

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: P1060939

Luminaire Tested: S124RDR-H575D950-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060939
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-H575D950-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: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

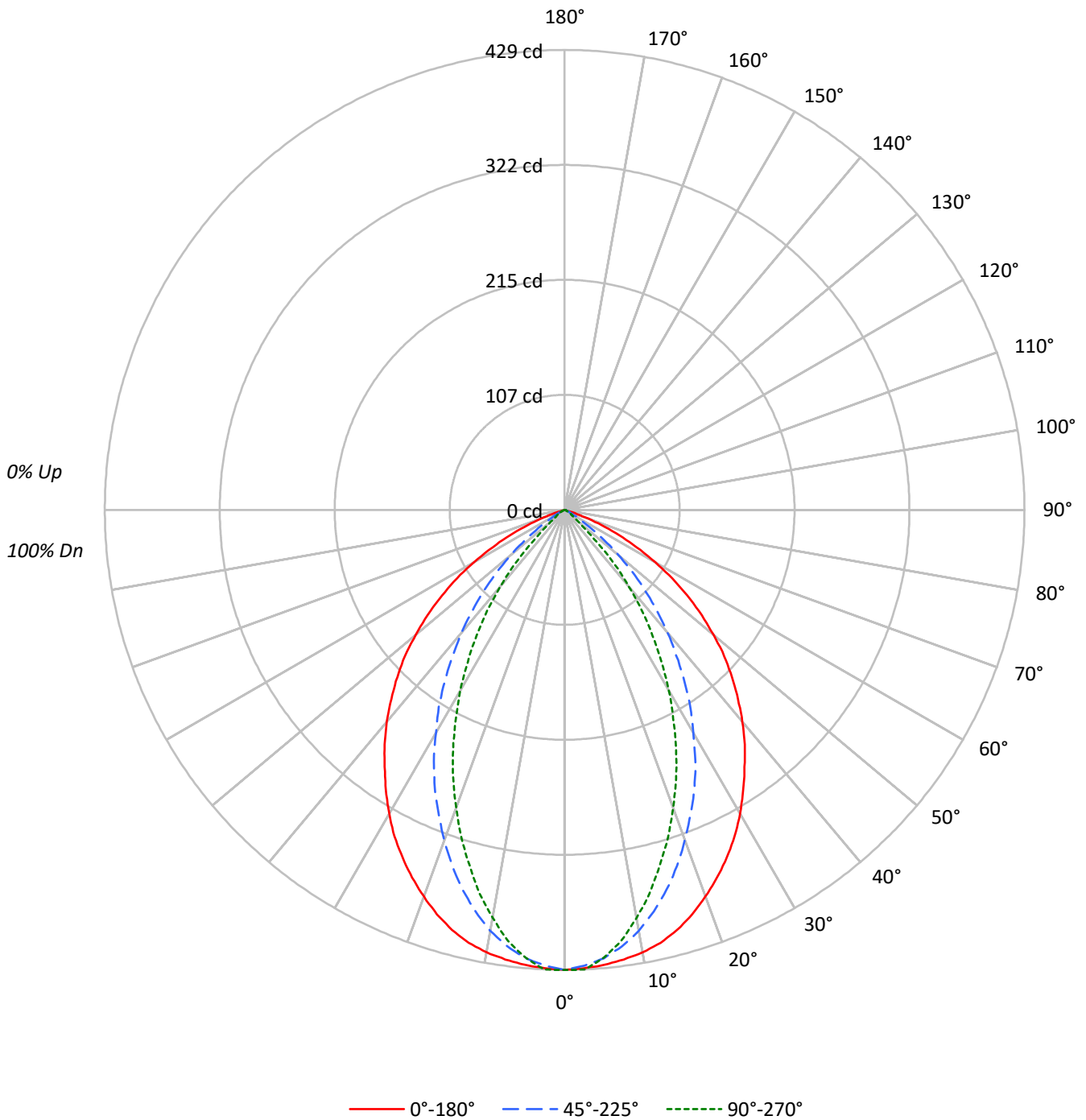
Lumens per Lamp: N/A
Luminaire Lumens: 560.4 lumens
Efficiency: N/A
Efficacy: 32.2 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3696	3696	3696
5°	3683	3630	3624
10°	3665	3487	3379
15°	3616	3273	3058
20°	3518	3007	2711
25°	3400	2722	2339
30°	3255	2386	1936
35°	3077	2047	1506
40°	2900	1681	1052
45°	2689	1291	521
50°	2426	872	174
55°	2094	447	122
60°	1677	160	86
65°	1149	88	39
70°	516	48	30
75°	0	20	20
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2689 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.6	7.1
10°-20°	103.9	18.5
20°-30°	134.5	24.0
30°-40°	127.8	22.8
40°-50°	90.5	16.1
50°-60°	46.5	8.3
60°-70°	16.2	2.9
70°-80°	1.4	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°	278.0	49.6
0°-40°	405.8	72.4
0°-60°	542.7	96.9
0°-90°	560.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	560.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	429	429	429	429	429	
5°	426	427	420	420	419	40
15°	406	393	367	350	343	114
25°	358	330	286	256	246	165
35°	293	250	195	157	143	183
45°	221	170	106	61	43	170
55°	140	92	30	9	8	125
65°	56	27	4	2	2	56
75°	0	1	1	1	1	5
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°	429.2	429.2	429.2	429.2	429.2
2.5°	427.9	429.2	425.4	428.5	429.2
5°	426.1	426.7	419.9	419.9	419.2
7.5°	423.0	421.7	410.6	406.2	405.6
10°	419.2	414.9	398.8	389.5	386.4
12.5°	413.7	405.6	383.9	370.2	366.5
15°	405.6	393.2	367.1	349.8	343.0
17.5°	395.7	379.5	348.5	327.4	320.6
20°	383.9	363.4	328.1	304.5	295.8
22.5°	371.5	347.9	307.0	280.3	271.6
25°	357.8	329.9	286.5	256.1	246.2
27.5°	343.6	310.7	264.2	232.6	219.5
30°	327.4	291.5	240.0	207.1	194.7
32.5°	310.1	270.4	218.3	182.9	168.1
35°	292.7	249.9	194.7	156.9	143.3
37.5°	276.0	230.7	171.2	131.5	118.5
40°	258.0	209.6	149.5	108.5	93.6
42.5°	239.4	189.2	127.1	85.0	68.8
45°	220.8	169.9	106.0	60.8	42.8
47.5°	202.2	149.5	85.6	38.5	22.9
50°	181.1	129.6	65.1	20.5	13.0
52.5°	161.2	111.0	46.5	11.8	9.9
55°	139.5	91.8	29.8	8.7	8.1
57.5°	119.1	73.2	16.7	6.8	6.2
60°	97.4	56.4	9.3	5.6	5.0
62.5°	75.7	40.9	6.2	3.7	3.1
65°	56.4	27.3	4.3	2.5	1.9
67.5°	37.2	15.5	3.1	1.2	1.2
70°	20.5	7.4	1.9	1.2	1.2
72.5°	7.4	2.5	1.2	0.6	0.6
75°	0.0	0.6	0.6	0.6	0.6
77.5°	0.0	0.0	0.0	0.0	0.6
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	13.07	14.33	13.44	14.64	14.96	0.00	0.00	0.00	0.00	0.00
	3H	13.35	14.45	13.73	14.78	15.15	0.00	0.00	0.00	0.00	0.00
	4H	13.27	14.30	13.68	14.65	15.03	0.00	0.00	0.00	0.00	0.00
	6H	13.19	14.12	13.60	14.50	14.89	0.00	0.00	0.00	0.00	0.00
	8H	13.14	14.03	13.57	14.42	14.82	0.00	0.00	0.00	0.00	0.00
	12H	13.09	13.94	13.53	14.32	14.75	0.00	0.00	0.00	0.00	0.00
4H	2H	12.85	13.87	13.25	14.22	14.61	0.00	0.00	0.00	0.00	0.00
	3H	13.13	13.96	13.54	14.36	14.77	0.00	0.00	0.00	0.00	0.00
	4H	13.04	13.77	13.47	14.19	14.64	0.00	0.00	0.00	0.00	0.00
	6H	12.95	13.58	13.41	14.03	14.49	0.00	0.00	0.00	0.00	0.00
	8H	12.89	13.47	13.36	13.92	14.40	0.00	0.00	0.00	0.00	0.00
	12H	12.83	13.35	13.32	13.84	14.31	0.00	0.00	0.00	0.00	0.00
8H	4H	12.89	13.47	13.36	13.92	14.40	0.00	0.00	0.00	0.00	0.00
	6H	12.78	13.25	13.28	13.75	14.24	0.00	0.00	0.00	0.00	0.00
	8H	12.71	13.14	13.24	13.66	14.15	0.00	0.00	0.00	0.00	0.00
	12H	12.66	13.04	13.18	13.53	14.11	0.00	0.00	0.00	0.00	0.00
12H	4H	12.84	13.35	13.32	13.84	14.31	0.00	0.00	0.00	0.00	0.00
	6H	12.71	13.14	13.24	13.66	14.15	0.00	0.00	0.00	0.00	0.00
	8H	12.66	13.04	13.18	13.53	14.11	0.00	0.00	0.00	0.00	0.00