

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: P1060945

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060945
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-37)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H575D950-X4F0-XX-UDD-WVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

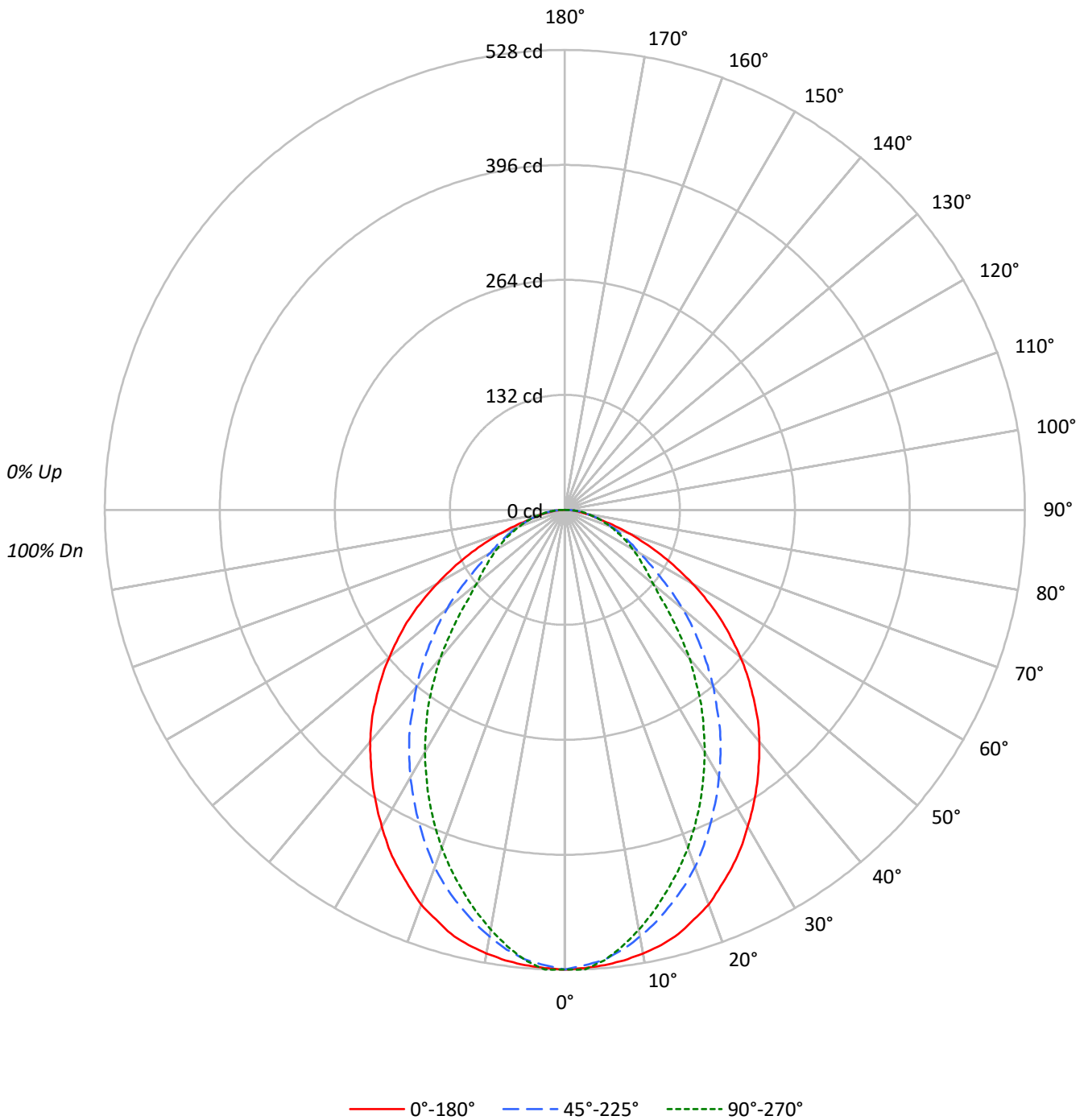
Lumens per Lamp: N/A
Luminaire Lumens: 1017.6 lumens
Efficiency: N/A
Efficacy: 58.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76	74
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4545	4545	4545
5°	4536	4482	4487
10°	4522	4349	4278
15°	4495	4186	4036
20°	4422	4001	3785
25°	4307	3765	3500
30°	4175	3521	3194
35°	4042	3266	2869
40°	3904	2977	2502
45°	3731	2673	2092
50°	3523	2359	1770
55°	3277	2001	1638
60°	2905	1698	1548
65°	2478	1567	1465
70°	1936	1453	1390
75°	1321	1341	1341
80°	1136	1260	1289
85°	978	1225	1344

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3731 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.1	4.8
10°-20°	133.4	13.1
20°-30°	185.1	18.2
30°-40°	198.4	19.5
40°-50°	175.8	17.3
50°-60°	132.5	13.0
60°-70°	85.8	8.4
70°-80°	44.0	4.3
80°-90°	13.5	1.3
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°	367.6	36.1
0°-40°	566.0	55.6
0°-60°	874.3	85.9
0°-90°	1017.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1017.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	528	528	528	528	528	
5°	525	525	518	519	519	50
15°	504	493	470	458	453	142
25°	453	429	396	375	368	209
35°	384	350	311	283	273	240
45°	306	267	220	185	172	236
55°	218	182	133	112	109	194
65°	122	98	77	73	72	121
75°	40	42	40	40	40	47
85°	10	10	12	14	14	11
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	527.8	527.8	527.8	527.8	527.8
2.5°	526.5	528.4	523.4	527.1	528.4
5°	524.7	525.3	518.5	519.1	519.1
7.5°	521.6	520.3	509.2	506.1	505.4
10°	517.2	513.5	497.4	491.2	489.3
12.5°	511.6	504.8	484.4	475.7	471.9
15°	504.2	493.0	469.5	457.7	452.7
17.5°	493.0	478.8	454.0	439.1	433.5
20°	482.5	463.3	436.6	418.0	413.0
22.5°	467.6	447.1	416.8	396.9	390.7
25°	453.3	429.2	396.3	375.2	368.4
27.5°	437.8	410.6	375.2	352.9	344.2
30°	419.9	390.7	354.1	330.5	321.2
32.5°	402.5	371.5	332.4	306.4	296.4
35°	384.5	349.8	310.7	282.8	272.9
37.5°	365.9	329.3	286.5	259.2	246.2
40°	347.3	308.8	264.8	233.8	222.6
42.5°	328.1	287.8	242.5	210.2	196.0
45°	306.4	266.7	219.5	185.4	171.8
47.5°	285.3	246.2	198.5	161.2	148.8
50°	263.0	224.5	176.1	140.2	132.1
52.5°	240.6	202.2	154.4	124.0	120.3
55°	218.3	181.7	133.3	112.3	109.1
57.5°	193.5	160.6	114.7	101.7	99.2
60°	168.7	137.7	98.6	91.8	89.9
62.5°	144.5	117.8	87.4	81.9	80.6
65°	121.6	98.0	76.9	72.6	71.9
67.5°	99.2	80.6	67.0	64.5	63.3
70°	76.9	64.5	57.7	56.4	55.2
72.5°	57.1	52.1	49.0	48.4	47.8
75°	39.7	41.6	40.3	40.3	40.3
77.5°	31.6	32.2	32.9	33.5	32.9
80°	22.9	24.8	25.4	26.7	26.0
82.5°	16.1	17.4	19.2	19.8	20.5
85°	9.9	10.5	12.4	13.6	13.6
87.5°	4.3	5.0	6.2	7.4	8.1
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	15.70	17.20	16.06	17.51	17.83	12.26	13.76	12.63	14.07	14.39
	3H	16.90	18.25	17.28	18.57	18.94	13.96	15.30	14.34	15.63	15.99
	4H	17.21	18.47	17.61	18.82	19.20	14.64	15.90	15.04	16.25	16.62
	6H	17.41	18.58	17.83	18.94	19.34	15.19	16.35	15.60	16.72	17.11
	8H	17.47	18.58	17.90	18.97	19.37	15.40	16.51	15.83	16.90	17.30
	12H	17.50	18.56	17.93	18.95	19.37	15.58	16.64	16.01	17.02	17.45
4H	2H	15.84	17.10	16.24	17.45	17.83	12.92	14.18	13.32	14.53	14.91
	3H	17.24	18.29	17.65	18.69	19.09	14.83	15.88	15.24	16.28	16.68
	4H	17.67	18.61	18.10	19.03	19.46	15.64	16.58	16.07	16.99	17.43
	6H	17.99	18.81	18.45	19.25	19.71	16.32	17.14	16.78	17.58	18.04
	8H	18.09	18.86	18.55	19.30	19.77	16.60	17.36	17.06	17.81	18.27
	12H	18.16	18.84	18.64	19.32	19.79	16.83	17.51	17.31	17.99	18.46
8H	4H	17.80	18.56	18.26	19.01	19.47	15.95	16.72	16.42	17.16	17.63
	6H	18.22	18.85	18.71	19.34	19.82	16.78	17.41	17.28	17.90	18.38
	8H	18.37	18.94	18.89	19.45	19.94	17.15	17.71	17.66	18.22	18.71
	12H	18.50	19.00	19.01	19.50	20.06	17.48	17.98	17.99	18.47	19.04
12H	4H	17.80	18.49	18.29	18.96	19.44	15.98	16.66	16.46	17.14	17.61
	6H	18.24	18.81	18.76	19.32	19.81	16.84	17.41	17.36	17.92	18.41
	8H	18.45	18.95	18.96	19.44	20.01	17.27	17.77	17.78	18.27	18.83