

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: P987548

Luminaire Tested: S122DR-B865DB2750-4F0-XX-W2A-D_3500K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P987548
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-B865DB2750-4F0-XX-W2A-D_3500K
Description: Define 2 Direct Recessed with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

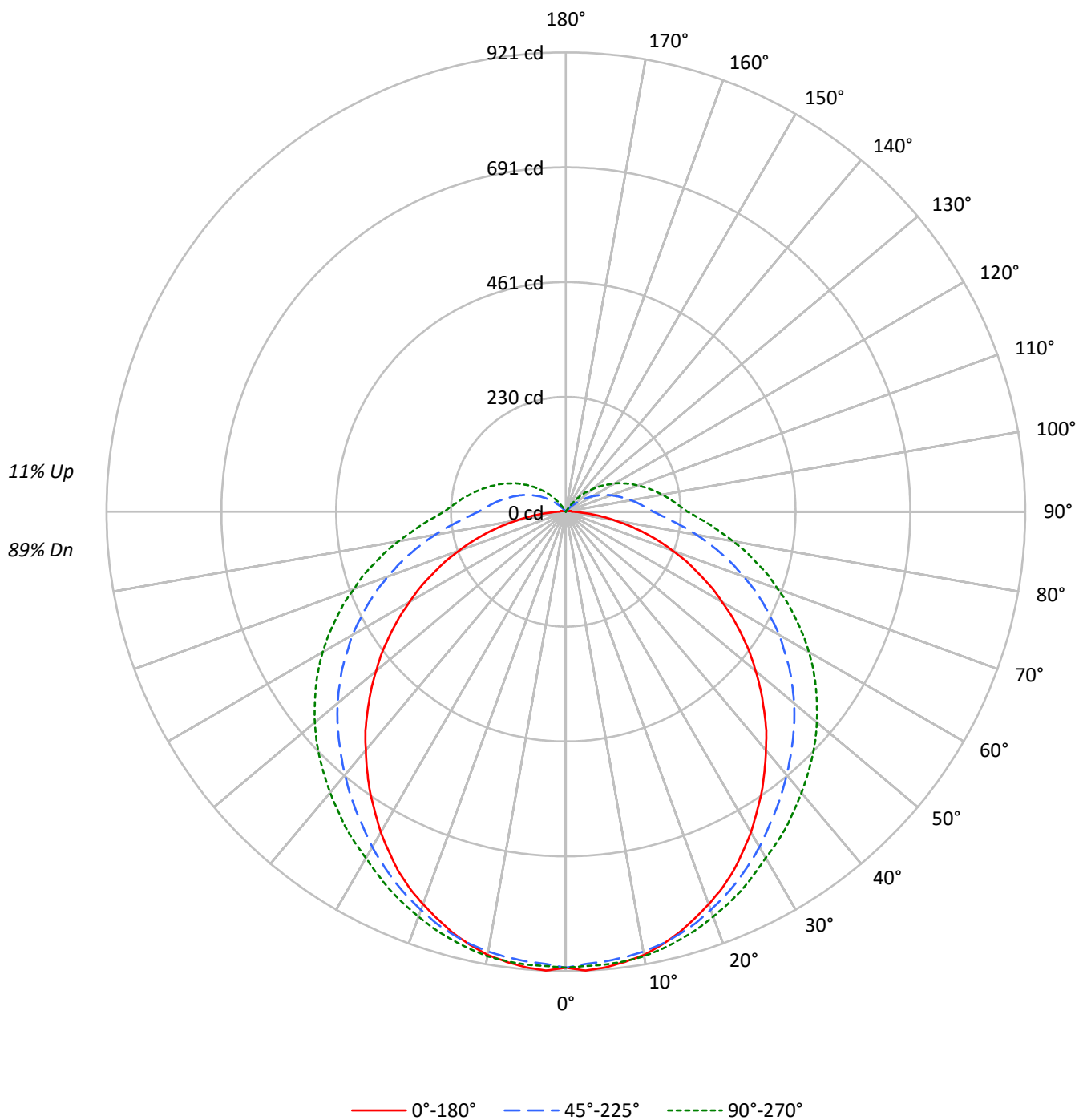
Lumens per Lamp: N/A
Luminaire Lumens: 3488.0 lumens
Efficiency: N/A
Efficacy: 74.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 46.8
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°	14470	14470	14470
5°	14568	14379	14484
10°	14501	14395	14545
15°	14329	14372	14546
20°	14104	14305	14551
25°	13883	14254	14601
30°	13561	14189	14650
35°	13235	14157	14899
40°	12894	14235	15194
45°	12574	14414	15630
50°	12234	14714	16182
55°	11883	15101	16892
60°	11451	15646	17827
65°	11016	16375	19054
70°	10548	17536	20910
75°	9969	19687	24225
80°	9061	24275	31039
85°	8663	38976	52452

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 96167 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.7	2.5
10°-20°	248.5	7.1
20°-30°	376.6	10.8
30°-40°	458.6	13.1
40°-50°	493.4	14.1
50°-60°	479.2	13.7
60°-70°	418.5	12.0
70°-80°	322.1	9.2
80°-90°	215.7	6.2
90°-100°	148.8	4.3
100°-110°	108.7	3.1
110°-120°	71.8	2.1
120°-130°	40.0	1.1
130°-140°	16.8	0.5
140°-150°	2.8	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	711.8	20.4
0°-40°	1170.4	33.6
0°-60°	2142.9	61.4
0°-90°	3099.1	88.9
90°-120°	329.3	9.4
90°-150°	388.8	11.1
90°-180°	389.0	11.2
0°-180°	3488.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	914	914	914	914	914	
5°	917	913	905	913	912	87
15°	874	877	877	889	888	246
25°	795	804	816	832	836	366
35°	685	708	733	762	771	428
45°	562	598	644	685	698	434
55°	431	478	547	595	612	385
65°	294	359	437	492	509	292
75°	163	237	322	379	396	172
85°	48	130	215	270	289	50
90°	13	90	175	228	244	9
95°	11	73	152	203	219	8
105°	7	45	114	160	175	8
115°	5	20	80	119	134	5
125°	3	3	45	81	93	3
135°	1	1	15	42	53	1
145°	0	0	0	8	15	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°	914.1	914.1	914.1	914.1	914.1
2.5°	920.8	916.8	907.5	914.1	911.5
5°	916.8	912.8	904.9	912.8	911.5
7.5°	910.2	907.5	900.9	910.2	908.8
10°	902.2	899.6	895.6	906.2	904.9
12.5°	889.0	890.3	887.6	898.2	896.9
15°	874.4	877.0	877.0	889.0	887.6
17.5°	855.8	861.1	865.1	877.0	877.0
20°	837.3	843.9	849.2	863.8	863.8
22.5°	817.4	825.4	833.3	847.9	850.5
25°	794.9	804.2	816.1	832.0	836.0
27.5°	768.4	783.0	796.2	816.1	818.7
30°	741.9	759.1	776.3	797.5	801.5
32.5°	712.8	732.6	753.8	779.0	786.9
35°	684.9	707.5	732.6	761.8	771.0
37.5°	654.5	679.6	711.4	743.2	752.5
40°	624.0	653.1	688.9	723.4	735.3
42.5°	594.8	624.0	666.4	704.8	716.7
45°	561.7	597.5	643.9	684.9	698.2
47.5°	529.9	568.4	621.3	663.7	678.3
50°	496.8	537.9	597.5	642.5	657.1
52.5°	465.0	508.7	572.3	618.7	634.6
55°	430.6	478.3	547.2	594.8	612.1
57.5°	397.4	450.4	519.3	571.0	588.2
60°	361.7	418.6	494.2	544.5	563.1
62.5°	329.9	389.5	465.0	519.3	536.6
65°	294.1	359.0	437.2	491.5	508.7
67.5°	262.3	329.9	409.4	463.7	482.2
70°	227.9	296.8	378.9	435.9	451.8
72.5°	196.1	267.6	351.1	406.7	426.6
75°	163.0	237.1	321.9	378.9	396.1
77.5°	131.2	208.0	294.1	351.1	369.6
80°	99.4	180.2	266.3	321.9	340.5
82.5°	72.9	152.4	239.8	295.4	312.7
85°	47.7	129.8	214.6	270.3	288.8
87.5°	29.1	108.6	193.4	247.7	265.0
90°	13.2	90.1	174.9	227.9	243.8
92.5°	11.9	82.1	163.0	214.6	230.5
95°	10.6	72.9	152.4	202.7	218.6
97.5°	9.3	66.2	143.1	192.1	208.0
100°	9.3	58.3	132.5	181.5	196.1
102.5°	7.9	51.7	123.2	170.9	185.5
105°	6.6	45.0	113.9	160.3	174.9
107.5°	6.6	38.4	104.7	149.7	164.3
110°	5.3	31.8	96.7	139.1	153.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.3	26.5	87.4	129.8	144.4
115°	5.3	19.9	79.5	119.2	133.8
117.5°	4.0	14.6	70.2	110.0	123.2
120°	4.0	9.3	62.3	99.4	113.9
122.5°	4.0	5.3	54.3	90.1	102.0
125°	2.6	2.6	45.0	80.8	92.7
127.5°	2.6	1.3	37.1	70.2	82.1
130°	2.6	1.3	29.1	60.9	71.5
132.5°	2.6	1.3	21.2	51.7	62.3
135°	1.3	1.3	14.6	42.4	53.0
137.5°	1.3	1.3	7.9	33.1	42.4
140°	1.3	0.0	2.6	23.8	31.8
142.5°	1.3	0.0	0.0	15.9	22.5
145°	0.0	0.0	0.0	7.9	14.6
147.5°	0.0	0.0	0.0	1.3	5.3
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)