

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P1058556

Luminaire Tested: S122RDR-H865D927-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058556
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H865D927-X4F0-XX-UDD-BVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

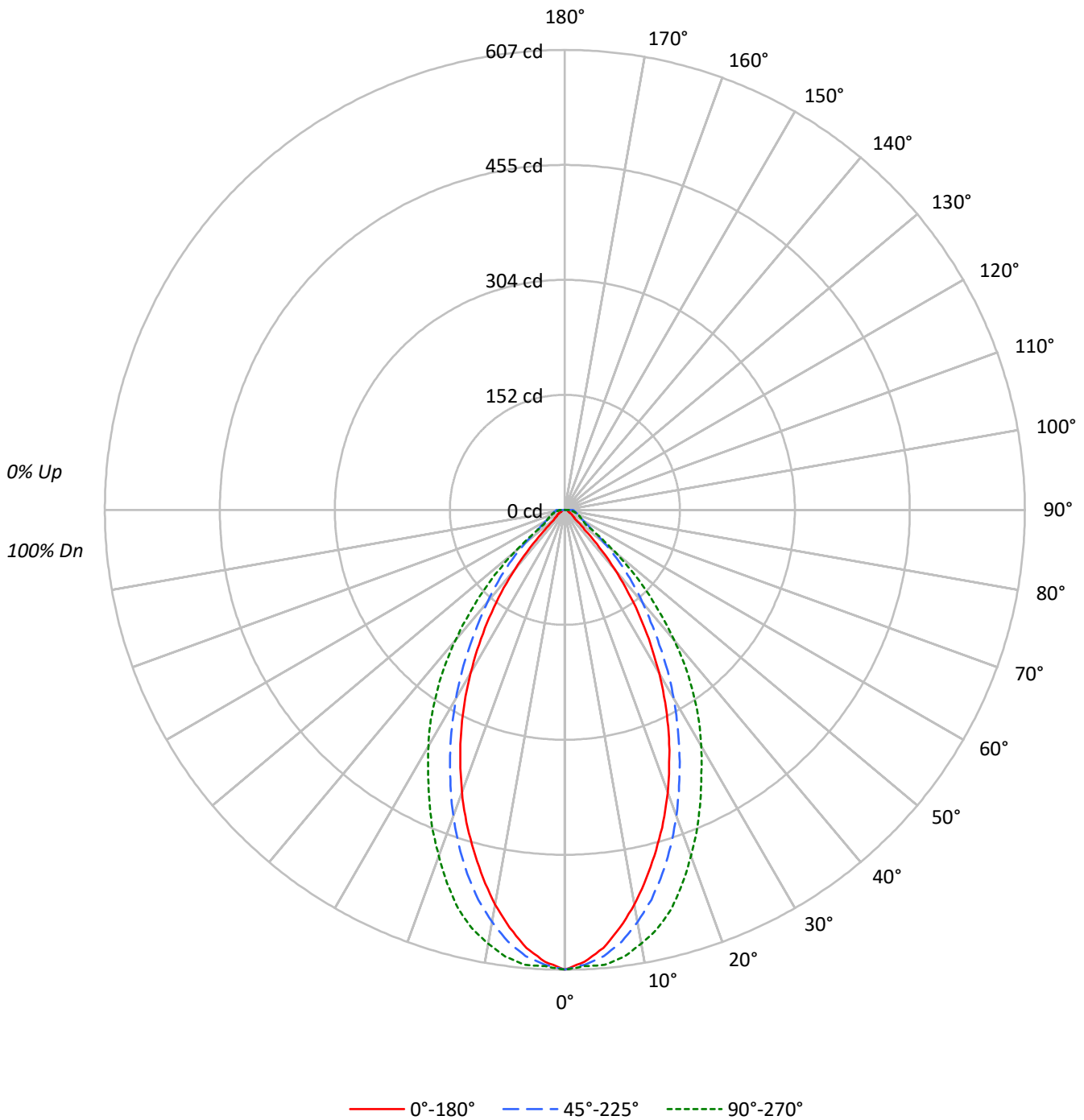
Lumens per Lamp: N/A
Luminaire Lumens: 660.4 lumens
Efficiency: N/A
Efficacy: 21.2 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
Input Voltage (V): 120
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									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100																
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90			90																
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81			81																
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	74			74																
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67			67																
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61			61																
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56			56																
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52			52																
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48			48																
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45			45																
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42			42																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11195	11195	11195
5°	10753	10951	11166
10°	9912	10349	10896
15°	8883	9494	10404
20°	7796	8444	9549
25°	6601	7293	8616
30°	5295	6122	7673
35°	3915	4897	6648
40°	2455	3835	5401
45°	963	2889	4003
50°	474	1952	2452
55°	373	1280	1094
60°	288	1041	1004
65°	214	974	974
70°	264	993	993
75°	278	1105	1041
80°	414	1445	1137
85°	826	2456	1651

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 4526 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.4	8.4
10°-20°	140.1	21.2
20°-30°	167.6	25.4
30°-40°	141.1	21.4
40°-50°	80.3	12.2
50°-60°	31.7	4.8
60°-70°	20.0	3.0
70°-80°	14.8	2.2
80°-90°	9.4	1.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	363.1	55.0
0°-40°	504.2	76.3
0°-60°	616.1	93.3
0°-90°	660.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	660.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	607	607	607	607	607	
5°	580	593	591	598	603	54
15°	465	482	497	526	545	130
25°	324	339	358	395	423	148
35°	174	189	217	264	295	108
45°	37	65	111	139	153	35
55°	12	25	40	41	34	10
65°	5	22	22	21	22	5
75°	4	16	16	15	15	4
85°	4	11	12	11	8	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	606.7	606.7	606.7	606.7	606.7
2.5°	597.0	607.7	600.9	601.8	602.8
5°	580.5	593.1	591.2	598.0	602.8
7.5°	556.2	569.8	574.7	586.3	595.1
10°	529.0	544.6	552.3	570.8	581.5
12.5°	498.0	515.5	527.1	550.4	565.9
15°	465.0	481.5	497.0	526.1	544.6
17.5°	432.0	448.5	465.0	497.0	516.4
20°	397.0	412.6	430.0	464.0	486.3
22.5°	360.1	376.6	394.1	429.1	456.2
25°	324.2	338.8	358.2	395.1	423.2
27.5°	286.4	300.9	322.3	360.1	390.2
30°	248.5	263.1	287.3	326.2	360.1
32.5°	210.6	226.2	252.4	295.1	329.1
35°	173.8	189.3	217.4	264.0	295.1
37.5°	137.8	155.3	186.4	232.0	261.1
40°	101.9	122.3	159.2	200.0	224.2
42.5°	68.0	93.2	134.0	167.9	188.3
45°	36.9	65.0	110.7	138.8	153.4
47.5°	20.4	41.7	88.3	110.7	119.4
50°	16.5	29.1	68.0	84.5	85.4
52.5°	13.6	26.2	50.5	60.2	55.3
55°	11.6	25.2	39.8	40.8	34.0
57.5°	9.7	24.3	33.0	29.1	29.1
60°	7.8	24.3	28.2	26.2	27.2
62.5°	5.8	24.3	25.2	23.3	24.3
65°	4.9	22.3	22.3	21.4	22.3
67.5°	4.9	20.4	20.4	19.4	20.4
70°	4.9	19.4	18.4	18.4	18.4
72.5°	3.9	17.5	17.5	16.5	16.5
75°	3.9	15.5	15.5	14.6	14.6
77.5°	3.9	14.6	14.6	13.6	12.6
80°	3.9	12.6	13.6	12.6	10.7
82.5°	3.9	11.6	12.6	11.6	8.7
85°	3.9	10.7	11.6	10.7	7.8
87.5°	2.9	10.7	10.7	8.7	5.8
90°	0.0	0.0	0.0	0.0	0.0

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	6.09	7.31	6.46	7.63	7.94	8.10	9.32	8.47	9.64	9.95
	3H	7.64	8.72	8.02	9.05	9.42	10.08	11.16	10.46	11.49	11.86
	4H	8.19	9.20	8.60	9.56	9.94	10.99	12.01	11.40	12.36	12.74
	6H	8.75	9.68	9.17	10.05	10.45	11.88	12.81	12.29	13.18	13.57
	8H	9.04	9.92	9.48	10.32	10.72	12.28	13.16	12.71	13.55	13.96
	12H	9.41	10.25	9.84	10.63	11.06	12.72	13.57	13.16	13.95	14.38
4H	2H	7.27	8.28	7.68	8.64	9.02	8.72	9.73	9.13	10.09	10.47
	3H	9.47	10.31	9.89	10.71	11.12	10.97	11.80	11.38	12.21	12.61
	4H	10.52	11.27	10.96	11.69	12.14	12.04	12.79	12.48	13.21	13.66
	6H	11.42	12.07	11.89	12.52	12.98	13.15	13.80	13.62	14.25	14.72
	8H	11.81	12.41	12.28	12.86	13.33	13.67	14.28	14.14	14.73	15.20
	12H	12.23	12.76	12.72	13.25	13.72	14.25	14.79	14.74	15.27	15.75
8H	4H	11.33	11.93	11.80	12.38	12.85	12.54	13.14	13.01	13.59	14.06
	6H	12.71	13.20	13.21	13.70	14.18	13.93	14.43	14.44	14.93	15.41
	8H	13.42	13.87	13.95	14.39	14.88	14.67	15.11	15.19	15.63	16.12
	12H	14.18	14.57	14.69	15.07	15.64	15.50	15.90	16.02	16.39	16.96
12H	4H	11.49	12.02	11.98	12.51	12.98	12.64	13.17	13.12	13.66	14.13
	6H	13.04	13.49	13.56	14.00	14.49	14.15	14.60	14.67	15.11	15.61
	8H	13.95	14.34	14.47	14.84	15.41	15.03	15.42	15.55	15.92	16.49