

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: P1060264

Luminaire Tested: S124RDRP-S1020D930-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060264  
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-S1020D930-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: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

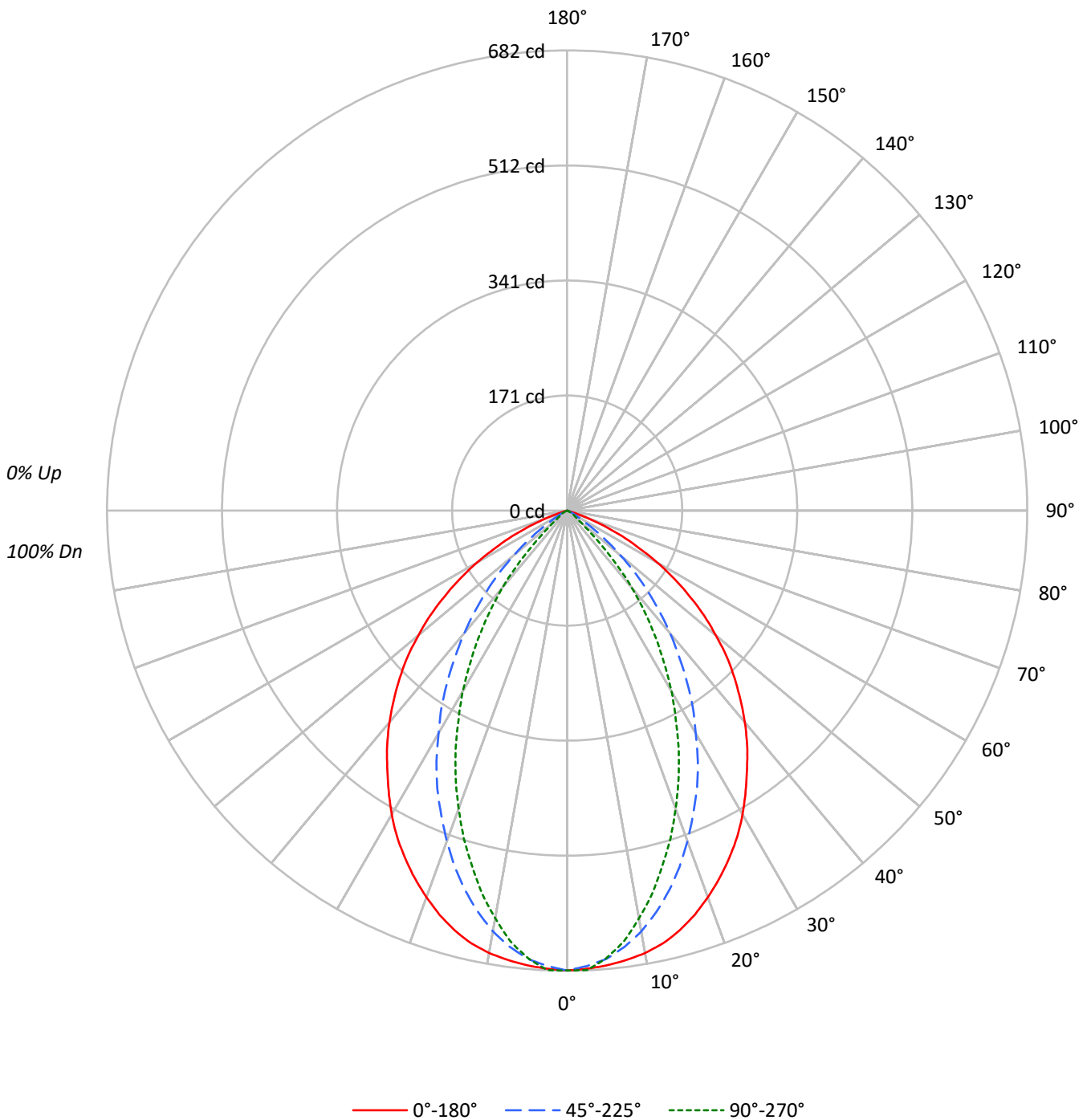
Lumens per Lamp: N/A  
Luminaire Lumens: 890.1 lumens  
Efficiency: N/A  
Efficacy: 25.4 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct

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°	5869	5869	5869
5°	5849	5765	5756
10°	5823	5538	5366
15°	5743	5198	4856
20°	5587	4775	4306
25°	5401	4324	3716
30°	5171	3790	3075
35°	4887	3251	2392
40°	4607	2669	1672
45°	4271	2051	828
50°	3853	1385	277
55°	3327	710	192
60°	2663	255	136
65°	1826	141	61
70°	818	76	50
75°	0	33	33
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4271 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.0	7.1
10°-20°	165.0	18.5
20°-30°	213.6	24.0
30°-40°	203.0	22.8
40°-50°	143.7	16.1
50°-60°	73.8	8.3
60°-70°	25.8	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°	441.6	49.6
0°-40°	644.5	72.4
0°-60°	862.0	96.8
0°-90°	890.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	890.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	682	682	682	682	682	
5°	677	678	667	667	666	64
15°	644	624	583	556	545	181
25°	568	524	455	407	391	261
35°	465	397	309	249	228	291
45°	351	270	168	96	68	270
55°	222	146	47	14	13	198
65°	90	43	7	4	3	89
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°	681.6	681.6	681.6	681.6	681.6
2.5°	679.7	681.6	675.7	680.6	681.6
5°	676.7	677.7	666.9	666.9	665.9
7.5°	671.8	669.8	652.1	645.2	644.2
10°	665.9	659.0	633.4	618.6	613.7
12.5°	657.0	644.2	609.7	588.1	582.1
15°	644.2	624.5	583.1	555.5	544.7
17.5°	628.4	602.8	553.6	520.1	509.3
20°	609.7	577.2	521.1	483.6	469.9
22.5°	590.0	552.6	487.6	445.2	431.4
25°	568.4	524.0	455.1	406.8	391.1
27.5°	545.7	493.5	419.6	369.4	348.7
30°	520.1	463.0	381.2	329.0	309.3
32.5°	492.5	429.5	346.7	290.6	266.9
35°	464.9	397.0	309.3	249.2	227.5
37.5°	438.3	366.4	271.9	208.8	188.1
40°	409.8	332.9	237.4	172.4	148.7
42.5°	380.2	300.4	201.9	134.9	109.3
45°	350.7	269.9	168.4	96.5	68.0
47.5°	321.1	237.4	135.9	61.1	36.4
50°	287.6	205.9	103.4	32.5	20.7
52.5°	256.1	176.3	73.9	18.7	15.8
55°	221.6	145.8	47.3	13.8	12.8
57.5°	189.1	116.2	26.6	10.8	9.9
60°	154.6	89.6	14.8	8.9	7.9
62.5°	120.2	65.0	9.9	5.9	4.9
65°	89.6	43.3	6.9	3.9	3.0
67.5°	59.1	24.6	4.9	2.0	2.0
70°	32.5	11.8	3.0	2.0	2.0
72.5°	11.8	3.9	2.0	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	14.68	15.93	15.04	16.24	16.56	0.00	0.00	0.00	0.00	0.00
	3H	14.95	16.06	15.33	16.39	16.75	0.00	0.00	0.00	0.00	0.00
	4H	14.88	15.90	15.28	16.25	16.64	0.00	0.00	0.00	0.00	0.00
	6H	14.79	15.73	15.21	16.10	16.50	0.00	0.00	0.00	0.00	0.00
	8H	14.74	15.63	15.18	16.02	16.43	0.00	0.00	0.00	0.00	0.00
	12H	14.70	15.54	15.13	15.93	16.36	0.00	0.00	0.00	0.00	0.00
4H	2H	14.45	15.47	14.85	15.83	16.21	0.00	0.00	0.00	0.00	0.00
	3H	14.73	15.56	15.15	15.97	16.37	0.00	0.00	0.00	0.00	0.00
	4H	14.64	15.38	15.08	15.80	16.24	0.00	0.00	0.00	0.00	0.00
	6H	14.55	15.18	15.02	15.63	16.10	0.00	0.00	0.00	0.00	0.00
	8H	14.49	15.08	14.96	15.53	16.00	0.00	0.00	0.00	0.00	0.00
	12H	14.44	14.96	14.93	15.44	15.92	0.00	0.00	0.00	0.00	0.00
8H	4H	14.49	15.08	14.96	15.53	16.00	0.00	0.00	0.00	0.00	0.00
	6H	14.38	14.86	14.89	15.36	15.84	0.00	0.00	0.00	0.00	0.00
	8H	14.32	14.74	14.84	15.26	15.75	0.00	0.00	0.00	0.00	0.00
	12H	14.27	14.64	14.78	15.14	15.71	0.00	0.00	0.00	0.00	0.00
12H	4H	14.44	14.96	14.93	15.44	15.92	0.00	0.00	0.00	0.00	0.00
	6H	14.32	14.74	14.84	15.26	15.75	0.00	0.00	0.00	0.00	0.00
	8H	14.27	14.64	14.78	15.14	15.71	0.00	0.00	0.00	0.00	0.00