

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: P1060672

Luminaire Tested: S124RDR-H1020D930-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060672
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-38)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H1020D930-X4F0-XX-UDD-SVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

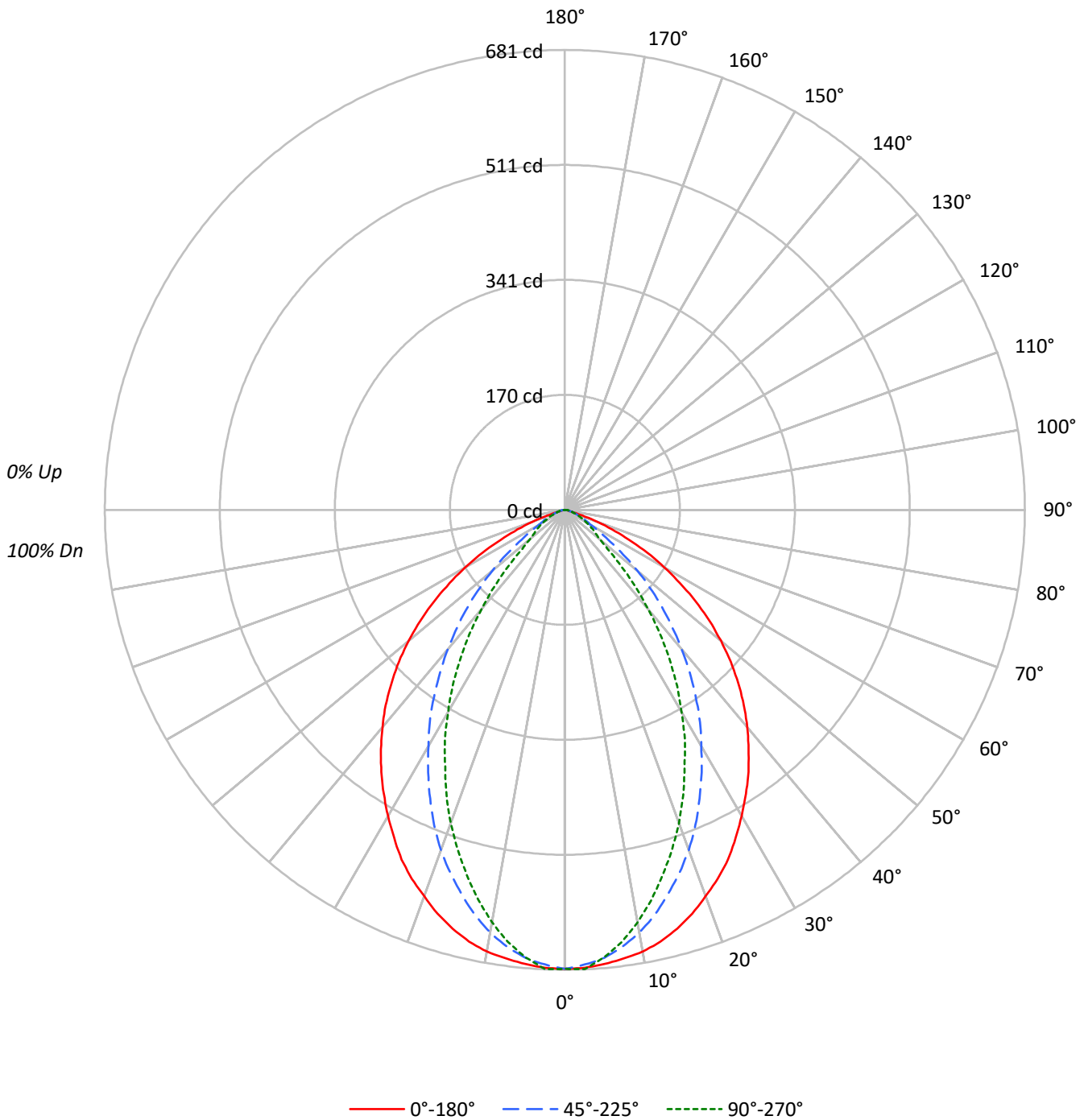
Lumens per Lamp: N/A
Luminaire Lumens: 1002.0 lumens
Efficiency: N/A
Efficacy: 32.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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									20									20
RC	80									70									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	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																												
1	112	108	105	102	109	106	103	101	102	100	97	98	96	94	95	93	92	90																												
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80																												
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71																												
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63																												
5	84	74	66	61	82	73	66	60	71	65	60	69	63	59	67	62	59	57																												
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51																												
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	48	47																												
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43																												
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39																												
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5852	5852	5852
5°	5834	5759	5751
10°	5809	5558	5424
15°	5726	5257	4992
20°	5579	4913	4526
25°	5430	4484	3984
30°	5206	4017	3436
35°	4981	3552	2837
40°	4723	3024	2152
45°	4418	2471	1446
50°	4039	1873	898
55°	3549	1236	761
60°	2935	758	627
65°	2125	585	507
70°	1156	433	385
75°	256	319	349
80°	188	238	283
85°	188	188	287

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4418 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.0	6.3
10°-20°	167.2	16.7
20°-30°	221.6	22.1
30°-40°	219.9	21.9
40°-50°	169.2	16.9
50°-60°	100.9	10.1
60°-70°	45.8	4.6
70°-80°	11.9	1.2
80°-90°	2.6	0.3
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°	451.8	45.1
0°-40°	671.6	67.0
0°-60°	941.7	94.0
0°-90°	1002.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1002.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	680	680	680	680	680	
5°	675	676	666	666	665	64
15°	642	626	590	570	560	181
25°	572	530	472	433	419	262
35°	474	414	338	286	270	296
45°	363	292	203	142	119	279
55°	236	168	82	52	51	211
65°	104	62	29	25	25	105
75°	8	10	10	10	10	16
85°	2	2	2	3	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	679.6	679.6	679.6	679.6	679.6
2.5°	678.7	679.6	673.9	678.7	680.6
5°	674.9	675.8	666.2	666.2	665.3
7.5°	670.1	668.2	652.8	647.1	645.2
10°	664.3	657.6	635.6	624.1	620.3
12.5°	654.8	644.2	614.5	598.3	591.6
15°	642.3	626.0	589.7	569.6	560.0
17.5°	627.0	606.9	563.8	538.0	527.4
20°	608.8	582.0	536.1	503.5	493.9
22.5°	591.6	558.1	505.4	468.1	457.6
25°	571.5	530.3	471.9	432.7	419.3
27.5°	547.5	503.5	438.4	398.2	384.8
30°	523.6	474.8	404.0	361.8	345.6
32.5°	498.7	445.1	372.4	324.5	309.2
35°	473.8	414.5	337.9	286.2	269.9
37.5°	447.0	383.9	303.4	249.8	231.7
40°	420.2	354.2	269.0	214.4	191.4
42.5°	392.5	323.5	235.5	178.0	155.1
45°	362.8	292.0	202.9	141.7	118.7
47.5°	333.1	262.3	170.4	106.3	85.2
50°	301.5	230.7	139.8	77.5	67.0
52.5°	269.9	200.1	109.1	60.3	57.4
55°	236.4	168.5	82.3	51.7	50.7
57.5°	202.0	139.8	59.3	45.0	43.1
60°	170.4	113.0	44.0	38.3	36.4
62.5°	137.8	85.2	36.4	31.6	29.7
65°	104.3	62.2	28.7	24.9	24.9
67.5°	75.6	42.1	23.0	20.1	19.1
70°	45.9	25.8	17.2	16.3	15.3
72.5°	23.0	15.3	13.4	12.4	12.4
75°	7.7	9.6	9.6	10.5	10.5
77.5°	5.7	6.7	6.7	7.7	7.7
80°	3.8	4.8	4.8	5.7	5.7
82.5°	2.9	2.9	3.8	3.8	4.8
85°	1.9	1.9	1.9	2.9	2.9
87.5°	1.0	1.0	1.0	1.9	1.9
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	15.26	16.59	15.62	16.91	17.22	6.81	8.14	7.17	8.46	8.77
	3H	15.77	16.95	16.15	17.28	17.64	7.62	8.80	8.00	9.13	9.50
	4H	15.73	16.83	16.14	17.18	17.57	7.90	9.00	8.31	9.35	9.74
	6H	15.67	16.68	16.08	17.05	17.44	8.08	9.08	8.49	9.45	9.85
	8H	15.63	16.58	16.06	16.98	17.38	8.14	9.10	8.57	9.49	9.89
	12H	15.59	16.50	16.02	16.89	17.32	8.19	9.10	8.62	9.48	9.91
4H	2H	15.10	16.20	15.50	16.55	16.93	7.25	8.35	7.65	8.70	9.08
	3H	15.65	16.55	16.07	16.95	17.36	8.21	9.11	8.62	9.51	9.91
	4H	15.62	16.42	16.06	16.84	17.28	8.57	9.37	9.01	9.79	10.23
	6H	15.57	16.26	16.03	16.70	17.17	8.83	9.51	9.29	9.96	10.42
	8H	15.52	16.16	15.99	16.61	17.08	8.91	9.55	9.38	10.00	10.47
	12H	15.49	16.05	15.97	16.53	17.01	8.99	9.55	9.48	10.04	10.51
8H	4H	15.51	16.15	15.98	16.60	17.07	8.66	9.30	9.13	9.75	10.22
	6H	15.45	15.97	15.95	16.47	16.95	8.97	9.49	9.48	9.99	10.47
	8H	15.40	15.87	15.93	16.39	16.88	9.10	9.57	9.63	10.09	10.58
	12H	15.37	15.79	15.89	16.28	16.85	9.24	9.66	9.76	10.15	10.72
12H	4H	15.47	16.03	15.96	16.52	16.99	8.64	9.20	9.12	9.68	10.16
	6H	15.40	15.86	15.92	16.38	16.87	8.95	9.42	9.47	9.94	10.43
	8H	15.37	15.78	15.88	16.28	16.85	9.12	9.54	9.64	10.03	10.60