

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: P1060872

Luminaire Tested: S124RDR-H575D830-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060872
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H575D830-X4F0-XX-UDD-SVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

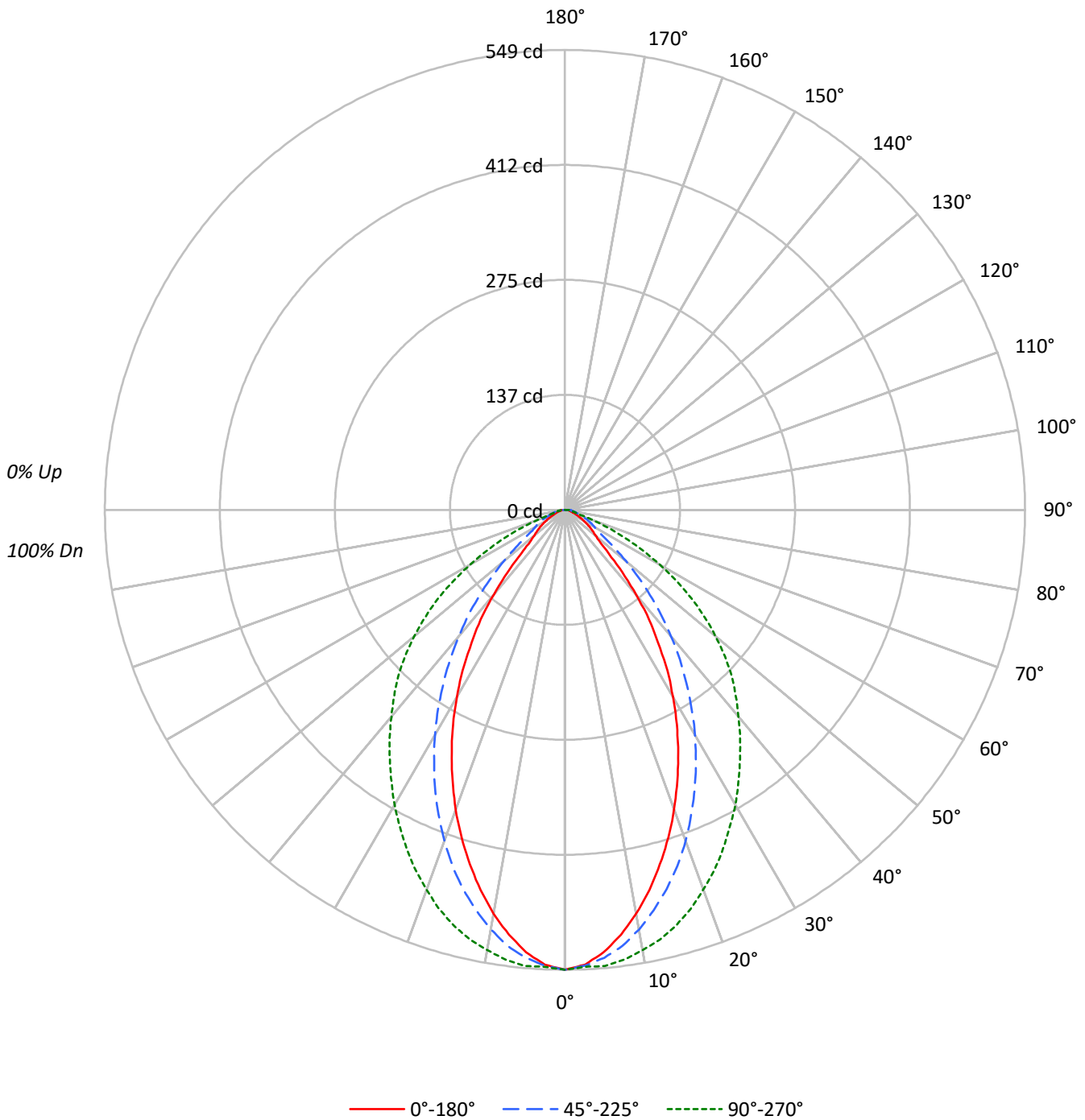
Lumens per Lamp: N/A
Luminaire Lumens: 777.0 lumens
Efficiency: N/A
Efficacy: 44.7 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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				100
1	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79				79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70				70
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63				63
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57				57
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51				51
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47				47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43				43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39				39
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36				36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4728	4728	4728
5°	4581	4639	4724
10°	4280	4446	4666
15°	3905	4178	4577
20°	3490	3856	4423
25°	3037	3485	4242
30°	2561	3086	4044
35°	2037	2656	3830
40°	1483	2213	3620
45°	896	1748	3428
50°	640	1266	3139
55°	543	856	2771
60°	444	698	2239
65°	350	626	1612
70°	295	526	848
75°	266	489	429
80°	273	486	426
85°	366	731	484

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3428 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.5	6.5
10°-20°	132.4	17.0
20°-30°	171.8	22.1
30°-40°	165.3	21.3
40°-50°	123.0	15.8
50°-60°	75.6	9.7
60°-70°	37.2	4.8
70°-80°	14.5	1.9
80°-90°	6.6	0.9
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°	354.7	45.7
0°-40°	520.1	66.9
0°-60°	718.7	92.5
0°-90°	777.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	777.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	549	549	549	549	549	
5°	530	538	537	542	546	49
15°	438	452	469	497	513	122
25°	320	337	367	413	446	146
35°	194	212	253	316	364	121
45°	74	91	144	221	282	61
55°	36	37	57	130	185	33
65°	17	18	31	49	79	18
75°	8	14	15	14	13	9
85°	4	7	7	7	5	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	549.0	549.0	549.0	549.0	549.0
2.5°	543.5	549.6	544.7	545.3	545.9
5°	530.0	537.9	536.7	541.6	546.5
7.5°	511.6	520.8	525.1	534.9	541.6
10°	489.5	499.9	508.5	524.4	533.6
12.5°	464.9	477.2	489.5	510.9	525.1
15°	438.0	452.1	468.6	496.8	513.4
17.5°	410.3	424.5	445.9	478.4	499.3
20°	380.9	396.2	420.8	457.0	482.7
22.5°	350.2	366.8	393.8	434.9	465.6
25°	319.6	336.7	366.8	412.8	446.5
27.5°	288.9	305.5	338.0	389.5	426.3
30°	257.6	274.8	310.4	364.3	406.7
32.5°	227.6	243.5	281.5	340.4	385.2
35°	193.8	212.2	252.7	315.9	364.3
37.5°	165.0	181.6	225.1	291.4	343.5
40°	131.9	150.3	196.9	267.4	322.0
42.5°	101.2	119.6	169.9	243.5	301.8
45°	73.6	91.4	143.5	221.4	281.5
47.5°	55.8	66.2	117.8	200.0	258.8
50°	47.8	50.9	94.5	176.7	234.3
52.5°	42.3	43.5	73.6	153.3	209.8
55°	36.2	37.4	57.0	130.0	184.6
57.5°	30.7	31.3	46.0	108.0	157.6
60°	25.8	26.4	40.5	86.5	130.0
62.5°	21.5	22.1	36.2	66.9	103.7
65°	17.2	18.4	30.7	49.1	79.1
67.5°	14.1	16.6	25.8	34.3	55.2
70°	11.7	15.9	20.9	23.9	33.7
72.5°	9.8	14.7	17.8	17.2	16.6
75°	8.0	14.1	14.7	13.5	12.9
77.5°	6.7	12.3	12.3	11.0	10.4
80°	5.5	9.8	9.8	9.8	8.6
82.5°	4.9	8.0	8.6	8.6	6.7
85°	3.7	6.7	7.4	7.4	4.9
87.5°	2.5	6.1	6.7	6.1	3.7
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	5.19	6.53	5.55	6.84	7.16	14.35	15.69	14.72	16.01	16.32
	3H	6.30	7.49	6.68	7.82	8.18	14.86	16.05	15.24	16.38	16.74
	4H	6.81	7.92	7.22	8.27	8.66	14.88	15.99	15.28	16.34	16.72
	6H	7.24	8.27	7.66	8.64	9.03	14.89	15.91	15.30	16.28	16.67
	8H	7.43	8.40	7.86	8.79	9.20	14.89	15.86	15.32	16.25	16.65
	12H	7.62	8.54	8.05	8.92	9.35	14.89	15.82	15.33	16.20	16.63
4H	2H	6.33	7.44	6.73	7.79	8.18	14.24	15.35	14.65	15.70	16.09
	3H	7.67	8.58	8.08	8.98	9.39	14.83	15.74	15.24	16.14	16.55
	4H	8.40	9.22	8.84	9.64	10.08	14.89	15.70	15.33	16.12	16.57
	6H	9.01	9.71	9.47	10.16	10.63	14.97	15.67	15.43	16.11	16.58
	8H	9.25	9.91	9.72	10.36	10.83	15.00	15.65	15.46	16.10	16.57
	12H	9.49	10.07	9.98	10.55	11.03	15.04	15.62	15.52	16.10	16.57
8H	4H	8.87	9.53	9.34	9.98	10.45	14.85	15.51	15.32	15.95	16.42
	6H	9.72	10.26	10.22	10.75	11.23	14.98	15.51	15.48	16.01	16.49
	8H	10.13	10.61	10.65	11.12	11.62	15.06	15.54	15.58	16.06	16.55
	12H	10.55	10.98	11.06	11.47	12.04	15.18	15.61	15.69	16.10	16.67
12H	4H	8.93	9.51	9.41	9.99	10.46	14.82	15.40	15.31	15.88	16.36
	6H	9.85	10.33	10.37	10.85	11.34	14.96	15.44	15.48	15.96	16.45
	8H	10.37	10.80	10.89	11.30	11.87	15.09	15.52	15.60	16.01	16.58