

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: P987446

Luminaire Tested: S122DR-B1005DB50-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P987446
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-B1005DB50-4F0-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

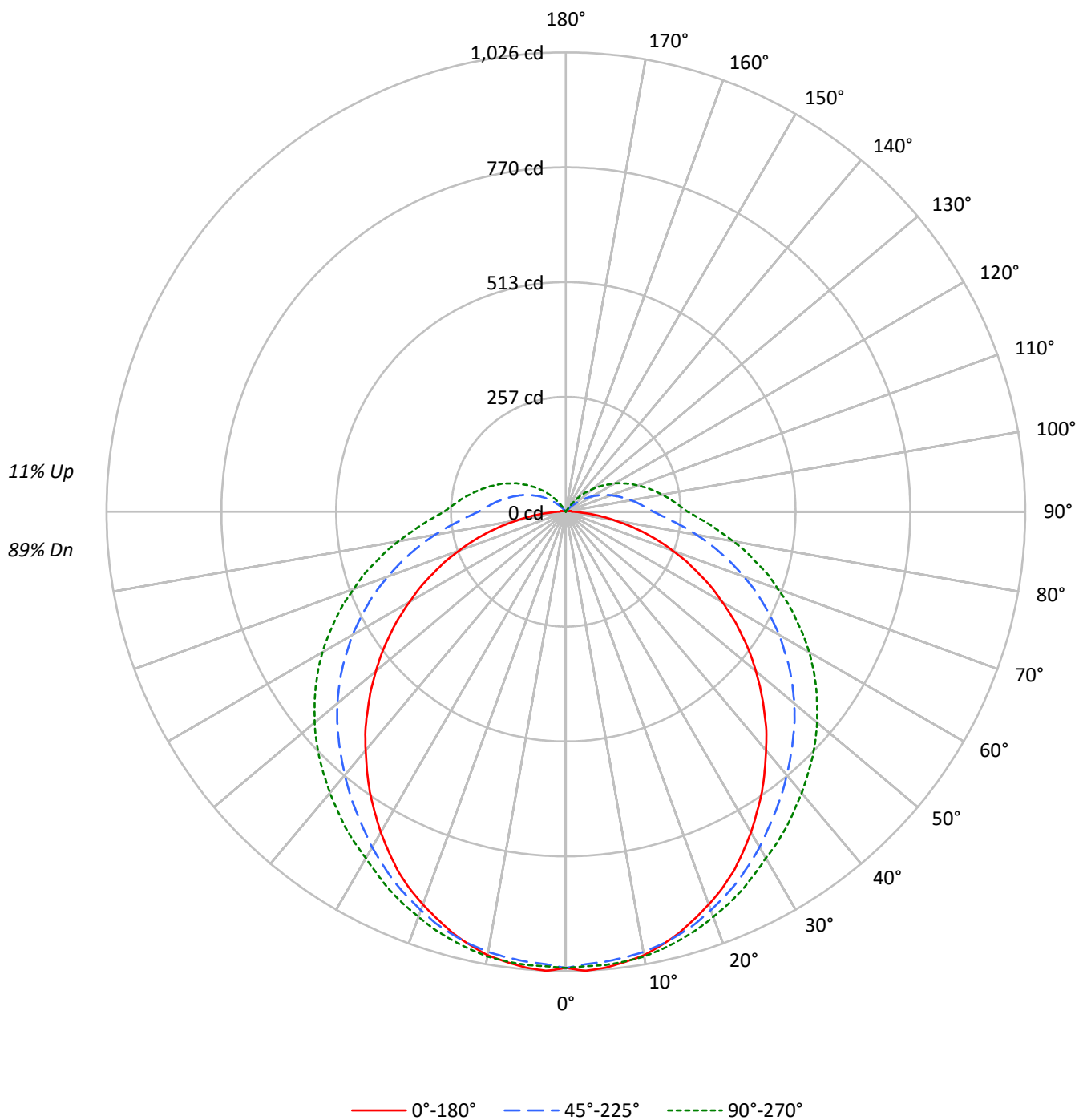
Lumens per Lamp: N/A
Luminaire Lumens: 3888.0 lumens
Efficiency: N/A
Efficacy: 63.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 61.3
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°	16130	16130	16130
5°	16238	16026	16144
10°	16165	16046	16212
15°	15973	16021	16214
20°	15722	15946	16219
25°	15476	15889	16275
30°	15116	15818	16330
35°	14754	15780	16609
40°	14374	15868	16936
45°	14016	16066	17423
50°	13638	16401	18039
55°	13244	16832	18830
60°	12765	17438	19869
65°	12278	18252	21241
70°	11756	19549	23307
75°	11107	21950	27008
80°	10100	27055	34594
85°	9662	43444	58464

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 107199 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.6	2.5
10°-20°	277.0	7.1
20°-30°	419.8	10.8
30°-40°	511.2	13.1
40°-50°	550.0	14.1
50°-60°	534.1	13.7
60°-70°	466.4	12.0
70°-80°	359.0	9.2
80°-90°	240.4	6.2
90°-100°	165.9	4.3
100°-110°	121.1	3.1
110°-120°	80.0	2.1
120°-130°	44.6	1.1
130°-140°	18.7	0.5
140°-150°	3.2	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	793.4	20.4
0°-40°	1304.6	33.6
0°-60°	2388.7	61.4
0°-90°	3454.6	88.9
90°-120°	367.0	9.4
90°-150°	433.4	11.1
90°-180°	433.0	11.1
0°-180°	3888.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1019	1019	1019	1019	1019	
5°	1022	1018	1009	1018	1016	97
15°	975	978	978	991	989	275
25°	886	896	910	927	932	407
35°	764	789	817	849	860	477
45°	626	666	718	764	778	483
55°	480	533	610	663	682	429
65°	328	400	487	548	567	326
75°	182	264	359	422	442	192
85°	53	145	239	301	322	56
90°	15	100	195	254	272	10
95°	12	81	170	226	244	9
105°	7	50	127	179	195	8
115°	6	22	89	133	149	5
125°	3	3	50	90	103	3
135°	2	2	16	47	59	2
145°	0	0	0	9	16	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°	1019.0	1019.0	1019.0	1019.0	1019.0
2.5°	1026.3	1021.9	1011.6	1019.0	1016.0
5°	1021.9	1017.5	1008.6	1017.5	1016.0
7.5°	1014.5	1011.6	1004.2	1014.5	1013.1
10°	1005.7	1002.7	998.3	1010.1	1008.6
12.5°	990.9	992.4	989.4	1001.2	999.8
15°	974.7	977.6	977.6	990.9	989.4
17.5°	954.0	959.9	964.3	977.6	977.6
20°	933.3	940.7	946.6	962.8	962.8
22.5°	911.2	920.0	928.9	945.1	948.1
25°	886.1	896.4	909.7	927.4	931.8
27.5°	856.5	872.8	887.5	909.7	912.6
30°	827.0	846.2	865.4	889.0	893.4
32.5°	794.5	816.6	840.3	868.3	877.2
35°	763.5	788.6	816.6	849.1	859.5
37.5°	729.5	757.6	793.0	828.5	838.8
40°	695.6	728.0	767.9	806.3	819.6
42.5°	663.1	695.6	742.8	785.6	798.9
45°	626.1	666.0	717.7	763.5	778.3
47.5°	590.7	633.5	692.6	739.9	756.1
50°	553.8	599.6	666.0	716.2	732.5
52.5°	518.3	567.1	638.0	689.6	707.4
55°	479.9	533.1	609.9	663.1	682.3
57.5°	443.0	502.1	578.9	636.5	655.7
60°	403.2	466.7	550.8	606.9	627.6
62.5°	367.7	434.2	518.3	578.9	598.1
65°	327.8	400.2	487.3	547.9	567.1
67.5°	292.4	367.7	456.3	516.9	537.5
70°	254.0	330.8	422.4	485.9	503.6
72.5°	218.6	298.3	391.3	453.4	475.5
75°	181.6	264.3	358.9	422.4	441.6
77.5°	146.2	231.9	327.8	391.3	412.0
80°	110.8	200.8	296.8	358.9	379.5
82.5°	81.2	169.8	267.3	329.3	348.5
85°	53.2	144.7	239.2	301.3	321.9
87.5°	32.5	121.1	215.6	276.2	295.4
90°	14.8	100.4	194.9	254.0	271.7
92.5°	13.3	91.6	181.6	239.2	257.0
95°	11.8	81.2	169.8	225.9	243.7
97.5°	10.3	73.8	159.5	214.1	231.9
100°	10.3	65.0	147.7	202.3	218.6
102.5°	8.9	57.6	137.3	190.5	206.7
105°	7.4	50.2	127.0	178.7	194.9
107.5°	7.4	42.8	116.7	166.9	183.1
110°	5.9	35.4	107.8	155.1	171.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.9	29.5	97.5	144.7	161.0
115°	5.9	22.2	88.6	132.9	149.2
117.5°	4.4	16.2	78.3	122.6	137.3
120°	4.4	10.3	69.4	110.8	127.0
122.5°	4.4	5.9	60.5	100.4	113.7
125°	3.0	3.0	50.2	90.1	103.4
127.5°	3.0	1.5	41.3	78.3	91.6
130°	3.0	1.5	32.5	67.9	79.7
132.5°	3.0	1.5	23.6	57.6	69.4
135°	1.5	1.5	16.2	47.3	59.1
137.5°	1.5	1.5	8.9	36.9	47.3
140°	1.5	0.0	3.0	26.6	35.4
142.5°	1.5	0.0	0.0	17.7	25.1
145°	0.0	0.0	0.0	8.9	16.2
147.5°	0.0	0.0	0.0	1.5	5.9
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)