

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: P987459

Luminaire Tested: S122DR-B290DB2750-4F0-XX-W2A-D_4000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P987459
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_4000K
Description: Define 2 Direct Recessed with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

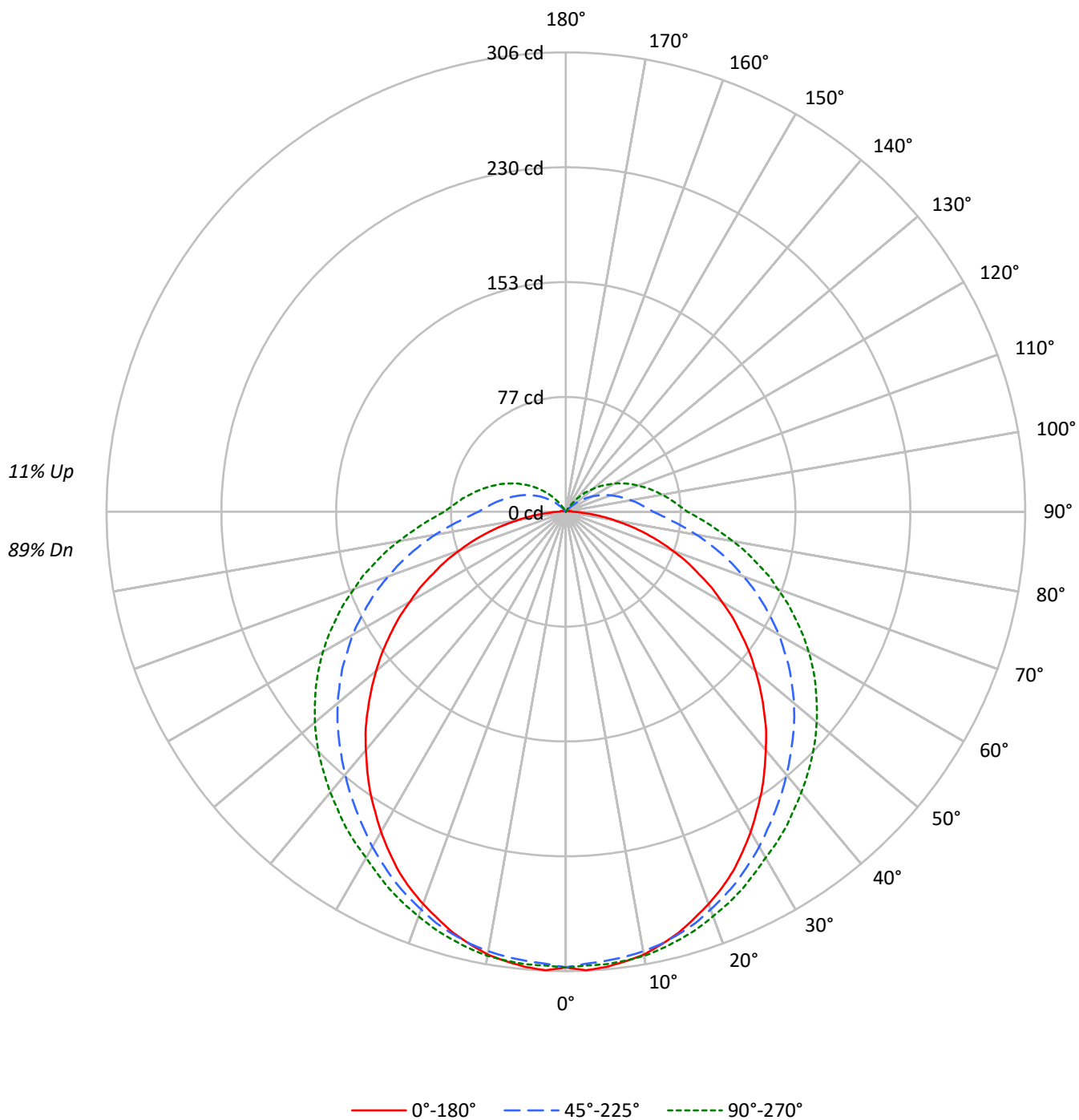
Lumens per Lamp: N/A
Luminaire Lumens: 1158.0 lumens
Efficiency: N/A
Efficacy: 89.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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°	4804	4804	4804
5°	4837	4773	4808
10°	4814	4779	4828
15°	4757	4772	4829
20°	4683	4749	4831
25°	4609	4731	4847
30°	4502	4710	4864
35°	4394	4700	4947
40°	4282	4726	5044
45°	4175	4786	5189
50°	4061	4886	5373
55°	3944	5014	5608
60°	3802	5195	5917
65°	3656	5435	6326
70°	3504	5822	6942
75°	3309	6538	8042
80°	3008	8058	10301
85°	2870	12950	17417

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 31935 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.8	2.5
10°-20°	82.5	7.1
20°-30°	125.0	10.8
30°-40°	152.2	13.1
40°-50°	163.8	14.1
50°-60°	159.1	13.7
60°-70°	138.9	12.0
70°-80°	106.9	9.2
80°-90°	71.6	6.2
90°-100°	49.4	4.3
100°-110°	36.1	3.1
110°-120°	23.8	2.1
120°-130°	13.3	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°	236.3	20.4
0°-40°	388.5	33.6
0°-60°	711.5	61.4
0°-90°	1028.9	88.9
90°-120°	109.3	9.4
90°-150°	129.1	11.1
90°-180°	129.0	11.1
0°-180°	1158.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	304	304	304	304	304	
5°	304	303	300	303	303	29
15°	290	291	291	295	295	82
25°	264	267	271	276	278	121
35°	227	235	243	253	256	142
45°	186	198	214	227	232	144
55°	143	159	182	198	203	128
65°	98	119	145	163	169	97
75°	54	79	107	126	132	57
85°	16	43	71	90	96	17
90°	4	30	58	76	81	3
95°	4	24	51	67	73	3
105°	2	15	38	53	58	3
115°	2	7	26	40	44	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°	303.5	303.5	303.5	303.5	303.5
2.5°	305.7	304.4	301.3	303.5	302.6
5°	304.4	303.0	300.4	303.0	302.6
7.5°	302.2	301.3	299.1	302.2	301.7
10°	299.5	298.6	297.3	300.8	300.4
12.5°	295.1	295.6	294.7	298.2	297.8
15°	290.3	291.2	291.2	295.1	294.7
17.5°	284.1	285.9	287.2	291.2	291.2
20°	278.0	280.2	281.9	286.8	286.8
22.5°	271.4	274.0	276.7	281.5	282.4
25°	263.9	267.0	270.9	276.2	277.5
27.5°	255.1	259.9	264.3	270.9	271.8
30°	246.3	252.0	257.7	264.8	266.1
32.5°	236.6	243.2	250.3	258.6	261.3
35°	227.4	234.9	243.2	252.9	256.0
37.5°	217.3	225.6	236.2	246.7	249.8
40°	207.2	216.8	228.7	240.2	244.1
42.5°	197.5	207.2	221.2	234.0	238.0
45°	186.5	198.4	213.8	227.4	231.8
47.5°	175.9	188.7	206.3	220.4	225.2
50°	164.9	178.6	198.4	213.3	218.2
52.5°	154.4	168.9	190.0	205.4	210.7
55°	142.9	158.8	181.7	197.5	203.2
57.5°	132.0	149.5	172.4	189.6	195.3
60°	120.1	139.0	164.1	180.8	186.9
62.5°	109.5	129.3	154.4	172.4	178.1
65°	97.6	119.2	145.1	163.2	168.9
67.5°	87.1	109.5	135.9	153.9	160.1
70°	75.7	98.5	125.8	144.7	150.0
72.5°	65.1	88.8	116.6	135.0	141.6
75°	54.1	78.7	106.9	125.8	131.5
77.5°	43.5	69.1	97.6	116.6	122.7
80°	33.0	59.8	88.4	106.9	113.0
82.5°	24.2	50.6	79.6	98.1	103.8
85°	15.8	43.1	71.3	89.7	95.9
87.5°	9.7	36.1	64.2	82.2	88.0
90°	4.4	29.9	58.1	75.7	80.9
92.5°	4.0	27.3	54.1	71.3	76.5
95°	3.5	24.2	50.6	67.3	72.6
97.5°	3.1	22.0	47.5	63.8	69.1
100°	3.1	19.4	44.0	60.3	65.1
102.5°	2.6	17.2	40.9	56.7	61.6
105°	2.2	15.0	37.8	53.2	58.1
107.5°	2.2	12.8	34.7	49.7	54.5
110°	1.8	10.6	32.1	46.2	51.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.8	8.8	29.0	43.1	47.9
115°	1.8	6.6	26.4	39.6	44.4
117.5°	1.3	4.8	23.3	36.5	40.9
120°	1.3	3.1	20.7	33.0	37.8
122.5°	1.3	1.8	18.0	29.9	33.9
125°	0.9	0.9	15.0	26.8	30.8
127.5°	0.9	0.4	12.3	23.3	27.3
130°	0.9	0.4	9.7	20.2	23.8
132.5°	0.9	0.4	7.0	17.2	20.7
135°	0.4	0.4	4.8	14.1	17.6
137.5°	0.4	0.4	2.6	11.0	14.1
140°	0.4	0.0	0.9	7.9	10.6
142.5°	0.4	0.0	0.0	5.3	7.5
145°	0.0	0.0	0.0	2.6	4.8
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)