

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: P987479

Luminaire Tested: S122DR-B485DB27-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P987479
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-B485DB27-4F0-XX-W2A-D
Description: Define 2 Direct Recessed with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

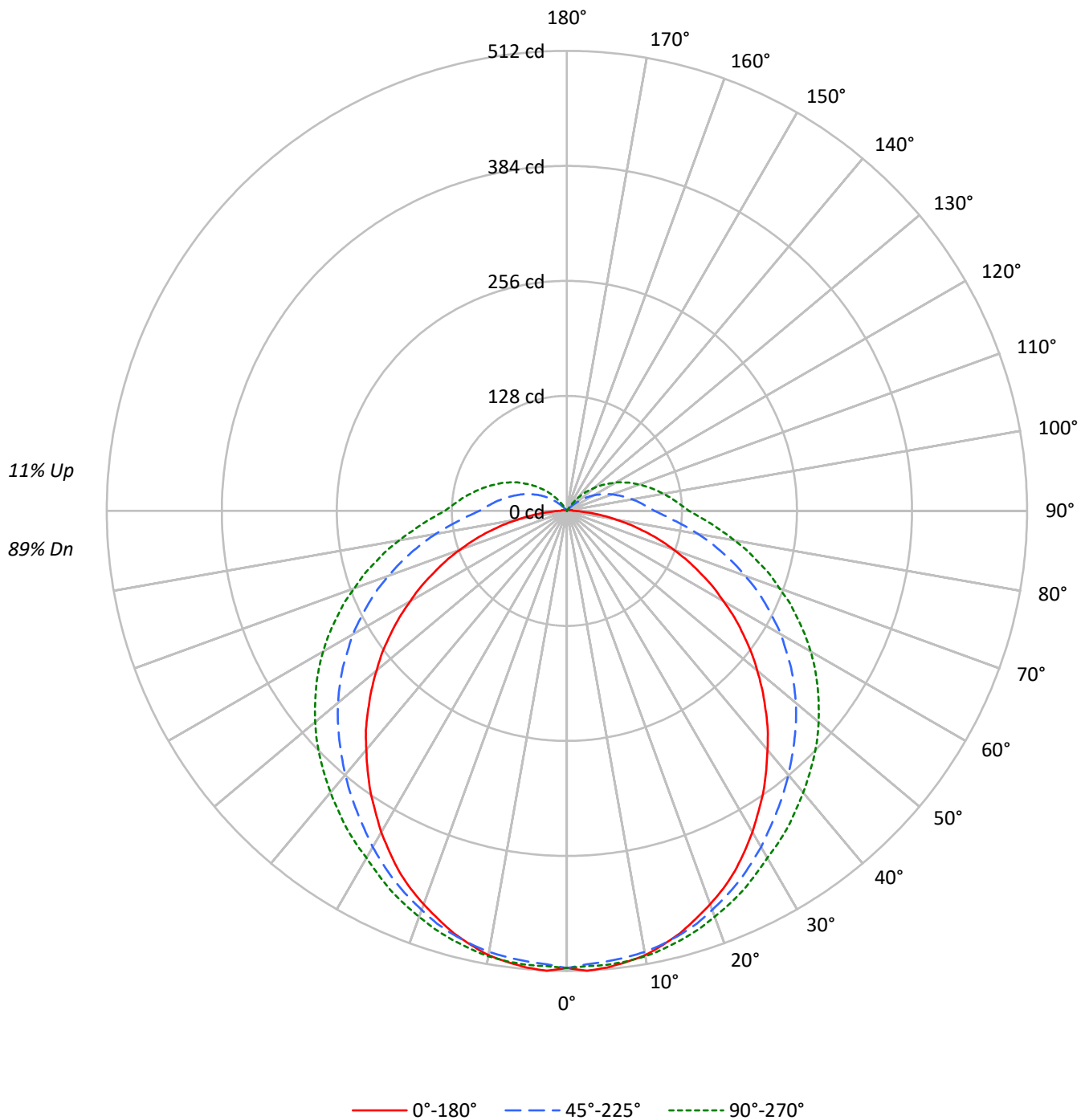
Lumens per Lamp: N/A
Luminaire Lumens: 1941.0 lumens
Efficiency: N/A
Efficacy: 80.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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°	8052	8052	8052
5°	8107	8000	8059
10°	8070	8011	8093
15°	7974	7999	8094
20°	7848	7961	8097
25°	7725	7931	8125
30°	7547	7896	8152
35°	7366	7878	8292
40°	7174	7922	8456
45°	6998	8021	8697
50°	6809	8188	9006
55°	6612	8403	9400
60°	6373	8706	9919
65°	6131	9113	10604
70°	5869	9761	11635
75°	5547	10954	13480
80°	5041	13510	17274
85°	4813	21686	29186

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 53491 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.2	2.5
10°-20°	138.3	7.1
20°-30°	209.6	10.8
30°-40°	255.2	13.1
40°-50°	274.6	14.1
50°-60°	266.6	13.7
60°-70°	232.9	12.0
70°-80°	179.2	9.2
80°-90°	120.0	6.2
90°-100°	82.8	4.3
100°-110°	60.5	3.1
110°-120°	39.9	2.1
120°-130°	22.2	1.1
130°-140°	9.3	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°	396.1	20.4
0°-40°	651.3	33.6
0°-60°	1192.5	61.4
0°-90°	1724.6	88.9
90°-120°	183.2	9.4
90°-150°	216.4	11.1
90°-180°	216.0	11.1
0°-180°	1941.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	509	509	509	509	509	
5°	510	508	504	508	507	48
15°	487	488	488	495	494	137
25°	442	448	454	463	465	203
35°	381	394	408	424	429	238
45°	313	332	358	381	388	241
55°	240	266	304	331	341	214
65°	164	200	243	274	283	163
75°	91	132	179	211	220	96
85°	26	72	119	150	161	28
90°	7	50	97	127	136	5
95°	6	40	85	113	122	5
105°	4	25	63	89	97	4
115°	3	11	44	66	74	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°	508.7	508.7	508.7	508.7	508.7
2.5°	512.4	510.2	505.0	508.7	507.2
5°	510.2	508.0	503.5	508.0	507.2
7.5°	506.5	505.0	501.3	506.5	505.7
10°	502.1	500.6	498.4	504.3	503.5
12.5°	494.7	495.4	493.9	499.8	499.1
15°	486.6	488.1	488.1	494.7	493.9
17.5°	476.3	479.2	481.4	488.1	488.1
20°	465.9	469.6	472.6	480.7	480.7
22.5°	454.9	459.3	463.7	471.8	473.3
25°	442.3	447.5	454.1	463.0	465.2
27.5°	427.6	435.7	443.1	454.1	455.6
30°	412.9	422.4	432.0	443.8	446.0
32.5°	396.6	407.7	419.5	433.5	437.9
35°	381.2	393.7	407.7	423.9	429.1
37.5°	364.2	378.2	395.9	413.6	418.8
40°	347.2	363.5	383.4	402.5	409.2
42.5°	331.0	347.2	370.8	392.2	398.8
45°	312.6	332.5	358.3	381.2	388.5
47.5°	294.9	316.3	345.8	369.4	377.5
50°	276.5	299.3	332.5	357.6	365.7
52.5°	258.8	283.1	318.5	344.3	353.1
55°	239.6	266.1	304.5	331.0	340.6
57.5°	221.2	250.7	289.0	317.7	327.3
60°	201.3	233.0	275.0	303.0	313.3
62.5°	183.6	216.7	258.8	289.0	298.6
65°	163.7	199.8	243.3	273.5	283.1
67.5°	146.0	183.6	227.8	258.0	268.4
70°	126.8	165.1	210.9	242.6	251.4
72.5°	109.1	148.9	195.4	226.3	237.4
75°	90.7	132.0	179.1	210.9	220.4
77.5°	73.0	115.7	163.7	195.4	205.7
80°	55.3	100.3	148.2	179.1	189.5
82.5°	40.5	84.8	133.4	164.4	174.0
85°	26.5	72.2	119.4	150.4	160.7
87.5°	16.2	60.5	107.6	137.9	147.4
90°	7.4	50.1	97.3	126.8	135.7
92.5°	6.6	45.7	90.7	119.4	128.3
95°	5.9	40.5	84.8	112.8	121.6
97.5°	5.2	36.9	79.6	106.9	115.7
100°	5.2	32.4	73.7	101.0	109.1
102.5°	4.4	28.8	68.6	95.1	103.2
105°	3.7	25.1	63.4	89.2	97.3
107.5°	3.7	21.4	58.2	83.3	91.4
110°	2.9	17.7	53.8	77.4	85.5

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.9	14.7	48.7	72.2	80.4
115°	2.9	11.1	44.2	66.4	74.5
117.5°	2.2	8.1	39.1	61.2	68.6
120°	2.2	5.2	34.7	55.3	63.4
122.5°	2.2	2.9	30.2	50.1	56.8
125°	1.5	1.5	25.1	45.0	51.6
127.5°	1.5	0.7	20.6	39.1	45.7
130°	1.5	0.7	16.2	33.9	39.8
132.5°	1.5	0.7	11.8	28.8	34.7
135°	0.7	0.7	8.1	23.6	29.5
137.5°	0.7	0.7	4.4	18.4	23.6
140°	0.7	0.0	1.5	13.3	17.7
142.5°	0.7	0.0	0.0	8.8	12.5
145°	0.0	0.0	0.0	4.4	8.1
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)