

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: P1060750

Luminaire Tested: S124RDR-H1195D930-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060750
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-H1195D930-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, 90 CRI LEDS
Ballast/Driver: -

Summary

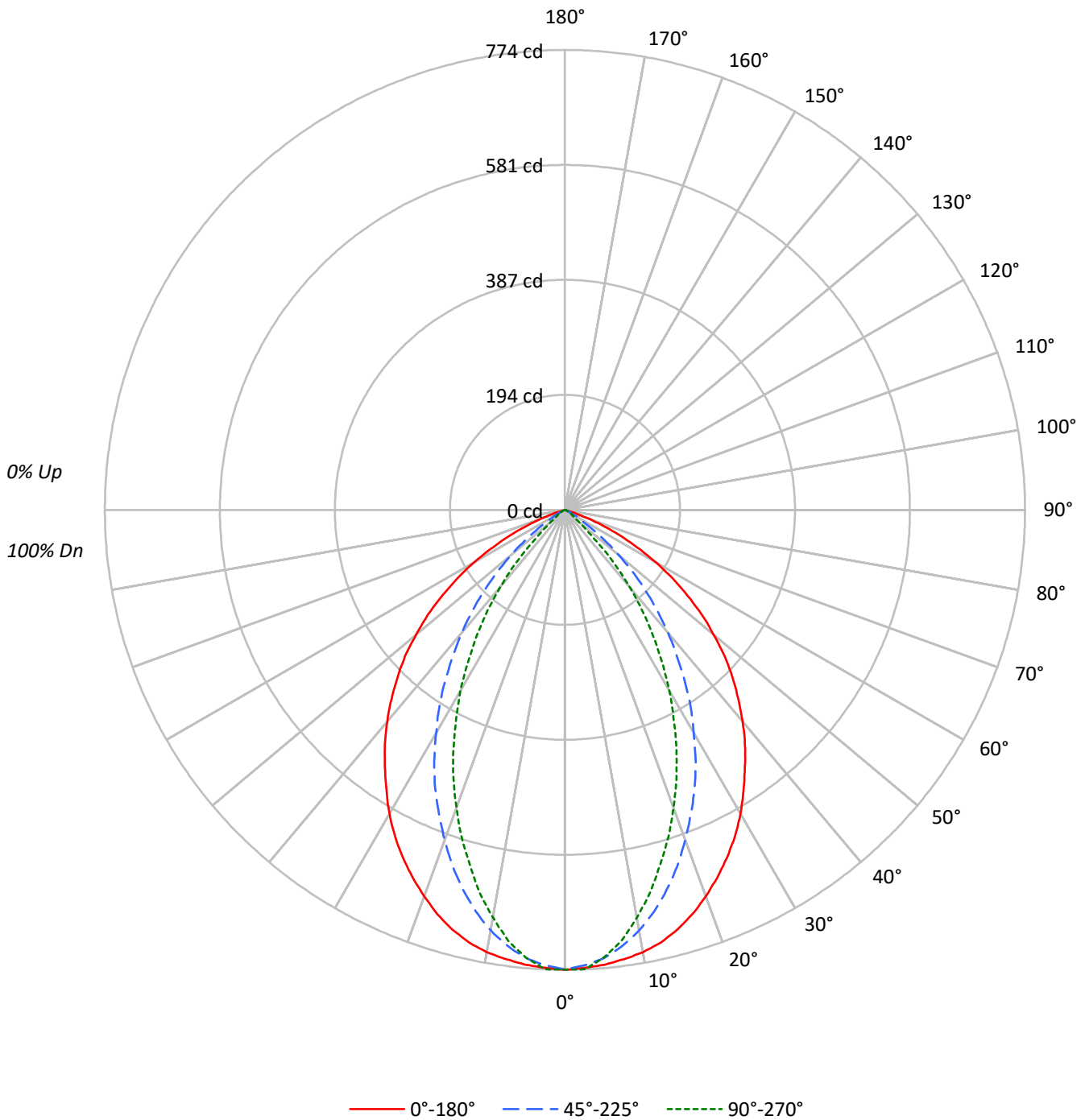
Lumens per Lamp: N/A
Luminaire Lumens: 1010.4 lumens
Efficiency: N/A
Efficacy: 27.7 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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										
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	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°	6663	6663	6663
5°	6640	6544	6534
10°	6610	6287	6092
15°	6519	5902	5513
20°	6343	5421	4888
25°	6130	4908	4218
30°	5871	4303	3491
35°	5548	3691	2715
40°	5229	3029	1899
45°	4848	2328	940
50°	4374	1573	315
55°	3777	806	218
60°	3024	289	153
65°	2074	159	69
70°	929	86	55
75°	0	37	37
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4848 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.5	7.1
10°-20°	187.3	18.5
20°-30°	242.5	24.0
30°-40°	230.4	22.8
40°-50°	163.2	16.1
50°-60°	83.8	8.3
60°-70°	29.3	2.9
70°-80°	2.5	0.2
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°	501.3	49.6
0°-40°	731.7	72.4
0°-60°	978.6	96.9
0°-90°	1010.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1010.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	774	774	774	774	774	
5°	768	769	757	757	756	73
15°	731	709	662	631	618	206
25°	645	595	517	462	444	297
35°	528	451	351	283	258	330
45°	398	306	191	110	77	306
55°	252	166	54	16	14	225
65°	102	49	8	4	3	101
75°	0	1	1	1	1	8
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°	773.8	773.8	773.8	773.8	773.8
2.5°	771.6	773.8	767.1	772.7	773.8
5°	768.2	769.4	757.1	757.1	755.9
7.5°	762.6	760.4	740.3	732.5	731.3
10°	755.9	748.1	719.0	702.3	696.7
12.5°	745.9	731.3	692.2	667.6	660.9
15°	731.3	709.0	662.0	630.7	618.4
17.5°	713.4	684.4	628.5	590.4	578.1
20°	692.2	655.3	591.6	549.1	533.4
22.5°	669.8	627.3	553.5	505.4	489.8
25°	645.2	594.9	516.6	461.8	443.9
27.5°	619.5	560.2	476.4	419.3	395.9
30°	590.4	525.6	432.8	373.5	351.1
32.5°	559.1	487.6	393.6	329.9	303.0
35°	527.8	450.7	351.1	282.9	258.3
37.5°	497.6	416.0	308.6	237.1	213.6
40°	465.2	378.0	269.5	195.7	168.9
42.5°	431.6	341.1	229.2	153.2	124.1
45°	398.1	306.4	191.2	109.6	77.2
47.5°	364.5	269.5	154.3	69.3	41.4
50°	326.5	233.7	117.4	36.9	23.5
52.5°	290.7	200.2	83.9	21.2	17.9
55°	251.6	165.5	53.7	15.7	14.5
57.5°	214.7	132.0	30.2	12.3	11.2
60°	175.6	101.8	16.8	10.1	8.9
62.5°	136.4	73.8	11.2	6.7	5.6
65°	101.8	49.2	7.8	4.5	3.4
67.5°	67.1	28.0	5.6	2.2	2.2
70°	36.9	13.4	3.4	2.2	2.2
72.5°	13.4	4.5	2.2	1.1	1.1
75°	0.0	1.1	1.1	1.1	1.1
77.5°	0.0	0.0	0.0	0.0	1.1
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	15.12	16.38	15.48	16.69	17.00	0.00	0.00	0.00	0.00	0.00
	3H	15.40	16.50	15.78	16.83	17.20	0.00	0.00	0.00	0.00	0.00
	4H	15.32	16.35	15.72	16.70	17.08	0.00	0.00	0.00	0.00	0.00
	6H	15.24	16.17	15.65	16.54	16.94	0.00	0.00	0.00	0.00	0.00
	8H	15.19	16.07	15.62	16.47	16.87	0.00	0.00	0.00	0.00	0.00
	12H	15.14	15.99	15.58	16.37	16.80	0.00	0.00	0.00	0.00	0.00
4H	2H	14.89	15.92	15.30	16.27	16.65	0.00	0.00	0.00	0.00	0.00
	3H	15.18	16.00	15.59	16.41	16.81	0.00	0.00	0.00	0.00	0.01
	4H	15.08	15.82	15.52	16.24	16.69	0.00	0.00	0.00	0.00	0.00
	6H	15.00	15.63	15.46	16.07	16.54	0.00	0.00	0.00	0.00	0.00
	8H	14.94	15.52	15.41	15.97	16.44	0.00	0.00	0.00	0.00	0.00
	12H	14.88	15.40	15.37	15.88	16.36	0.00	0.00	0.00	0.00	0.00
8H	4H	14.94	15.52	15.41	15.97	16.44	0.00	0.00	0.00	0.00	0.00
	6H	14.83	15.30	15.33	15.80	16.28	0.00	0.00	0.00	0.00	0.00
	8H	14.76	15.19	15.28	15.71	16.20	0.00	0.00	0.00	0.00	0.00
	12H	14.71	15.09	15.23	15.58	16.16	0.00	0.00	0.00	0.00	0.00
12H	4H	14.88	15.40	15.37	15.89	16.36	0.00	0.00	0.00	0.00	0.00
	6H	14.76	15.19	15.28	15.71	16.20	0.00	0.00	0.00	0.00	0.00
	8H	14.71	15.09	15.23	15.58	16.16	0.00	0.00	0.00	0.00	0.00