

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: P1060914

Luminaire Tested: S124RDR-H575D930-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060914
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-75)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H575D930-X4F0-XX-UDD-BVL-W
Description: DEFINE 4 WHITE 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

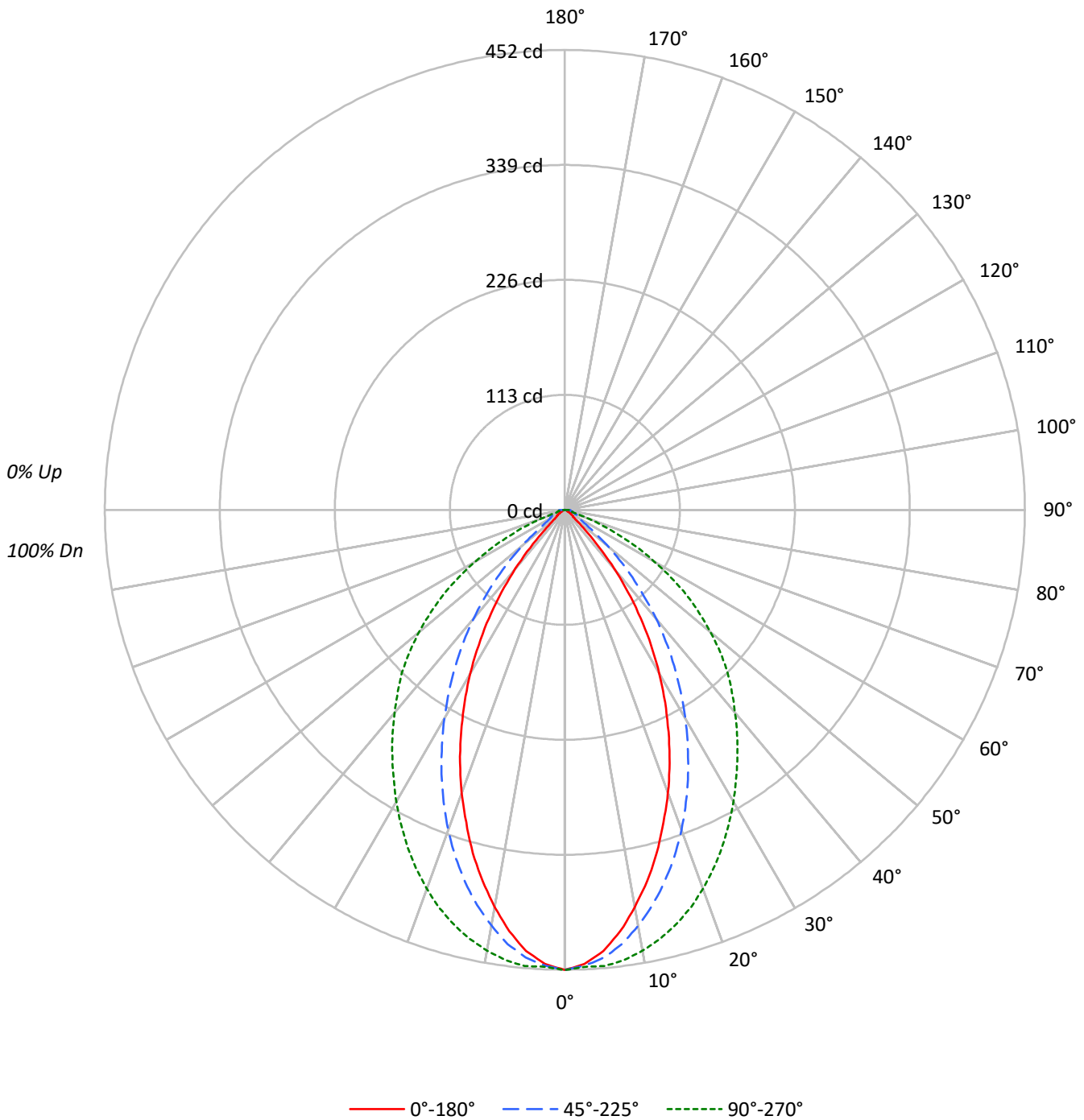
Lumens per Lamp: N/A
Luminaire Lumens: 569.8 lumens
Efficiency: N/A
Efficacy: 32.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.96
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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				
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81				
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72				
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65				
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61	59				
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54				
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49				
8	71	60	53	48	70	59	52	48	58	52	48	57	51	47	56	51	47	45				
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42				
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3894	3894	3894
5°	3762	3816	3890
10°	3466	3629	3846
15°	3113	3373	3761
20°	2713	3069	3633
25°	2289	2723	3474
30°	1846	2354	3293
35°	1367	1969	3107
40°	848	1569	2923
45°	336	1144	2753
50°	149	718	2502
55°	120	374	2190
60°	83	284	1746
65°	55	281	1200
70°	53	254	561
75°	70	246	246
80°	104	288	288
85°	207	573	415

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2753 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.5	7.3
10°-20°	107.0	18.8
20°-30°	135.1	23.7
30°-40°	124.0	21.8
40°-50°	84.4	14.8
50°-60°	46.0	8.1
60°-70°	19.9	3.5
70°-80°	7.3	1.3
80°-90°	4.7	0.8
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°	283.6	49.8
0°-40°	407.6	71.5
0°-60°	538.0	94.4
0°-90°	569.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	569.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	452	452	452	452	452	
5°	435	441	442	446	450	40
15°	349	361	378	405	422	97
25°	241	258	287	332	366	110
35°	130	149	187	247	296	80
45°	28	46	94	167	226	26
55°	8	8	25	92	146	7
65°	3	4	14	29	59	3
75°	2	7	7	7	7	2
85°	2	5	6	6	4	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	452.2	452.2	452.2	452.2	452.2
2.5°	446.8	452.2	448.4	449.5	449.5
5°	435.2	441.0	441.5	446.3	450.0
7.5°	417.7	426.1	430.4	439.9	446.3
10°	396.4	406.5	415.0	431.5	439.9
12.5°	373.6	385.3	398.0	419.8	432.0
15°	349.2	361.4	378.4	405.4	421.9
17.5°	322.1	337.0	357.7	390.1	410.2
20°	296.1	311.0	334.9	371.5	396.4
22.5°	269.1	284.5	311.0	351.8	381.6
25°	240.9	257.9	286.6	332.2	365.6
27.5°	213.3	231.4	261.6	311.5	348.7
30°	185.7	203.8	236.7	290.3	331.2
32.5°	157.6	176.2	211.7	268.0	313.1
35°	130.0	149.1	187.3	246.8	295.6
37.5°	101.9	122.1	162.9	226.1	278.1
40°	75.4	95.5	139.6	205.4	260.0
42.5°	50.4	70.6	115.7	185.2	243.1
45°	27.6	46.2	93.9	166.6	226.1
47.5°	14.9	25.5	72.7	148.6	207.0
50°	11.1	13.8	53.6	129.5	186.8
52.5°	9.6	10.6	37.1	109.3	166.6
55°	8.0	8.5	24.9	91.8	145.9
57.5°	6.4	6.9	18.6	74.3	123.7
60°	4.8	5.8	16.5	57.3	101.4
62.5°	3.7	4.8	15.4	41.9	80.1
65°	2.7	3.7	13.8	28.7	58.9
67.5°	2.7	4.2	11.7	18.6	39.8
70°	2.1	5.8	10.1	12.2	22.3
72.5°	2.1	6.4	8.5	8.5	8.5
75°	2.1	6.9	7.4	7.4	7.4
77.5°	2.1	6.4	6.9	6.4	6.4
80°	2.1	5.8	5.8	5.8	5.8
82.5°	2.1	5.3	5.8	5.8	4.8
85°	2.1	4.8	5.8	5.8	4.2
87.5°	1.6	4.8	5.3	5.3	3.2
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	0.00	0.00	0.00	0.00	0.00	13.13	14.41	13.50	14.72	15.04
	3H	0.00	0.00	0.00	0.00	0.00	13.51	14.64	13.89	14.97	15.34
	4H	0.00	0.00	0.00	0.00	0.18	13.49	14.54	13.89	14.89	15.27
	6H	0.00	0.54	0.00	0.91	1.30	13.47	14.44	13.89	14.81	15.21
	8H	0.16	1.07	0.59	1.46	1.87	13.47	14.39	13.91	14.78	15.19
	12H	0.82	1.69	1.25	2.08	2.51	13.49	14.36	13.92	14.74	15.17
4H	2H	0.00	0.43	0.00	0.78	1.17	12.94	14.00	13.35	14.35	14.73
	3H	0.96	1.82	1.37	2.22	2.63	13.36	14.22	13.78	14.63	15.03
	4H	2.25	3.02	2.69	3.44	3.88	13.36	14.13	13.80	14.55	14.99
	6H	3.38	4.04	3.84	4.48	4.95	13.40	14.06	13.86	14.51	14.98
	8H	3.88	4.50	4.35	4.95	5.42	13.43	14.05	13.90	14.49	14.97
	12H	4.43	4.97	4.91	5.46	5.93	13.49	14.04	13.98	14.52	15.00
8H	4H	3.34	3.95	3.81	4.40	4.87	13.27	13.89	13.74	14.34	14.81
	6H	4.87	5.38	5.37	5.87	6.35	13.35	13.85	13.85	14.35	14.83
	8H	5.68	6.13	6.20	6.65	7.14	13.43	13.89	13.95	14.40	14.89
	12H	6.51	6.91	7.03	7.41	7.98	13.60	14.00	14.11	14.50	15.07
12H	4H	3.52	4.07	4.01	4.55	5.03	13.23	13.78	13.72	14.26	14.74
	6H	5.22	5.68	5.75	6.19	6.69	13.32	13.78	13.84	14.29	14.78
	8H	6.23	6.63	6.75	7.13	7.70	13.46	13.86	13.97	14.35	14.93