8
65°	98.6	120.3	146.5	164.7	170.5
67.5°	87.9	110.6	137.2	155.4	161.6
70°	76.4	99.5	127.0	146.1	151.4
72.5°	65.7	89.7	117.7	136.3	143.0
75°	54.6	79.5	107.9	127.0	132.8
77.5°	44.0	69.7	98.6	117.7	123.9
80°	33.3	60.4	89.2	107.9	114.1
82.5°	24.4	51.1	80.4	99.0	104.8
85°	16.0	43.5	71.9	90.6	96.8
87.5°	9.8	36.4	64.8	83.0	88.8
90°	4.4	30.2	58.6	76.4	81.7
92.5°	4.0	27.5	54.6	71.9	77.3
95°	3.6	24.4	51.1	67.9	73.3
97.5°	3.1	22.2	48.0	64.4	69.7
100°	3.1	19.5	44.4	60.8	65.7
102.5°	2.7	17.3	41.3	57.3	62.2
105°	2.2	15.1	38.2	53.7	58.6
107.5°	2.2	12.9	35.1	50.2	55.1
110°	1.8	10.7	32.4	46.6	51.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.8	8.9	29.3	43.5	48.4
115°	1.8	6.7	26.6	40.0	44.8
117.5°	1.3	4.9	23.5	36.9	41.3
120°	1.3	3.1	20.9	33.3	38.2
122.5°	1.3	1.8	18.2	30.2	34.2
125°	0.9	0.9	15.1	27.1	31.1
127.5°	0.9	0.4	12.4	23.5	27.5
130°	0.9	0.4	9.8	20.4	24.0
132.5°	0.9	0.4	7.1	17.3	20.9
135°	0.4	0.4	4.9	14.2	17.8
137.5°	0.4	0.4	2.7	11.1	14.2
140°	0.4	0.0	0.9	8.0	10.7
142.5°	0.4	0.0	0.0	5.3	7.5
145°	0.0	0.0	0.0	2.7	4.9
147.5°	0.0	0.0	0.0	0.4	1.8
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)