

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060408

Luminaire Tested: S124RDRP-S350D850-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060408
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: S124RDRP-S350D850-X4F0-XX-UDD-BVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

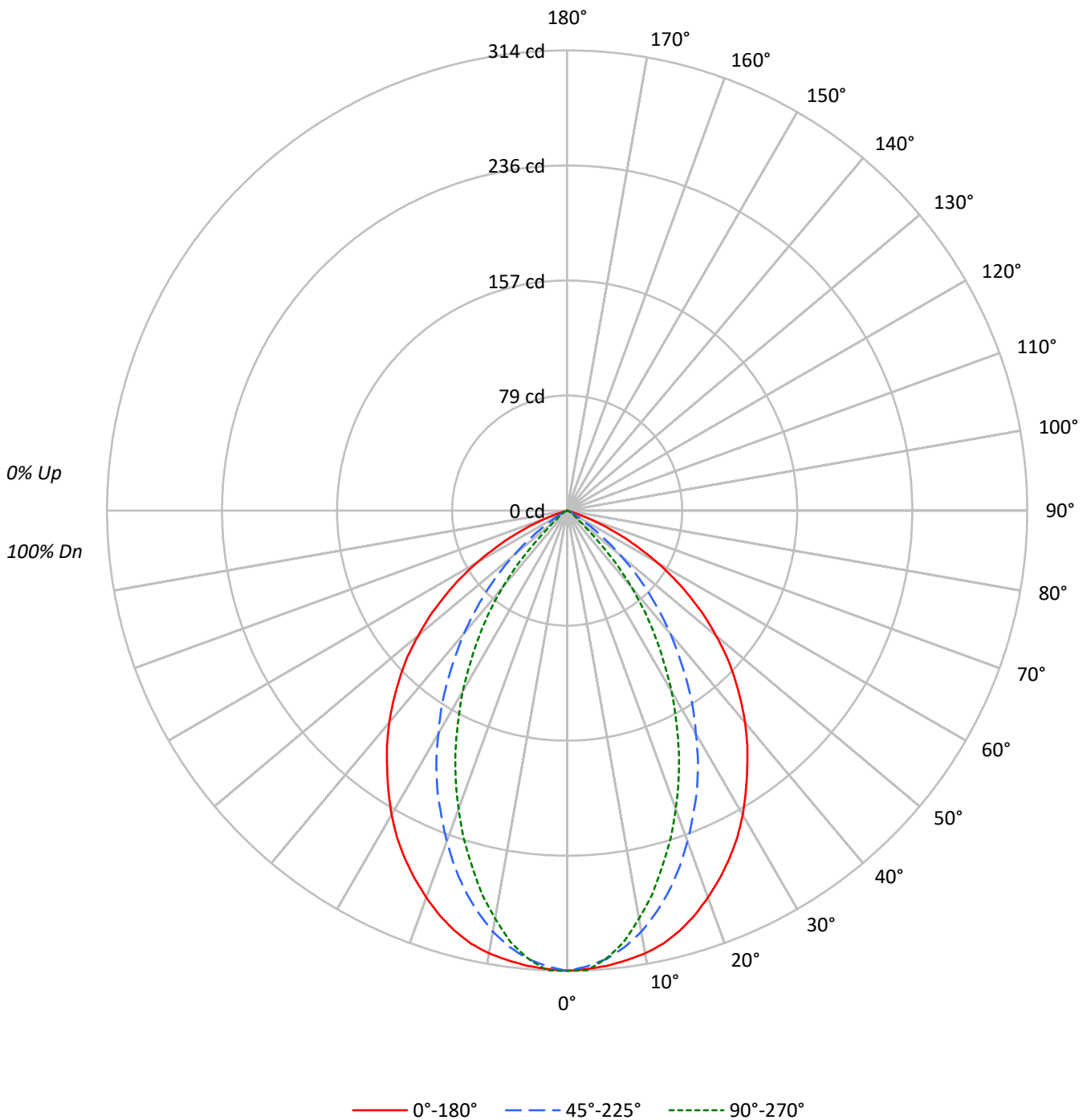
Lumens per Lamp: N/A
Luminaire Lumens: 410.1 lumens
Efficiency: N/A
Efficacy: 32.8 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
Input Voltage (V): 120
Input Current (A_{in}): 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°	2704	2704	2704
5°	2695	2655	2652
10°	2683	2551	2472
15°	2646	2395	2238
20°	2574	2200	1984
25°	2488	1992	1712
30°	2382	1746	1417
35°	2252	1498	1102
40°	2122	1230	770
45°	1968	945	381
50°	1775	639	127
55°	1533	327	89
60°	1226	117	62
65°	842	65	29
70°	378	35	23
75°	0	17	17
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1968 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.0	7.1
10°-20°	76.0	18.5
20°-30°	98.4	24.0
30°-40°	93.5	22.8
40°-50°	66.2	16.1
50°-60°	34.0	8.3
60°-70°	11.9	2.9
70°-80°	1.0	0.3
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°	203.4	49.6
0°-40°	296.9	72.4
0°-60°	397.1	96.8
0°-90°	410.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	410.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	314	314	314	314	314	
5°	312	312	307	307	307	30
15°	297	288	269	256	251	83
25°	262	241	210	187	180	120
35°	214	183	142	115	105	134
45°	162	124	78	44	31	124
55°	102	67	22	6	6	91
65°	41	20	3	2	1	41
75°	0	0	0	0	0	3
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°	314.0	314.0	314.0	314.0	314.0
2.5°	313.1	314.0	311.3	313.6	314.0
5°	311.8	312.2	307.2	307.2	306.8
7.5°	309.5	308.6	300.4	297.2	296.8
10°	306.8	303.6	291.8	285.0	282.7
12.5°	302.7	296.8	280.9	270.9	268.2
15°	296.8	287.7	268.7	256.0	251.0
17.5°	289.5	277.7	255.0	239.6	234.6
20°	280.9	265.9	240.1	222.8	216.5
22.5°	271.8	254.6	224.6	205.1	198.8
25°	261.9	241.4	209.7	187.4	180.2
27.5°	251.4	227.4	193.3	170.2	160.7
30°	239.6	213.3	175.6	151.6	142.5
32.5°	226.9	197.9	159.7	133.9	123.0
35°	214.2	182.9	142.5	114.8	104.8
37.5°	201.9	168.8	125.3	96.2	86.7
40°	188.8	153.4	109.4	79.4	68.5
42.5°	175.2	138.4	93.0	62.2	50.4
45°	161.6	124.3	77.6	44.5	31.3
47.5°	147.9	109.4	62.6	28.1	16.8
50°	132.5	94.8	47.7	15.0	9.5
52.5°	118.0	81.2	34.0	8.6	7.3
55°	102.1	67.2	21.8	6.4	5.9
57.5°	87.1	53.6	12.3	5.0	4.5
60°	71.2	41.3	6.8	4.1	3.6
62.5°	55.4	30.0	4.5	2.7	2.3
65°	41.3	20.0	3.2	1.8	1.4
67.5°	27.2	11.3	2.3	0.9	0.9
70°	15.0	5.4	1.4	0.9	0.9
72.5°	5.4	1.8	0.9	0.5	0.5
75°	0.0	0.5	0.5	0.5	0.5
77.5°	0.0	0.0	0.0	0.0	0.5
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	11.99	13.25	12.35	13.56	13.87	0.00	0.00	0.00	0.00	0.00
	3H	12.26	13.37	12.64	13.70	14.07	0.00	0.00	0.00	0.00	0.00
	4H	12.19	13.21	12.59	13.56	13.95	0.00	0.00	0.00	0.00	0.00
	6H	12.10	13.04	12.52	13.41	13.81	0.00	0.00	0.00	0.00	0.00
	8H	12.06	12.94	12.49	13.33	13.74	0.00	0.00	0.00	0.00	0.00
	12H	12.01	12.86	12.44	13.24	13.67	0.00	0.00	0.00	0.00	0.00
4H	2H	11.76	12.79	12.17	13.14	13.52	0.00	0.00	0.00	0.00	0.00
	3H	12.04	12.87	12.46	13.28	13.68	0.00	0.00	0.00	0.00	0.00
	4H	11.95	12.69	12.39	13.11	13.55	0.00	0.00	0.00	0.00	0.00
	6H	11.86	12.49	12.33	12.94	13.41	0.00	0.00	0.00	0.00	0.00
	8H	11.80	12.39	12.27	12.84	13.31	0.00	0.00	0.00	0.00	0.00
	12H	11.75	12.27	12.24	12.75	13.23	0.00	0.00	0.00	0.00	0.00
8H	4H	11.80	12.39	12.27	12.84	13.31	0.00	0.00	0.00	0.00	0.00
	6H	11.69	12.17	12.20	12.67	13.15	0.00	0.00	0.00	0.00	0.00
	8H	11.63	12.05	12.15	12.57	13.07	0.00	0.00	0.00	0.00	0.00
	12H	11.58	11.95	12.09	12.45	13.02	0.00	0.00	0.00	0.00	0.00
12H	4H	11.75	12.27	12.24	12.75	13.23	0.00	0.00	0.00	0.00	0.00
	6H	11.63	12.05	12.15	12.57	13.07	0.00	0.00	0.00	0.00	0.00
	8H	11.58	11.95	12.09	12.45	13.02	0.00	0.00	0.00	0.00	0.00