

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: P987506

Luminaire Tested: S122DR-B485DB50-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P987506
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-B485DB50-4F0-XX-W2A-D
Description: Define 2 Direct Recessed with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

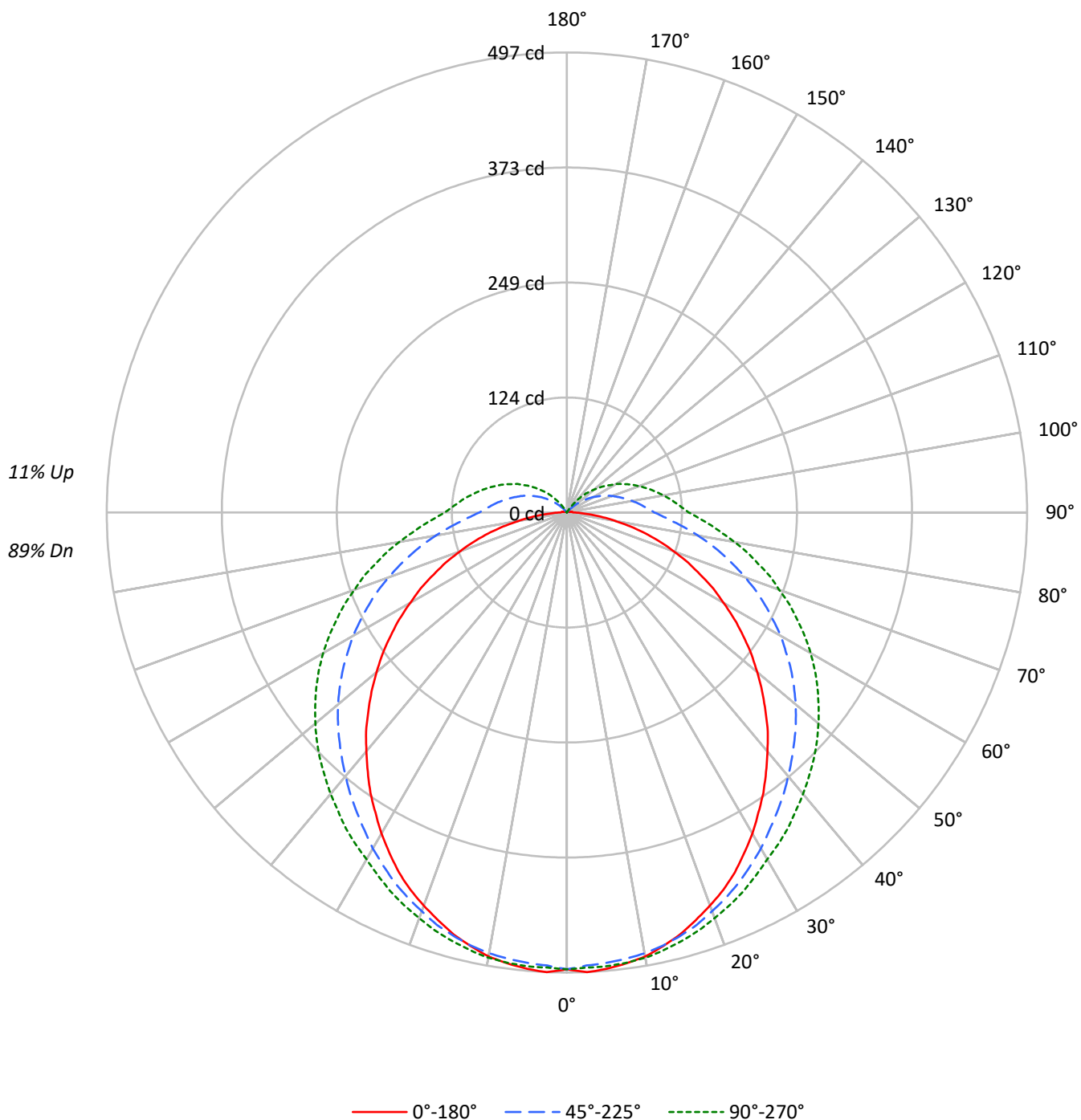
Lumens per Lamp: N/A
Luminaire Lumens: 1883.0 lumens
Efficiency: N/A
Efficacy: 78.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 24
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°	7812	7812	7812
5°	7864	7762	7819
10°	7829	7772	7852
15°	7735	7760	7853
20°	7614	7722	7855
25°	7495	7695	7882
30°	7320	7660	7909
35°	7146	7643	8045
40°	6962	7685	8201
45°	6787	7781	8437
50°	6605	7944	8735
55°	6414	8152	9118
60°	6183	8447	9624
65°	5948	8839	10285
70°	5693	9465	11288
75°	5382	10630	13076
80°	4886	13108	16755
85°	4668	21050	28315

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 51894 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.8	2.5
10°-20°	134.2	7.1
20°-30°	203.3	10.8
30°-40°	247.6	13.1
40°-50°	266.4	14.1
50°-60°	258.7	13.7
60°-70°	225.9	12.0
70°-80°	173.9	9.2
80°-90°	116.4	6.2
90°-100°	80.3	4.3
100°-110°	58.7	3.1
110°-120°	38.7	2.1
120°-130°	21.6	1.1
130°-140°	9.1	0.5
140°-150°	1.5	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	384.3	20.4
0°-40°	631.8	33.6
0°-60°	1156.9	61.4
0°-90°	1673.1	88.9
90°-120°	177.7	9.4
90°-150°	209.9	11.1
90°-180°	210.0	11.2
0°-180°	1883.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	494	494	494	494	494	
5°	495	493	488	493	492	47
15°	472	474	474	480	479	133
25°	429	434	441	449	451	197
35°	370	382	396	411	416	231
45°	303	323	348	370	377	234
55°	232	258	295	321	330	208
65°	159	194	236	265	275	158
75°	88	128	174	204	214	93
85°	26	70	116	146	156	27
90°	7	49	94	123	132	5
95°	6	39	82	109	118	4
105°	4	24	62	86	94	4
115°	3	11	43	64	72	3
125°	1	1	24	44	50	1
135°	1	1	8	23	29	1
145°	0	0	0	4	8	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°	493.5	493.5	493.5	493.5	493.5
2.5°	497.1	494.9	489.9	493.5	492.1
5°	494.9	492.8	488.5	492.8	492.1
7.5°	491.3	489.9	486.3	491.3	490.6
10°	487.1	485.6	483.5	489.2	488.5
12.5°	479.9	480.6	479.2	484.9	484.2
15°	472.0	473.5	473.5	479.9	479.2
17.5°	462.0	464.9	467.0	473.5	473.5
20°	452.0	455.6	458.4	466.3	466.3
22.5°	441.3	445.6	449.9	457.7	459.2
25°	429.1	434.1	440.6	449.2	451.3
27.5°	414.8	422.7	429.8	440.6	442.0
30°	400.5	409.8	419.1	430.6	432.7
32.5°	384.8	395.5	407.0	420.5	424.8
35°	369.8	381.9	395.5	411.2	416.3
37.5°	353.3	366.9	384.1	401.2	406.2
40°	336.9	352.6	371.9	390.5	396.9
42.5°	321.1	336.9	359.7	380.5	386.9
45°	303.2	322.6	347.6	369.8	376.9
47.5°	286.1	306.8	335.4	358.3	366.2
50°	268.2	290.4	322.6	346.9	354.7
52.5°	251.0	274.6	309.0	334.0	342.6
55°	232.4	258.2	295.4	321.1	330.4
57.5°	214.6	243.2	280.4	308.3	317.6
60°	195.3	226.0	266.8	294.0	304.0
62.5°	178.1	210.3	251.0	280.4	289.7
65°	158.8	193.8	236.0	265.3	274.6
67.5°	141.6	178.1	221.0	250.3	260.3
70°	123.0	160.2	204.5	235.3	243.9
72.5°	105.9	144.5	189.5	219.6	230.3
75°	88.0	128.0	173.8	204.5	213.8
77.5°	70.8	112.3	158.8	189.5	199.5
80°	53.6	97.3	143.8	173.8	183.8
82.5°	39.3	82.2	129.5	159.5	168.8
85°	25.7	70.1	115.9	145.9	155.9
87.5°	15.7	58.6	104.4	133.7	143.0
90°	7.2	48.6	94.4	123.0	131.6
92.5°	6.4	44.3	88.0	115.9	124.4
95°	5.7	39.3	82.2	109.4	118.0
97.5°	5.0	35.8	77.2	103.7	112.3
100°	5.0	31.5	71.5	98.0	105.9
102.5°	4.3	27.9	66.5	92.3	100.1
105°	3.6	24.3	61.5	86.5	94.4
107.5°	3.6	20.7	56.5	80.8	88.7
110°	2.9	17.2	52.2	75.1	83.0

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.9	14.3	47.2	70.1	78.0
115°	2.9	10.7	42.9	64.4	72.2
117.5°	2.1	7.9	37.9	59.4	66.5
120°	2.1	5.0	33.6	53.6	61.5
122.5°	2.1	2.9	29.3	48.6	55.1
125°	1.4	1.4	24.3	43.6	50.1
127.5°	1.4	0.7	20.0	37.9	44.3
130°	1.4	0.7	15.7	32.9	38.6
132.5°	1.4	0.7	11.4	27.9	33.6
135°	0.7	0.7	7.9	22.9	28.6
137.5°	0.7	0.7	4.3	17.9	22.9
140°	0.7	0.0	1.4	12.9	17.2
142.5°	0.7	0.0	0.0	8.6	12.2
145°	0.0	0.0	0.0	4.3	7.9
147.5°	0.0	0.0	0.0	0.7	2.9
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)