

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: P987497

Luminaire Tested: S122DR-B485DB30-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P987497
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-B485DB30-4F0-XX-W2A-D
Description: Define 2 Direct Recessed with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

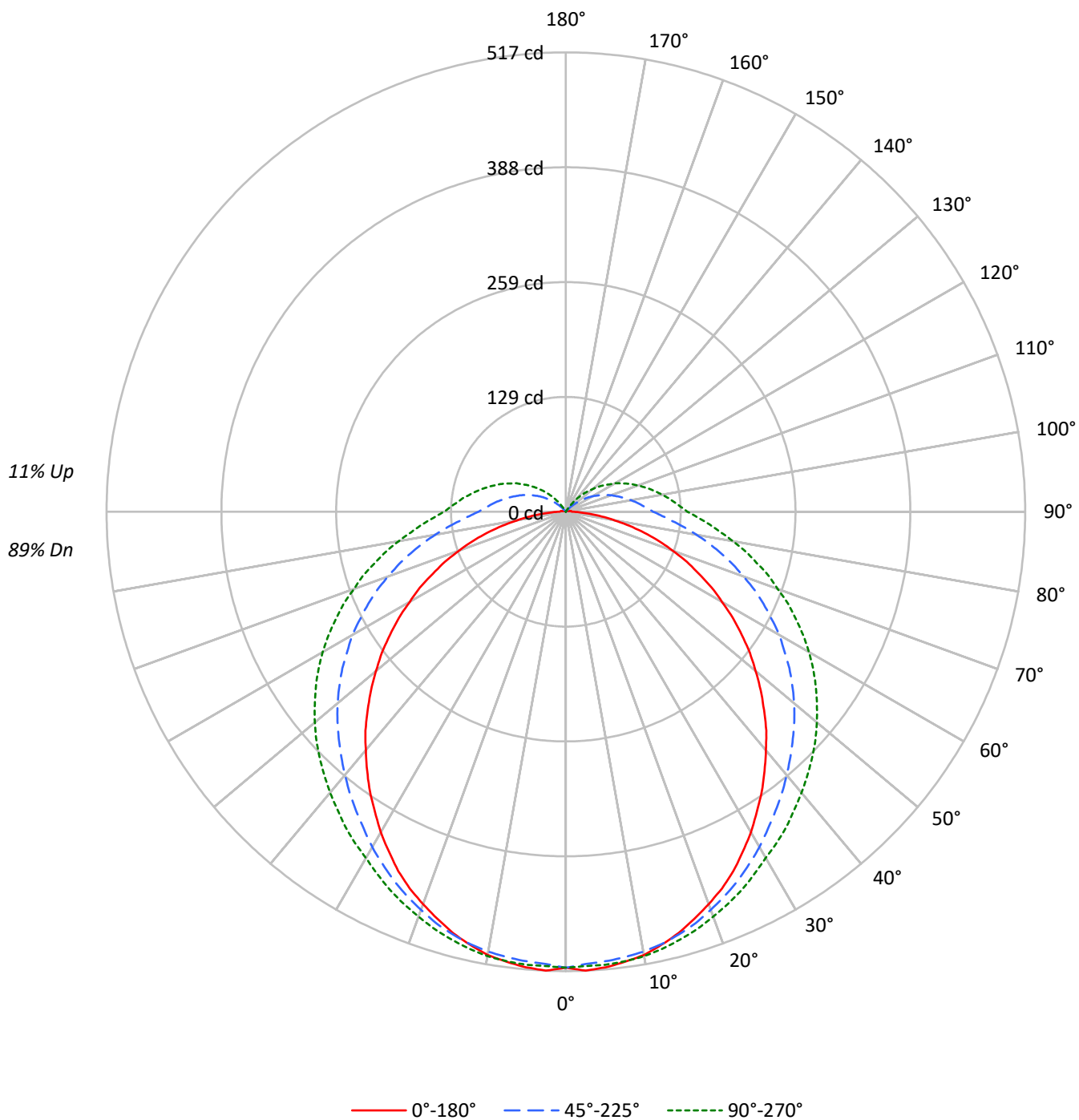
Lumens per Lamp: N/A
Luminaire Lumens: 1958.0 lumens
Efficiency: N/A
Efficacy: 81.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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°	8122	8122	8122
5°	8177	8070	8131
10°	8141	8080	8164
15°	8043	8068	8166
20°	7917	8030	8168
25°	7793	8001	8197
30°	7613	7966	8223
35°	7430	7948	8363
40°	7238	7991	8530
45°	7058	8090	8773
50°	6868	8260	9085
55°	6670	8475	9483
60°	6427	8782	10007
65°	6184	9192	10697
70°	5919	9844	11737
75°	5596	11052	13602
80°	5087	13628	17420
85°	4867	21885	29441

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 53963 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.6	2.5
10°-20°	139.5	7.1
20°-30°	211.4	10.8
30°-40°	257.4	13.1
40°-50°	277.0	14.1
50°-60°	269.0	13.7
60°-70°	234.9	12.0
70°-80°	180.8	9.2
80°-90°	121.1	6.2
90°-100°	83.5	4.3
100°-110°	61.0	3.1
110°-120°	40.3	2.1
120°-130°	22.4	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°	399.6	20.4
0°-40°	657.0	33.6
0°-60°	1202.9	61.4
0°-90°	1739.7	88.9
90°-120°	184.8	9.4
90°-150°	218.3	11.1
90°-180°	218.0	11.1
0°-180°	1958.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	513	513	513	513	513	
5°	515	512	508	512	512	49
15°	491	492	492	499	498	138
25°	446	451	458	467	469	205
35°	384	397	411	428	433	240
45°	315	335	361	384	392	243
55°	242	268	307	334	344	216
65°	165	202	245	276	286	164
75°	92	133	181	213	222	97
85°	27	73	120	152	162	28
90°	7	51	98	128	137	5
95°	6	41	86	114	123	5
105°	4	25	64	90	98	4
115°	3	11	45	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°	513.1	513.1	513.1	513.1	513.1
2.5°	516.9	514.6	509.4	513.1	511.7
5°	514.6	512.4	507.9	512.4	511.7
7.5°	510.9	509.4	505.7	510.9	510.2
10°	506.5	505.0	502.7	508.7	507.9
12.5°	499.0	499.8	498.3	504.2	503.5
15°	490.8	492.3	492.3	499.0	498.3
17.5°	480.4	483.4	485.6	492.3	492.3
20°	470.0	473.7	476.7	484.9	484.9
22.5°	458.9	463.3	467.8	476.0	477.5
25°	446.2	451.4	458.1	467.0	469.3
27.5°	431.3	439.5	447.0	458.1	459.6
30°	416.5	426.1	435.8	447.7	449.9
32.5°	400.1	411.3	423.2	437.3	441.8
35°	384.5	397.1	411.3	427.6	432.8
37.5°	367.4	381.5	399.4	417.2	422.4
40°	350.3	366.6	386.7	406.1	412.8
42.5°	333.9	350.3	374.1	395.6	402.3
45°	315.3	335.4	361.4	384.5	391.9
47.5°	297.5	319.0	348.8	372.6	380.8
50°	278.9	301.9	335.4	360.7	368.9
52.5°	261.0	285.6	321.3	347.3	356.2
55°	241.7	268.5	307.1	333.9	343.6
57.5°	223.1	252.9	291.5	320.5	330.2
60°	203.0	235.0	277.4	305.7	316.1
62.5°	185.2	218.6	261.0	291.5	301.2
65°	165.1	201.5	245.4	275.9	285.6
67.5°	147.3	185.2	229.8	260.3	270.7
70°	127.9	166.6	212.7	244.7	253.6
72.5°	110.1	150.2	197.1	228.3	239.5
75°	91.5	133.1	180.7	212.7	222.4
77.5°	73.6	116.8	165.1	197.1	207.5
80°	55.8	101.1	149.5	180.7	191.1
82.5°	40.9	85.5	134.6	165.8	175.5
85°	26.8	72.9	120.5	151.7	162.1
87.5°	16.4	61.0	108.6	139.1	148.7
90°	7.4	50.6	98.2	127.9	136.8
92.5°	6.7	46.1	91.5	120.5	129.4
95°	5.9	40.9	85.5	113.8	122.7
97.5°	5.2	37.2	80.3	107.8	116.8
100°	5.2	32.7	74.4	101.9	110.1
102.5°	4.5	29.0	69.2	95.9	104.1
105°	3.7	25.3	64.0	90.0	98.2
107.5°	3.7	21.6	58.8	84.0	92.2
110°	3.0	17.8	54.3	78.1	86.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.0	14.9	49.1	72.9	81.1
115°	3.0	11.2	44.6	66.9	75.1
117.5°	2.2	8.2	39.4	61.7	69.2
120°	2.2	5.2	35.0	55.8	64.0
122.5°	2.2	3.0	30.5	50.6	57.3
125°	1.5	1.5	25.3	45.4	52.1
127.5°	1.5	0.7	20.8	39.4	46.1
130°	1.5	0.7	16.4	34.2	40.2
132.5°	1.5	0.7	11.9	29.0	35.0
135°	0.7	0.7	8.2	23.8	29.7
137.5°	0.7	0.7	4.5	18.6	23.8
140°	0.7	0.0	1.5	13.4	17.8
142.5°	0.7	0.0	0.0	8.9	12.6
145°	0.0	0.0	0.0	4.5	8.2
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)