

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: P1060255

Luminaire Tested: S124RDRP-S1020D927-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060255  
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-S1020D927-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: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

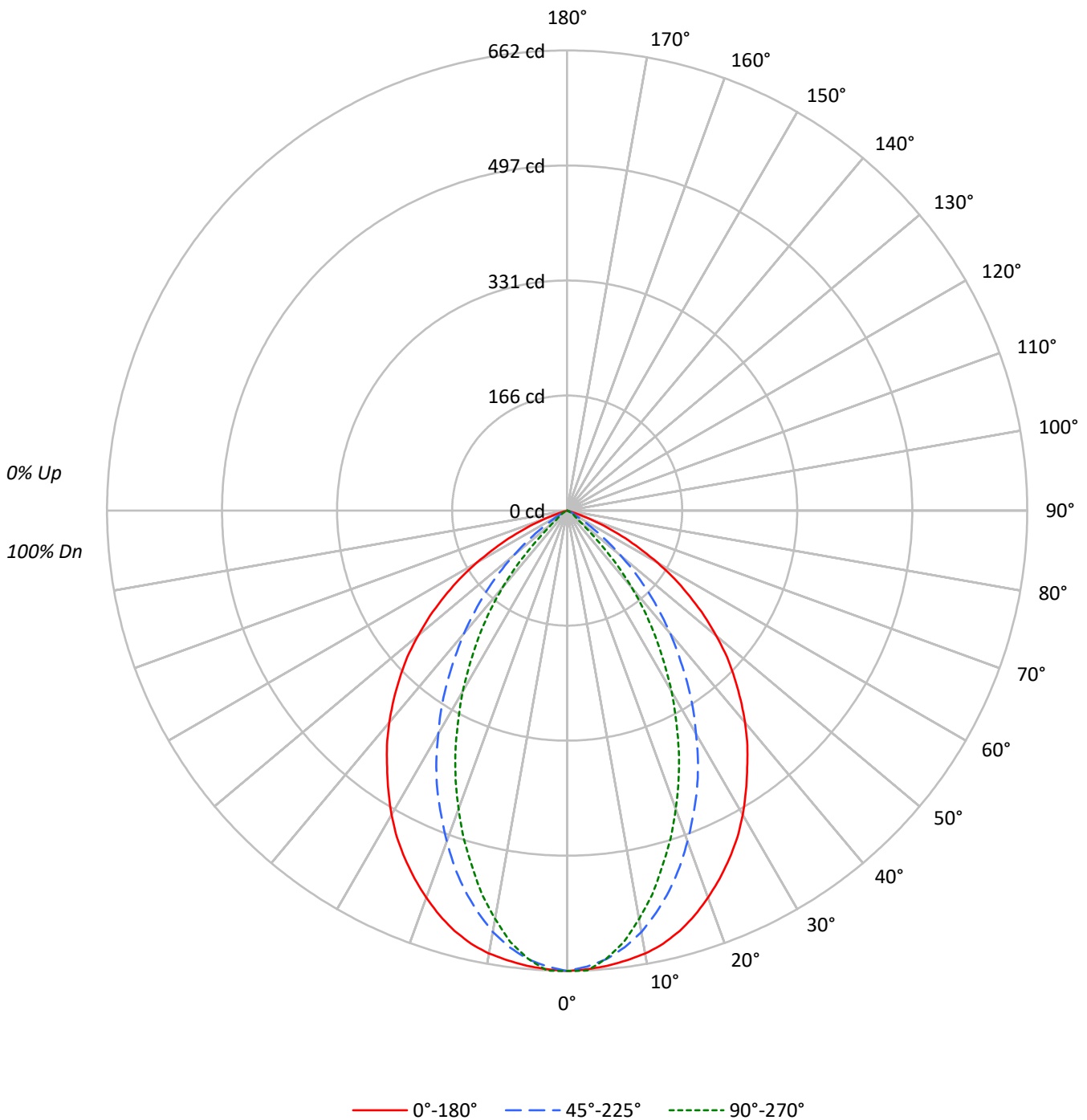
Lumens per Lamp: N/A  
Luminaire Lumens: 864.8 lumens  
Efficiency: N/A  
Efficacy: 24.7 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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°	5703	5703	5703
5°	5683	5600	5593
10°	5657	5381	5214
15°	5580	5051	4719
20°	5429	4640	4183
25°	5247	4201	3611
30°	5024	3683	2988
35°	4748	3159	2324
40°	4475	2593	1624
45°	4149	1994	804
50°	3744	1346	269
55°	3232	689	186
60°	2589	248	133
65°	1775	137	59
70°	796	73	48
75°	0	33	33
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4149 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.2	7.1
10°-20°	160.3	18.5
20°-30°	207.6	24.0
30°-40°	197.2	22.8
40°-50°	139.6	16.1
50°-60°	71.7	8.3
60°-70°	25.1	2.9
70°-80°	2.2	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°	429.0	49.6
0°-40°	626.2	72.4
0°-60°	837.6	96.8
0°-90°	864.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	864.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	662	662	662	662	662	
5°	658	658	648	648	647	62
15°	626	607	567	540	529	176
25°	552	509	442	395	380	254
35°	452	386	300	242	221	283
45°	341	262	164	94	66	262
55°	215	142	46	13	12	192
65°	87	42	7	4	3	87
75°	0	1	1	1	1	7
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	662.3	662.3	662.3	662.3	662.3
2.5°	660.4	662.3	656.6	661.3	662.3
5°	657.5	658.5	647.9	647.9	647.0
7.5°	652.7	650.8	633.6	626.9	625.9
10°	647.0	640.3	615.4	601.0	596.3
12.5°	638.4	625.9	592.4	571.4	565.6
15°	625.9	606.8	566.6	539.8	529.3
17.5°	610.6	585.7	537.9	505.3	494.8
20°	592.4	560.9	506.3	469.9	456.5
22.5°	573.3	536.9	473.8	432.6	419.2
25°	552.2	509.2	442.2	395.3	380.0
27.5°	530.2	479.5	407.7	358.9	338.8
30°	505.3	449.8	370.4	319.7	300.5
32.5°	478.5	417.3	336.9	282.3	259.4
35°	451.7	385.7	300.5	242.1	221.1
37.5°	425.9	356.0	264.2	202.9	182.8
40°	398.1	323.5	230.7	167.5	144.5
42.5°	369.4	291.9	196.2	131.1	106.2
45°	340.7	262.2	163.7	93.8	66.0
47.5°	312.0	230.7	132.1	59.3	35.4
50°	279.5	200.0	100.5	31.6	20.1
52.5°	248.8	171.3	71.8	18.2	15.3
55°	215.3	141.6	45.9	13.4	12.4
57.5°	183.8	112.9	25.8	10.5	9.6
60°	150.3	87.1	14.4	8.6	7.7
62.5°	116.8	63.2	9.6	5.7	4.8
65°	87.1	42.1	6.7	3.8	2.9
67.5°	57.4	23.9	4.8	1.9	1.9
70°	31.6	11.5	2.9	1.9	1.9
72.5°	11.5	3.8	1.9	1.0	1.0
75°	0.0	1.0	1.0	1.0	1.0
77.5°	0.0	0.0	0.0	0.0	1.0
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	14.58	15.83	14.94	16.15	16.46	0.00	0.00	0.00	0.00	0.00
	3H	14.85	15.96	15.23	16.29	16.66	0.00	0.00	0.00	0.00	0.00
	4H	14.78	15.80	15.18	16.15	16.54	0.00	0.00	0.00	0.00	0.00
	6H	14.69	15.63	15.11	16.00	16.40	0.00	0.00	0.00	0.00	0.00
	8H	14.65	15.53	15.08	15.92	16.33	0.00	0.00	0.00	0.00	0.00
	12H	14.60	15.44	15.03	15.83	16.26	0.00	0.00	0.00	0.00	0.00
4H	2H	14.35	15.37	14.75	15.73	16.11	0.00	0.00	0.00	0.00	0.00
	3H	14.63	15.46	15.05	15.87	16.27	0.00	0.00	0.00	0.00	0.00
	4H	14.54	15.28	14.98	15.70	16.14	0.00	0.00	0.00	0.00	0.00
	6H	14.45	15.08	14.92	15.53	16.00	0.00	0.00	0.00	0.00	0.00
	8H	14.39	14.98	14.86	15.43	15.90	0.00	0.00	0.00	0.00	0.00
	12H	14.34	14.86	14.83	15.34	15.82	0.00	0.00	0.00	0.00	0.00
8H	4H	14.39	14.98	14.86	15.43	15.90	0.00	0.00	0.00	0.00	0.00
	6H	14.28	14.76	14.79	15.26	15.74	0.00	0.00	0.00	0.00	0.00
	8H	14.22	14.64	14.74	15.16	15.66	0.00	0.00	0.00	0.00	0.00
	12H	14.17	14.54	14.68	15.04	15.61	0.00	0.00	0.00	0.00	0.00
12H	4H	14.34	14.86	14.83	15.34	15.82	0.00	0.00	0.00	0.00	0.00
	6H	14.22	14.64	14.74	15.16	15.66	0.00	0.00	0.00	0.00	0.00
	8H	14.17	14.54	14.68	15.04	15.61	0.00	0.00	0.00	0.00	0.00