

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: P1060489

Luminaire Tested: S124RDRP-S575D850-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060489
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-S575D850-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

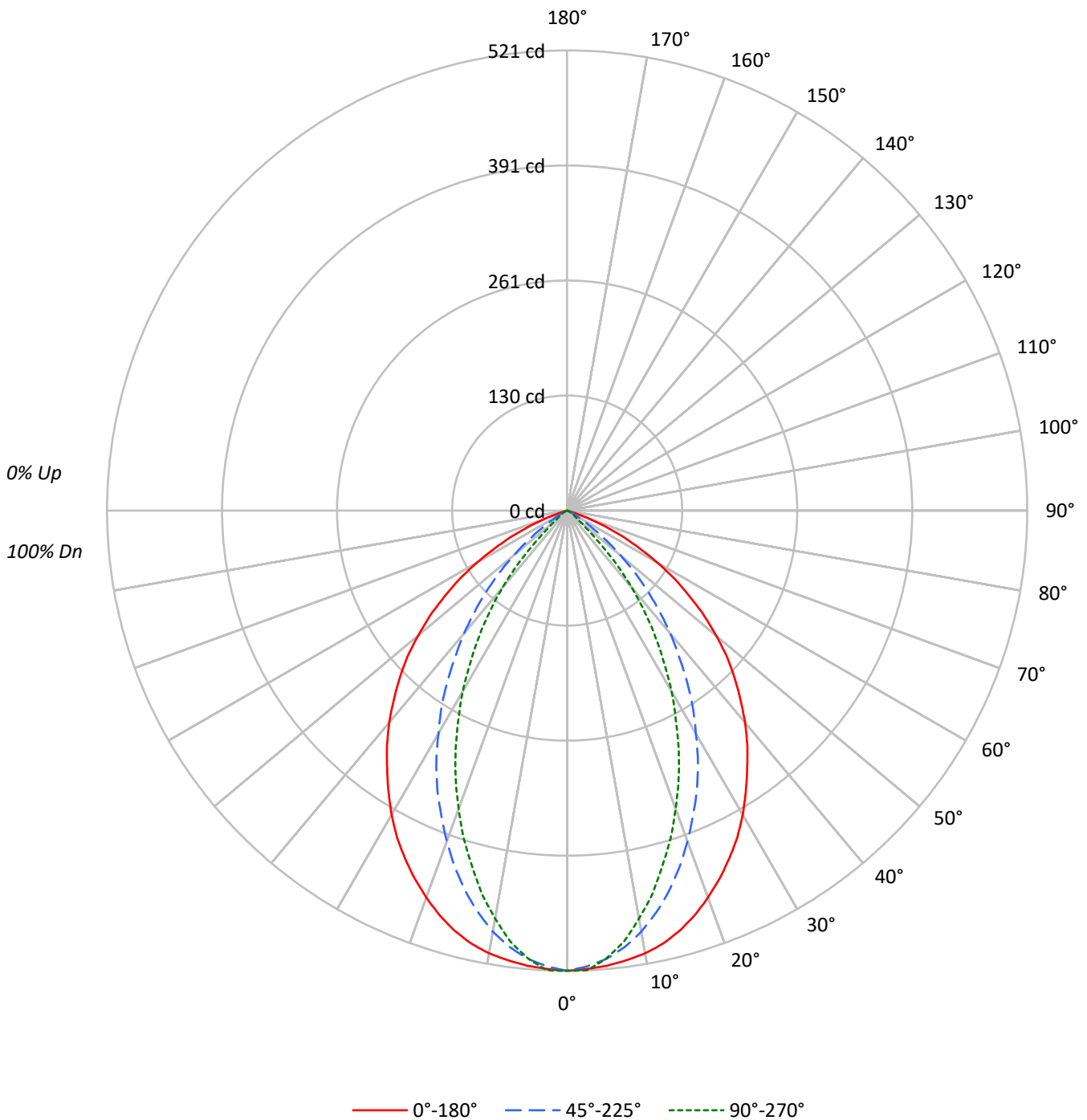
Lumens per Lamp: N/A
Luminaire Lumens: 680.4 lumens
Efficiency: N/A
Efficacy: 34.7 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
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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CATALOG NUMBER: S124RDRP-S575D850-X4F0-XX-UDD-BVL-B

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°	4486	4486	4486
5°	4472	4406	4400
10°	4451	4233	4102
15°	4390	3973	3712
20°	4271	3650	3291
25°	4127	3306	2840
30°	3952	2897	2351
35°	3736	2485	1828
40°	3521	2040	1278
45°	3264	1569	633
50°	2946	1060	212
55°	2543	542	147
60°	2036	195	103
65°	1396	108	47
70°	624	58	38
75°	0	27	27
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3264 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.1	7.1
10°-20°	126.1	18.5
20°-30°	163.3	24.0
30°-40°	155.1	22.8
40°-50°	109.9	16.1
50°-60°	56.4	8.3
60°-70°	19.7	2.9
70°-80°	1.7	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°	337.5	49.6
0°-40°	492.7	72.4
0°-60°	658.9	96.8
0°-90°	680.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	680.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	521	521	521	521	521	
5°	517	518	510	510	509	49
15°	492	477	446	425	416	138
25°	434	401	348	311	299	200
35°	355	303	236	190	174	222
45°	268	206	129	74	52	206
55°	169	111	36	10	10	151
65°	68	33	5	3	2	68
75°	0	1	1	1	1	6
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0

TEST NUMBER: P1060489

CATALOG NUMBER: S124RDRP-S575D850-X4F0-XX-UDD-BVL-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	521.0	521.0	521.0	521.0	521.0
2.5°	519.5	521.0	516.5	520.3	521.0
5°	517.3	518.0	509.7	509.7	509.0
7.5°	513.5	512.0	498.4	493.2	492.4
10°	509.0	503.7	484.1	472.8	469.1
12.5°	502.2	492.4	466.1	449.5	445.0
15°	492.4	477.4	445.7	424.7	416.4
17.5°	480.4	460.8	423.1	397.5	389.3
20°	466.1	441.2	398.3	369.7	359.1
22.5°	451.0	422.4	372.7	340.3	329.8
25°	434.4	400.6	347.9	311.0	298.9
27.5°	417.1	377.2	320.7	282.3	266.5
30°	397.5	353.9	291.4	251.5	236.4
32.5°	376.5	328.3	265.0	222.1	204.0
35°	355.4	303.4	236.4	190.5	173.9
37.5°	335.1	280.1	207.8	159.6	143.8
40°	313.2	254.5	181.5	131.8	113.7
42.5°	290.6	229.6	154.4	103.2	83.6
45°	268.0	206.3	128.8	73.8	52.0
47.5°	245.5	181.5	103.9	46.7	27.9
50°	219.9	157.4	79.1	24.8	15.8
52.5°	195.8	134.8	56.5	14.3	12.0
55°	169.4	111.4	36.1	10.5	9.8
57.5°	144.6	88.8	20.3	8.3	7.5
60°	118.2	68.5	11.3	6.8	6.0
62.5°	91.9	49.7	7.5	4.5	3.8
65°	68.5	33.1	5.3	3.0	2.3
67.5°	45.2	18.8	3.8	1.5	1.5
70°	24.8	9.0	2.3	1.5	1.5
72.5°	9.0	3.0	1.5	0.8	0.8
75°	0.0	0.8	0.8	0.8	0.8
77.5°	0.0	0.0	0.0	0.0	0.8
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	13.74	15.00	14.11	15.31	15.63	0.00	0.00	0.00	0.00	0.00
	3H	14.02	15.12	14.40	15.45	15.82	0.00	0.00	0.00	0.00	0.00
	4H	13.94	14.97	14.35	15.32	15.70	0.00	0.00	0.00	0.00	0.00
	6H	13.86	14.79	14.27	15.17	15.56	0.00	0.00	0.00	0.00	0.00
	8H	13.81	14.70	14.24	15.09	15.49	0.00	0.00	0.00	0.00	0.00
	12H	13.76	14.61	14.20	14.99	15.42	0.00	0.00	0.00	0.00	0.00
4H	2H	13.52	14.54	13.92	14.89	15.28	0.00	0.00	0.00	0.00	0.00
	3H	13.80	14.63	14.21	15.03	15.44	0.00	0.00	0.00	0.00	0.00
	4H	13.71	14.44	14.14	14.86	15.31	0.00	0.00	0.00	0.00	0.00
	6H	13.62	14.25	14.08	14.70	15.17	0.00	0.00	0.00	0.00	0.00
	8H	13.56	14.14	14.03	14.59	15.07	0.00	0.00	0.00	0.00	0.00
	12H	13.51	14.02	13.99	14.51	14.98	0.00	0.00	0.00	0.00	0.00
8H	4H	13.56	14.15	14.03	14.59	15.07	0.00	0.00	0.00	0.00	0.00
	6H	13.45	13.93	13.95	14.42	14.91	0.00	0.00	0.00	0.00	0.00
	8H	13.38	13.81	13.91	14.33	14.82	0.00	0.00	0.00	0.00	0.00
	12H	13.33	13.71	13.85	14.21	14.78	0.00	0.00	0.00	0.00	0.00
12H	4H	13.51	14.02	13.99	14.51	14.98	0.00	0.00	0.00	0.00	0.00
	6H	13.38	13.81	13.91	14.33	14.82	0.00	0.00	0.00	0.00	0.00
	8H	13.33	13.71	13.85	14.21	14.78	0.00	0.00	0.00	0.00	0.00