

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: P987503

Luminaire Tested: S122DR-B485DB40-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P987503
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-B485DB40-4F0-XX-W2A-D
Description: Define 2 Direct Recessed with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

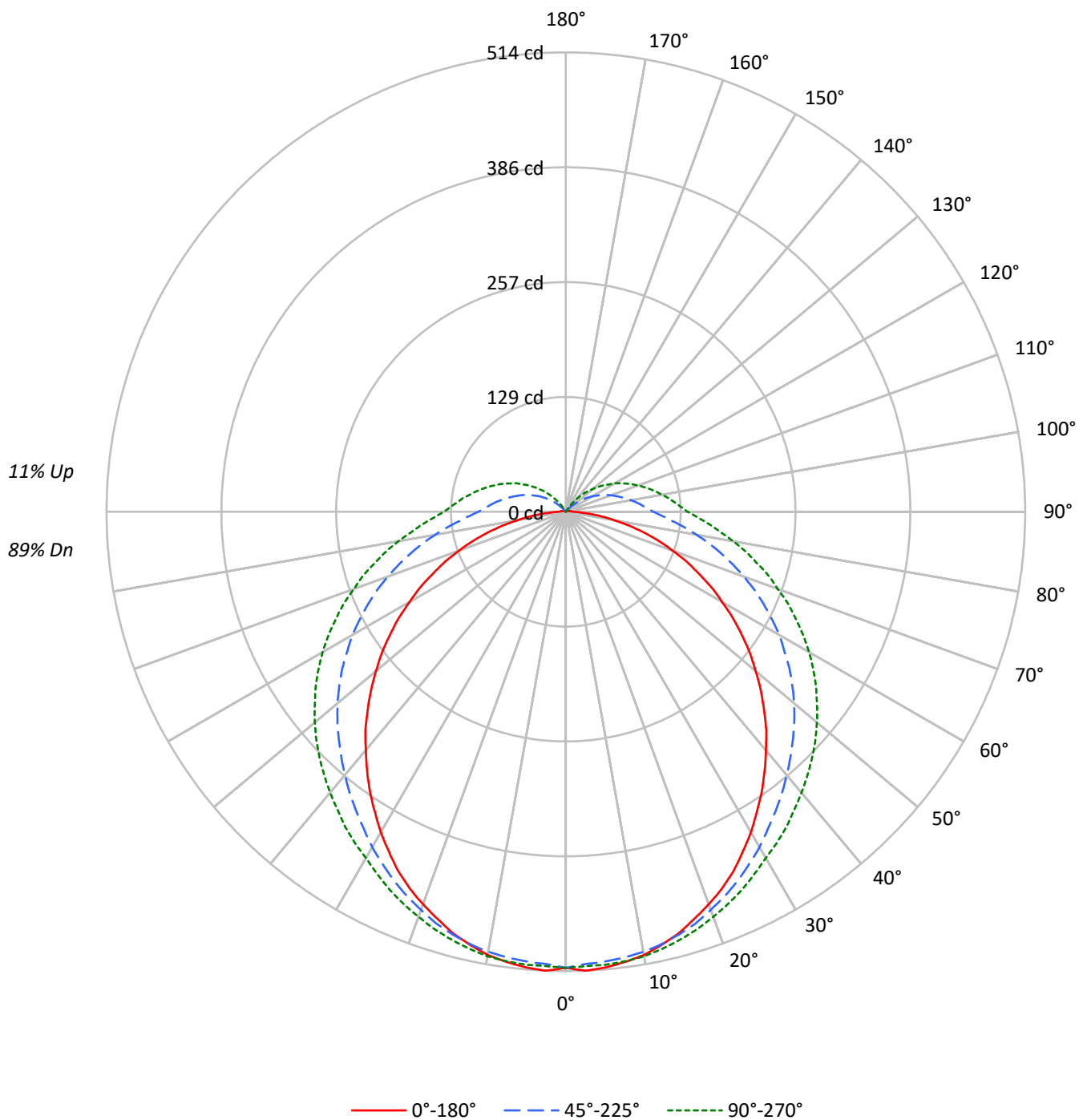
Lumens per Lamp: N/A
Luminaire Lumens: 1947.0 lumens
Efficiency: N/A
Efficacy: 81.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8078	8078	8078
5°	8131	8026	8085
10°	8095	8035	8119
15°	7999	8023	8120
20°	7873	7985	8123
25°	7750	7956	8149
30°	7569	7922	8178
35°	7388	7904	8317
40°	7197	7945	8480
45°	7020	8046	8724
50°	6829	8213	9033
55°	6632	8428	9430
60°	6392	8731	9950
65°	6150	9139	10637
70°	5887	9789	11672
75°	5566	10990	13522
80°	5059	13546	17329
85°	4831	21758	29277

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 53672 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.4	2.5
10°-20°	138.7	7.1
20°-30°	210.2	10.8
30°-40°	256.0	13.1
40°-50°	275.4	14.1
50°-60°	267.5	13.7
60°-70°	233.6	12.0
70°-80°	179.8	9.2
80°-90°	120.4	6.2
90°-100°	83.1	4.3
100°-110°	60.7	3.1
110°-120°	40.1	2.1
120°-130°	22.3	1.1
130°-140°	9.4	0.5
140°-150°	1.6	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	397.3	20.4
0°-40°	653.3	33.6
0°-60°	1196.2	61.4
0°-90°	1729.9	88.9
90°-120°	183.8	9.4
90°-150°	217.0	11.1
90°-180°	217.0	11.1
0°-180°	1947.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	510	510	510	510	510	
5°	512	510	505	510	509	49
15°	488	490	490	496	496	137
25°	444	449	456	464	467	204
35°	382	395	409	425	430	239
45°	314	334	359	382	390	242
55°	240	267	305	332	342	215
65°	164	200	244	274	284	163
75°	91	132	180	212	221	96
85°	27	72	120	151	161	28
90°	7	50	98	127	136	5
95°	6	41	85	113	122	5
105°	4	25	64	90	98	4
115°	3	11	44	67	75	3
125°	2	2	25	45	52	2
135°	1	1	8	24	30	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°	510.3	510.3	510.3	510.3	510.3
2.5°	514.0	511.7	506.6	510.3	508.8
5°	511.7	509.5	505.1	509.5	508.8
7.5°	508.0	506.6	502.9	508.0	507.3
10°	503.6	502.1	499.9	505.8	505.1
12.5°	496.2	497.0	495.5	501.4	500.7
15°	488.1	489.6	489.6	496.2	495.5
17.5°	477.7	480.7	482.9	489.6	489.6
20°	467.4	471.1	474.0	482.2	482.2
22.5°	456.3	460.7	465.2	473.3	474.8
25°	443.7	448.9	455.5	464.4	466.6
27.5°	428.9	437.1	444.4	455.5	457.0
30°	414.1	423.7	433.4	445.2	447.4
32.5°	397.9	409.0	420.8	434.8	439.3
35°	382.3	394.9	409.0	425.2	430.4
37.5°	365.3	379.4	397.1	414.9	420.0
40°	348.3	364.6	384.5	403.8	410.4
42.5°	332.0	348.3	372.0	393.4	400.1
45°	313.6	333.5	359.4	382.3	389.7
47.5°	295.8	317.3	346.8	370.5	378.6
50°	277.3	300.2	333.5	358.7	366.8
52.5°	259.6	284.0	319.5	345.4	354.2
55°	240.3	267.0	305.4	332.0	341.7
57.5°	221.9	251.4	289.9	318.7	328.3
60°	201.9	233.7	275.8	303.9	314.3
62.5°	184.1	217.4	259.6	289.9	299.5
65°	164.2	200.4	244.0	274.4	284.0
67.5°	146.4	184.1	228.5	258.8	269.2
70°	127.2	165.7	211.5	243.3	252.2
72.5°	109.4	149.4	196.0	227.0	238.1
75°	91.0	132.4	179.7	211.5	221.1
77.5°	73.2	116.1	164.2	196.0	206.3
80°	55.5	100.6	148.6	179.7	190.1
82.5°	40.7	85.0	133.9	164.9	174.5
85°	26.6	72.5	119.8	150.9	161.2
87.5°	16.3	60.6	108.0	138.3	147.9
90°	7.4	50.3	97.6	127.2	136.1
92.5°	6.7	45.9	91.0	119.8	128.7
95°	5.9	40.7	85.0	113.1	122.0
97.5°	5.2	37.0	79.9	107.2	116.1
100°	5.2	32.5	74.0	101.3	109.4
102.5°	4.4	28.8	68.8	95.4	103.5
105°	3.7	25.1	63.6	89.5	97.6
107.5°	3.7	21.4	58.4	83.6	91.7
110°	3.0	17.7	54.0	77.6	85.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.0	14.8	48.8	72.5	80.6
115°	3.0	11.1	44.4	66.6	74.7
117.5°	2.2	8.1	39.2	61.4	68.8
120°	2.2	5.2	34.8	55.5	63.6
122.5°	2.2	3.0	30.3	50.3	56.9
125°	1.5	1.5	25.1	45.1	51.8
127.5°	1.5	0.7	20.7	39.2	45.9
130°	1.5	0.7	16.3	34.0	39.9
132.5°	1.5	0.7	11.8	28.8	34.8
135°	0.7	0.7	8.1	23.7	29.6
137.5°	0.7	0.7	4.4	18.5	23.7
140°	0.7	0.0	1.5	13.3	17.7
142.5°	0.7	0.0	0.0	8.9	12.6
145°	0.0	0.0	0.0	4.4	8.1
147.5°	0.0	0.0	0.0	0.7	3.0
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)