

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: P1060480

Luminaire Tested: S124RDRP-S575D840-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060480
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-S575D840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

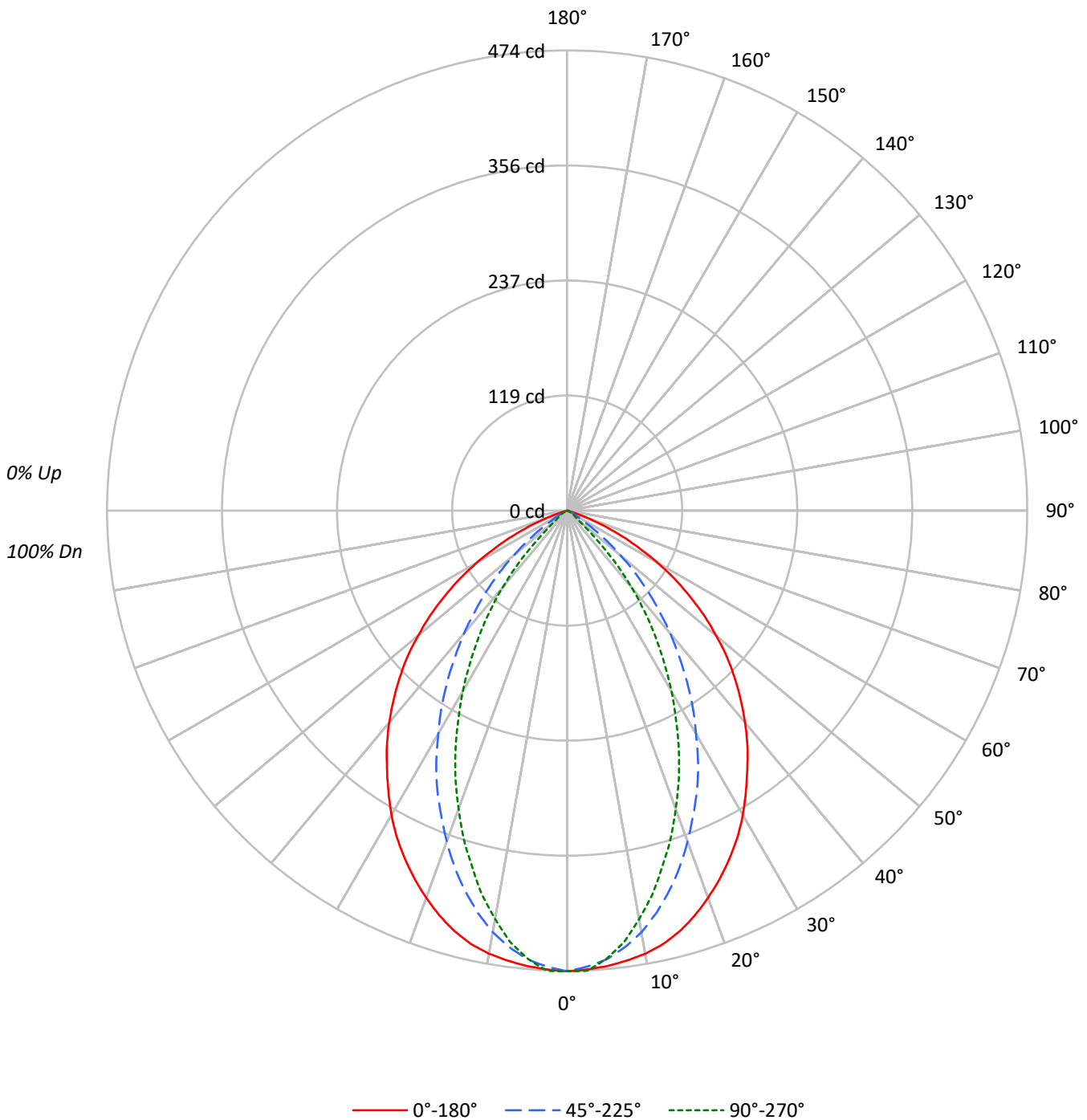
Lumens per Lamp: N/A
Luminaire Lumens: 619.5 lumens
Efficiency: N/A
Efficacy: 31.6 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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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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°	4086	4086	4086
5°	4071	4013	4007
10°	4053	3855	3735
15°	3997	3619	3381
20°	3889	3324	2997
25°	3759	3010	2586
30°	3599	2638	2141
35°	3402	2263	1665
40°	3206	1857	1163
45°	2973	1427	576
50°	2682	965	193
55°	2317	494	134
60°	1853	177	95
65°	1271	98	43
70°	569	53	35
75°	0	23	23
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2973 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.8	7.1
10°-20°	114.8	18.5
20°-30°	148.7	24.0
30°-40°	141.3	22.8
40°-50°	100.0	16.1
50°-60°	51.3	8.3
60°-70°	18.0	2.9
70°-80°	1.6	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°	307.4	49.6
0°-40°	448.6	72.4
0°-60°	600.0	96.8
0°-90°	619.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	619.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	474	474	474	474	474	
5°	471	472	464	464	464	45
15°	448	435	406	387	379	126
25°	396	365	317	283	272	182
35°	324	276	215	174	158	202
45°	244	188	117	67	47	188
55°	154	102	33	10	9	138
65°	62	30	5	3	2	62
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°	474.5	474.5	474.5	474.5	474.5
2.5°	473.1	474.5	470.3	473.8	474.5
5°	471.0	471.7	464.2	464.2	463.5
7.5°	467.6	466.2	453.9	449.1	448.4
10°	463.5	458.7	440.9	430.6	427.1
12.5°	457.3	448.4	424.4	409.3	405.2
15°	448.4	434.7	405.9	386.7	379.2
17.5°	437.4	419.6	385.3	362.0	354.5
20°	424.4	401.8	362.7	336.6	327.0
22.5°	410.7	384.6	339.4	309.9	300.3
25°	395.6	364.8	316.8	283.2	272.2
27.5°	379.8	343.5	292.1	257.1	242.7
30°	362.0	322.2	265.3	229.0	215.3
32.5°	342.8	298.9	241.3	202.3	185.8
35°	323.6	276.3	215.3	173.5	158.4
37.5°	305.1	255.1	189.2	145.4	131.0
40°	285.2	231.7	165.2	120.0	103.5
42.5°	264.7	209.1	140.6	93.9	76.1
45°	244.1	187.9	117.2	67.2	47.3
47.5°	223.5	165.2	94.6	42.5	25.4
50°	200.2	143.3	72.0	22.6	14.4
52.5°	178.3	122.7	51.4	13.0	11.0
55°	154.3	101.5	32.9	9.6	8.9
57.5°	131.6	80.9	18.5	7.5	6.9
60°	107.6	62.4	10.3	6.2	5.5
62.5°	83.6	45.3	6.9	4.1	3.4
65°	62.4	30.2	4.8	2.7	2.1
67.5°	41.1	17.1	3.4	1.4	1.4
70°	22.6	8.2	2.1	1.4	1.4
72.5°	8.2	2.7	1.4	0.7	0.7
75°	0.0	0.7	0.7	0.7	0.7
77.5°	0.0	0.0	0.0	0.0	0.7
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	13.42	14.67	13.78	14.99	15.30	0.00	0.00	0.00	0.00	0.00
	3H	13.69	14.80	14.07	15.13	15.50	0.00	0.00	0.00	0.00	0.00
	4H	13.62	14.64	14.02	14.99	15.38	0.00	0.00	0.00	0.00	0.00
	6H	13.53	14.47	13.95	14.84	15.24	0.00	0.00	0.00	0.00	0.00
	8H	13.49	14.37	13.92	14.76	15.17	0.00	0.00	0.00	0.00	0.00
	12H	13.44	14.29	13.87	14.67	15.10	0.00	0.00	0.00	0.00	0.00
4H	2H	13.19	14.22	13.59	14.57	14.95	0.00	0.00	0.00	0.00	0.00
	3H	13.47	14.30	13.89	14.71	15.11	0.00	0.00	0.00	0.00	0.00
	4H	13.38	14.12	13.82	14.54	14.98	0.00	0.00	0.00	0.00	0.00
	6H	13.29	13.92	13.76	14.37	14.84	0.00	0.00	0.00	0.00	0.00
	8H	13.23	13.82	13.70	14.27	14.74	0.00	0.00	0.00	0.00	0.00
	12H	13.18	13.70	13.67	14.18	14.66	0.00	0.00	0.00	0.00	0.00
8H	4H	13.23	13.82	13.70	14.27	14.74	0.00	0.00	0.00	0.00	0.00
	6H	13.12	13.60	13.63	14.10	14.58	0.00	0.00	0.00	0.00	0.00
	8H	13.06	13.48	13.58	14.00	14.50	0.00	0.00	0.00	0.00	0.00
	12H	13.01	13.38	13.52	13.88	14.45	0.00	0.00	0.00	0.00	0.00
12H	4H	13.18	13.70	13.67	14.18	14.66	0.00	0.00	0.00	0.00	0.00
	6H	13.06	13.48	13.58	14.00	14.50	0.00	0.00	0.00	0.00	0.00
	8H	13.01	13.38	13.52	13.88	14.45	0.00	0.00	0.00	0.00	0.00