

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: P1060705

Luminaire Tested: S124RDR-H1195D830-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060705
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-39)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H1195D830-X4F0-XX-UDD-BVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

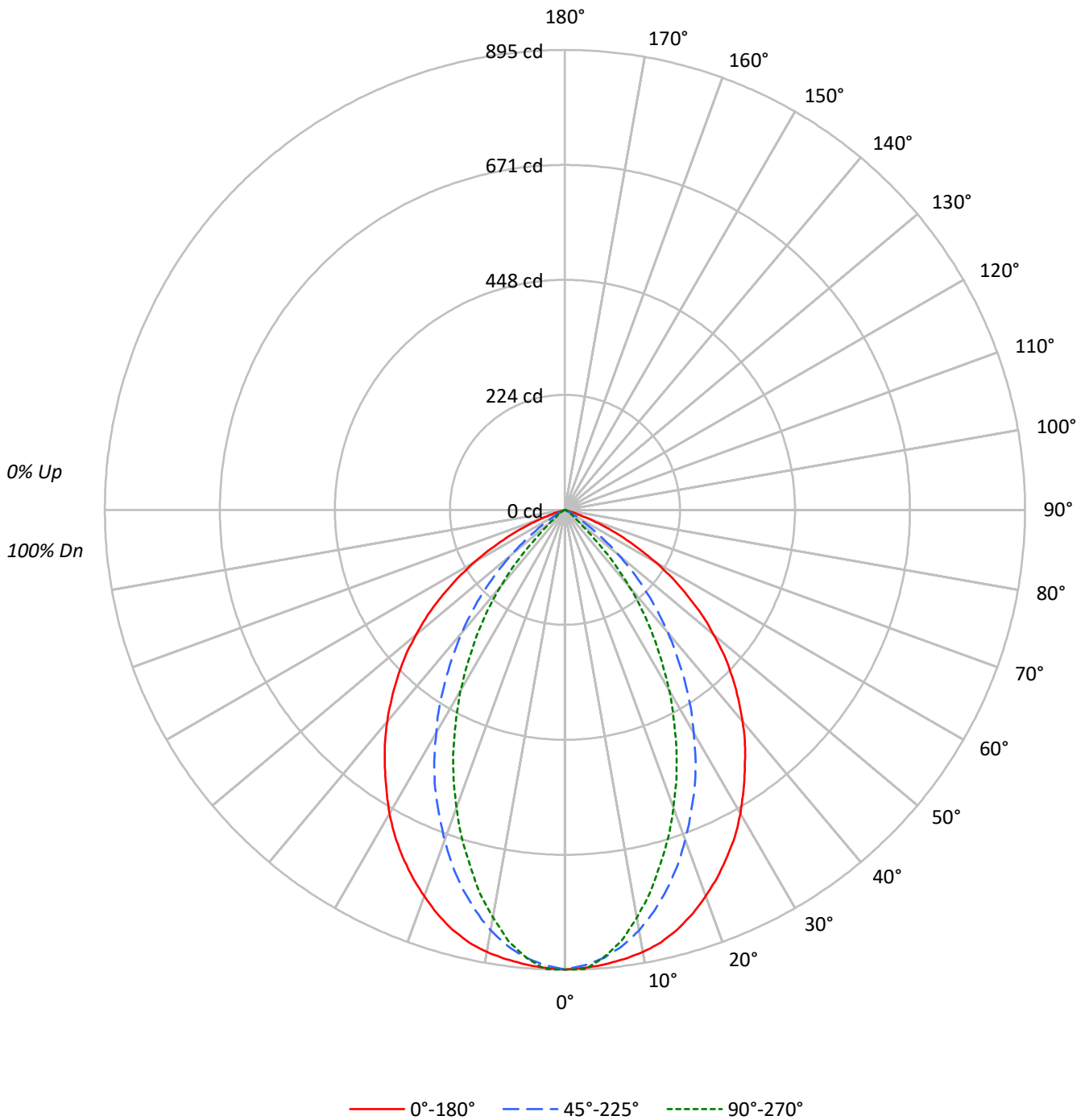
Lumens per Lamp: N/A
Luminaire Lumens: 1168.2 lumens
Efficiency: N/A
Efficacy: 32.0 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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	
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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	112	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93	91				91
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82				82
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74				74
4	92	83	76	71	90	82	76	71	79	74	70	77	73	69	75	71	68	66				66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60				60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55				55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50				50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	47	46				46
9	67	56	49	44	66	56	49	44	54	48	44	54	48	44	53	48	44	42				42
10	64	52	46	41	63	52	45	41	51	45	41	50	45	41	49	44	41	39				39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7704	7704	7704
5°	7677	7565	7554
10°	7641	7269	7042
15°	7538	6823	6373
20°	7333	6267	5651
25°	7087	5675	4876
30°	6787	4975	4036
35°	6415	4267	3139
40°	6045	3503	2194
45°	5604	2693	1086
50°	5057	1818	363
55°	4367	932	252
60°	3496	334	177
65°	2396	183	79
70°	1075	98	65
75°	0	43	43
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5604 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.6	7.1
10°-20°	216.6	18.5
20°-30°	280.3	24.0
30°-40°	266.4	22.8
40°-50°	188.6	16.1
50°-60°	96.8	8.3
60°-70°	33.9	2.9
70°-80°	2.9	0.3
80°-90°	0.0	0.0
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°	579.5	49.6
0°-40°	845.9	72.4
0°-60°	1131.3	96.8
0°-90°	1168.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1168.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	895	895	895	895	895	
5°	888	889	875	875	874	84
15°	846	820	765	729	715	238
25°	746	688	597	534	513	343
35°	610	521	406	327	299	382
45°	460	354	221	127	89	354
55°	291	191	62	18	17	260
65°	118	57	9	5	4	117
75°	0	1	1	1	1	10
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	894.6	894.6	894.6	894.6	894.6
2.5°	892.0	894.6	886.8	893.3	894.6
5°	888.1	889.4	875.2	875.2	873.9
7.5°	881.7	879.1	855.8	846.8	845.5
10°	873.9	864.9	831.3	811.9	805.4
12.5°	862.3	845.5	800.2	771.8	764.0
15°	845.5	819.6	765.3	729.1	714.9
17.5°	824.8	791.2	726.5	682.6	668.4
20°	800.2	757.6	683.9	634.8	616.7
22.5°	774.4	725.2	639.9	584.3	566.2
25°	745.9	687.8	597.3	533.9	513.2
27.5°	716.2	647.7	550.7	484.8	457.6
30°	682.6	607.6	500.3	431.8	405.9
32.5°	646.4	563.6	455.1	381.4	350.3
35°	610.2	521.0	405.9	327.1	298.6
37.5°	575.3	480.9	356.8	274.1	246.9
40°	537.8	437.0	311.6	226.2	195.2
42.5°	499.0	394.3	265.0	177.1	143.5
45°	460.2	354.2	221.1	126.7	89.2
47.5°	421.4	311.6	178.4	80.2	47.8
50°	377.5	270.2	135.7	42.7	27.1
52.5°	336.1	231.4	97.0	24.6	20.7
55°	290.9	191.3	62.1	18.1	16.8
57.5°	248.2	152.5	34.9	14.2	12.9
60°	203.0	117.6	19.4	11.6	10.3
62.5°	157.7	85.3	12.9	7.8	6.5
65°	117.6	56.9	9.0	5.2	3.9
67.5°	77.6	32.3	6.5	2.6	2.6
70°	42.7	15.5	3.9	2.6	2.6
72.5°	15.5	5.2	2.6	1.3	1.3
75°	0.0	1.3	1.3	1.3	1.3
77.5°	0.0	0.0	0.0	0.0	1.3
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	15.62	16.88	15.99	17.19	17.50	0.00	0.00	0.00	0.00	0.16
	3H	15.90	17.00	16.28	17.33	17.70	0.00	0.00	0.00	0.00	0.16
	4H	15.82	16.85	16.23	17.20	17.58	0.00	0.00	0.00	0.00	0.10
	6H	15.74	16.67	16.15	17.05	17.44	0.00	0.00	0.00	0.00	0.00
	8H	15.69	16.58	16.12	16.97	17.37	0.00	0.00	0.00	0.00	0.00
	12H	15.64	16.49	16.08	16.87	17.30	0.00	0.00	0.00	0.00	0.00
4H	2H	15.39	16.42	15.80	16.77	17.15	0.00	0.00	0.00	0.11	0.49
	3H	15.68	16.51	16.09	16.91	17.31	0.00	0.00	0.00	0.11	0.51
	4H	15.58	16.32	16.02	16.74	17.19	0.00	0.00	0.00	0.02	0.46
	6H	15.50	16.13	15.96	16.58	17.04	0.00	0.00	0.00	0.00	0.35
	8H	15.44	16.02	15.91	16.47	16.94	0.00	0.00	0.00	0.00	0.25
	12H	15.38	15.90	15.87	16.39	16.86	0.00	0.00	0.00	0.00	0.16
8H	4H	15.44	16.02	15.91	16.47	16.95	0.00	0.00	0.00	0.00	0.43
	6H	15.33	15.80	15.83	16.30	16.79	0.00	0.00	0.00	0.00	0.30
	8H	15.26	15.69	15.79	16.21	16.70	0.00	0.00	0.00	0.00	0.21
	12H	15.21	15.59	15.73	16.08	16.66	0.00	0.00	0.00	0.00	0.17
12H	4H	15.38	15.90	15.87	16.39	16.86	0.00	0.00	0.00	0.00	0.35
	6H	15.26	15.69	15.79	16.21	16.70	0.00	0.00	0.00	0.00	0.21
	8H	15.21	15.59	15.73	16.08	16.66	0.00	0.00	0.00	0.00	0.17