

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: P1060660

Luminaire Tested: S124RDRP-H1020D927-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060660  
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-H1020D927-X4F0-XX-UDD-BVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

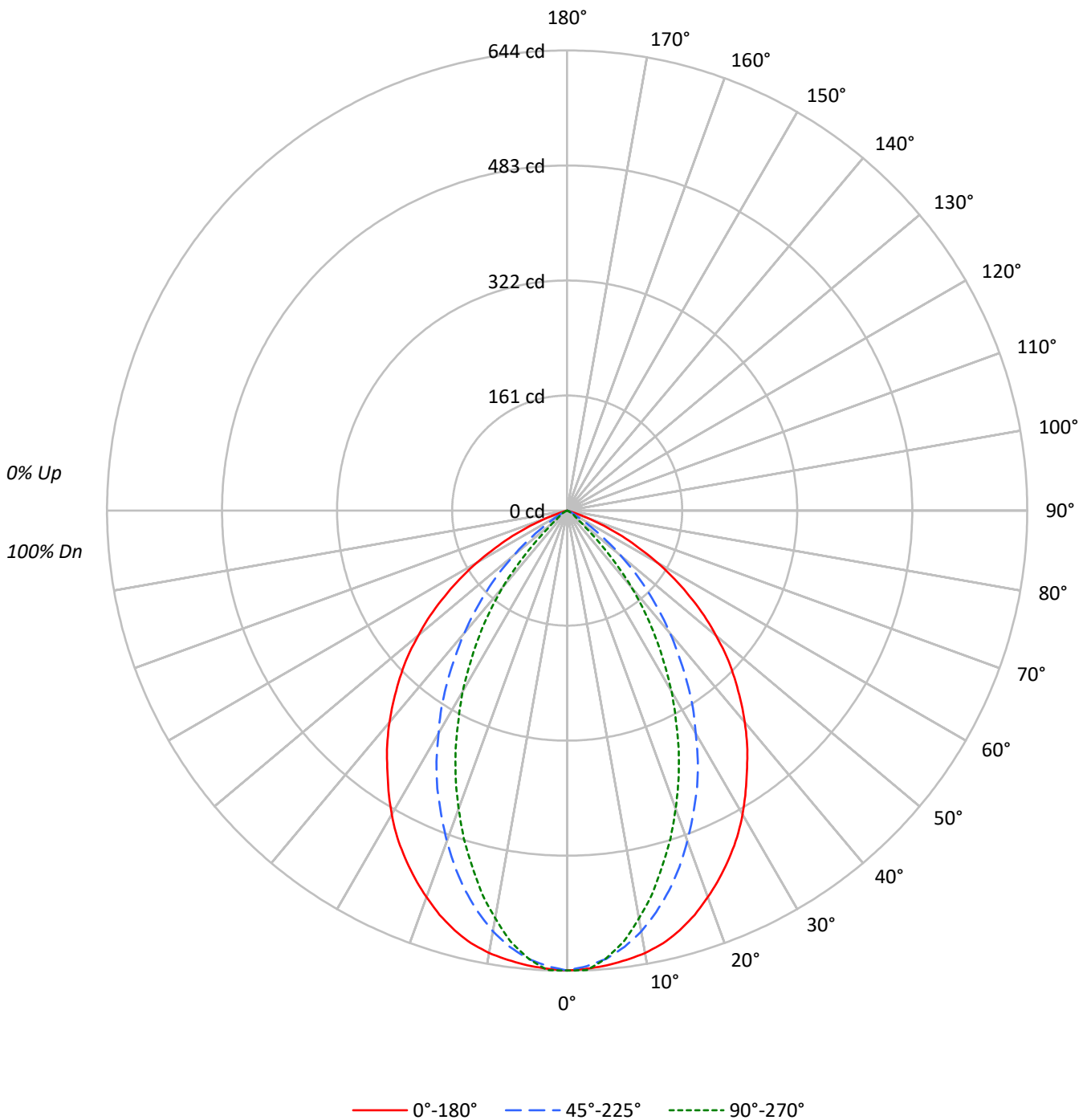
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 840.5 lumens  
Efficiency: N/A  
Efficacy: 26.9 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): 31.2  
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	112	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75
4	92	83	76	71	90	82	76	71	79	74	70	77	73	69	75	71	68
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	47
9	67	56	49	44	66	56	49	44	54	48	44	54	48	44	53	48	44
10	64	52	46	41	63	52	45	41	51	45	41	50	45	41	49	44	41

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5542	5542	5542
5°	5524	5443	5435
10°	5498	5230	5067
15°	5423	4909	4586
20°	5276	4509	4066
25°	5099	4083	3509
30°	4883	3580	2904
35°	4615	3071	2259
40°	4349	2520	1578
45°	4032	1936	782
50°	3639	1309	261
55°	3142	670	182
60°	2514	241	127
65°	1724	132	57
70°	773	70	48
75°	0	30	30
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4032 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.4	7.1
10°-20°	155.8	18.5
20°-30°	201.7	24.0
30°-40°	191.6	22.8
40°-50°	135.7	16.1
50°-60°	69.7	8.3
60°-70°	24.4	2.9
70°-80°	2.1	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°	416.9	49.6
0°-40°	608.6	72.4
0°-60°	814.0	96.8
0°-90°	840.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	840.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	644	644	644	644	644	
5°	639	640	630	630	629	61
15°	608	590	551	525	514	171
25°	537	495	430	384	369	247
35°	439	375	292	235	215	275
45°	331	255	159	91	64	255
55°	209	138	45	13	12	187
65°	85	41	6	4	3	84
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°	643.6	643.6	643.6	643.6	643.6
2.5°	641.8	643.6	638.1	642.7	643.6
5°	639.0	639.9	629.7	629.7	628.8
7.5°	634.3	632.5	615.7	609.2	608.3
10°	628.8	622.2	598.1	584.1	579.5
12.5°	620.4	608.3	575.7	555.3	549.7
15°	608.3	589.7	550.6	524.6	514.4
17.5°	593.4	569.2	522.7	491.1	480.9
20°	575.7	545.0	492.0	456.7	443.7
22.5°	557.1	521.8	460.4	420.4	407.4
25°	536.7	494.8	429.7	384.1	369.3
27.5°	515.3	466.0	396.2	348.8	329.3
30°	491.1	437.2	360.0	310.7	292.1
32.5°	465.1	405.5	327.4	274.4	252.1
35°	439.0	374.8	292.1	235.3	214.9
37.5°	413.9	346.0	256.7	197.2	177.7
40°	386.9	314.4	224.2	162.8	140.4
42.5°	359.0	283.7	190.7	127.4	103.2
45°	331.1	254.8	159.0	91.2	64.2
47.5°	303.2	224.2	128.4	57.7	34.4
50°	271.6	194.4	97.7	30.7	19.5
52.5°	241.8	166.5	69.8	17.7	14.9
55°	209.3	137.7	44.6	13.0	12.1
57.5°	178.6	109.8	25.1	10.2	9.3
60°	146.0	84.6	14.0	8.4	7.4
62.5°	113.5	61.4	9.3	5.6	4.7
65°	84.6	40.9	6.5	3.7	2.8
67.5°	55.8	23.3	4.7	1.9	1.9
70°	30.7	11.2	2.8	1.9	1.9
72.5°	11.2	3.7	1.9	0.9	0.9
75°	0.0	0.9	0.9	0.9	0.9
77.5°	0.0	0.0	0.0	0.0	0.9
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	14.48	15.74	14.85	16.05	16.36	0.00	0.00	0.00	0.00	0.00
	3H	14.76	15.86	15.14	16.19	16.56	0.00	0.00	0.00	0.00	0.00
	4H	14.68	15.71	15.09	16.06	16.44	0.00	0.00	0.00	0.00	0.00
	6H	14.60	15.53	15.01	15.91	16.30	0.00	0.00	0.00	0.00	0.00
	8H	14.55	15.44	14.98	15.83	16.23	0.00	0.00	0.00	0.00	0.00
	12H	14.50	15.35	14.94	15.73	16.16	0.00	0.00	0.00	0.00	0.00
4H	2H	14.25	15.28	14.66	15.63	16.01	0.00	0.00	0.00	0.00	0.00
	3H	14.54	15.37	14.95	15.77	16.17	0.00	0.00	0.00	0.00	0.00
	4H	14.44	15.18	14.88	15.60	16.05	0.00	0.00	0.00	0.00	0.00
	6H	14.36	14.99	14.82	15.44	15.90	0.00	0.00	0.00	0.00	0.00
	8H	14.30	14.88	14.77	15.33	15.80	0.00	0.00	0.00	0.00	0.00
	12H	14.24	14.76	14.73	15.25	15.72	0.00	0.00	0.00	0.00	0.00
8H	4H	14.30	14.88	14.77	15.33	15.80	0.00	0.00	0.00	0.00	0.00
	6H	14.19	14.66	14.69	15.16	15.65	0.00	0.00	0.00	0.00	0.00
	8H	14.12	14.55	14.65	15.07	15.56	0.00	0.00	0.00	0.00	0.00
	12H	14.07	14.45	14.59	14.94	15.52	0.00	0.00	0.00	0.00	0.00
12H	4H	14.24	14.76	14.73	15.25	15.72	0.00	0.00	0.00	0.00	0.00
	6H	14.12	14.55	14.65	15.07	15.56	0.00	0.00	0.00	0.00	0.00
	8H	14.07	14.45	14.59	14.94	15.52	0.00	0.00	0.00	0.00	0.00