

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: P1060969

Luminaire Tested: S124RDRP-H795D840-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060969  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-38)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-H795D840-X4F0-XX-UDD-SVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

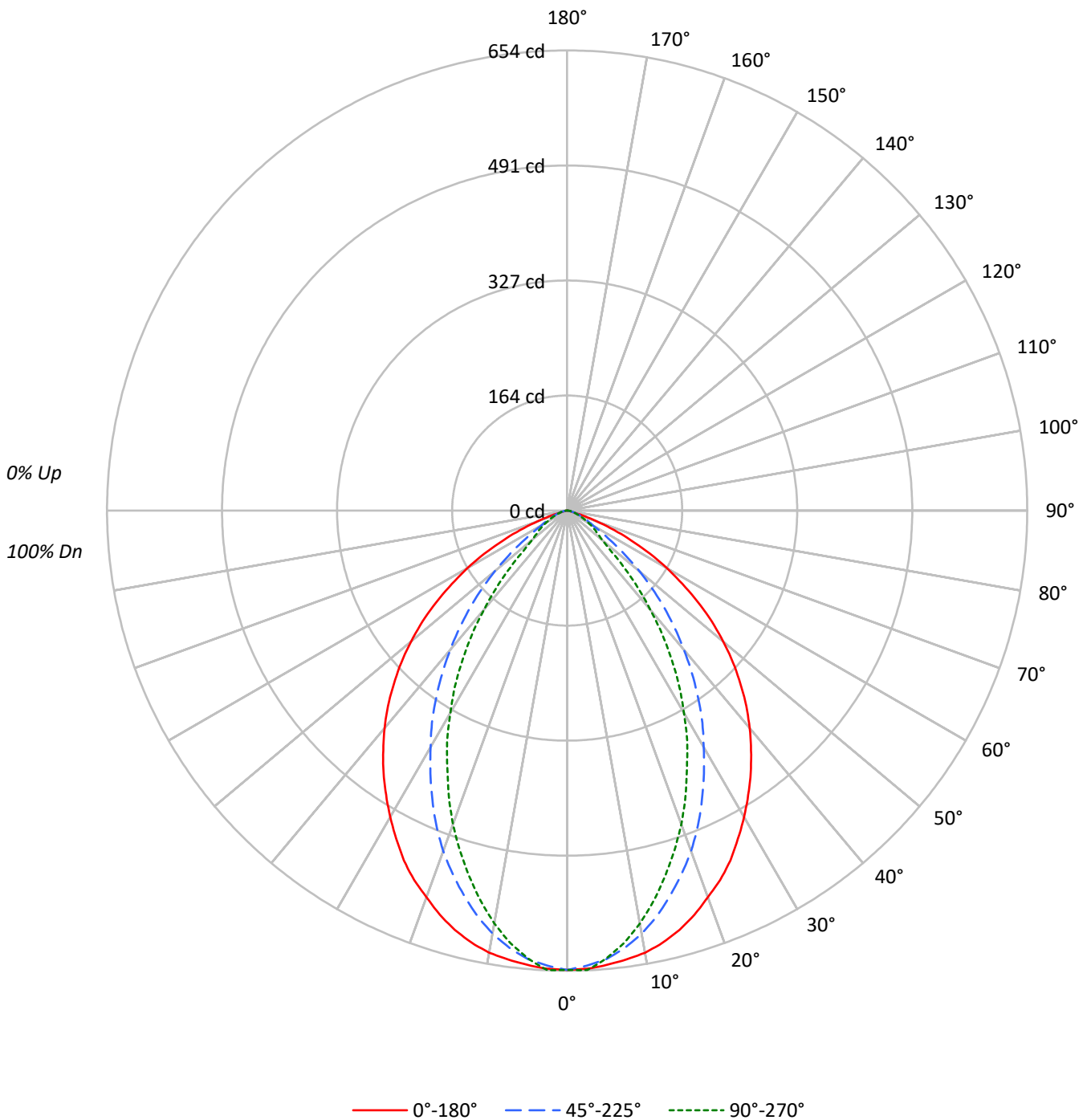
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 962.4 lumens  
Efficiency: N/A  
Efficacy: 41.0 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 23.5  
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	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	108	105	102	109	106	103	101	102	100	97	98	96	94	95	93	92	90																												
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80																												
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71																												
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63																												
5	84	74	66	61	82	73	66	60	71	65	60	69	63	59	67	62	59	57																												
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51																												
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	48	47																												
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43																												
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39																												
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36																												

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

	0°	45°	90°
0°	5621	5621	5621
5°	5603	5531	5524
10°	5580	5338	5210
15°	5500	5049	4794
20°	5358	4718	4347
25°	5215	4307	3826
30°	5000	3858	3300
35°	4784	3411	2726
40°	4537	2904	2067
45°	4243	2373	1388
50°	3880	1798	863
55°	3409	1188	731
60°	2819	729	601
65°	2042	562	487
70°	1110	415	370
75°	246	306	336
80°	183	228	273
85°	178	178	277

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4243 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.5	6.3
10°-20°	160.6	16.7
20°-30°	212.8	22.1
30°-40°	211.2	21.9
40°-50°	162.5	16.9
50°-60°	96.9	10.1
60°-70°	44.0	4.6
70°-80°	11.4	1.2
80°-90°	2.5	0.3
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°	433.9	45.1
0°-40°	645.1	67.0
0°-60°	904.5	94.0
0°-90°	962.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	962.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	653	653	653	653	653	
5°	648	649	640	640	639	62
15°	617	601	566	547	538	174
25°	549	509	453	416	403	252
35°	455	398	324	275	259	284
45°	348	280	195	136	114	268
55°	227	162	79	50	49	202
65°	100	60	28	24	24	101
75°	7	9	9	10	10	15
85°	2	2	2	3	3	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	652.8	652.8	652.8	652.8	652.8
2.5°	651.8	652.8	647.3	651.8	653.7
5°	648.2	649.1	639.9	639.9	639.0
7.5°	643.6	641.7	627.0	621.5	619.7
10°	638.1	631.6	610.5	599.4	595.8
12.5°	628.9	618.8	590.2	574.6	568.2
15°	616.9	601.3	566.3	547.0	537.8
17.5°	602.2	582.9	541.5	516.7	506.6
20°	584.7	559.0	514.9	483.6	474.4
22.5°	568.2	536.0	485.4	449.6	439.5
25°	548.9	509.3	453.3	415.6	402.7
27.5°	525.9	483.6	421.1	382.5	369.6
30°	502.9	456.0	388.0	347.5	331.9
32.5°	479.0	427.5	357.6	311.7	297.0
35°	455.1	398.1	324.5	274.9	259.3
37.5°	429.4	368.7	291.4	240.0	222.5
40°	403.6	340.2	258.3	205.9	183.9
42.5°	377.0	310.8	226.2	171.0	148.9
45°	348.4	280.4	194.9	136.1	114.0
47.5°	319.9	251.9	163.7	102.1	81.8
50°	289.6	221.6	134.2	74.5	64.4
52.5°	259.3	192.2	104.8	57.9	55.2
55°	227.1	161.8	79.1	49.6	48.7
57.5°	194.0	134.2	57.0	43.2	41.4
60°	163.7	108.5	42.3	36.8	34.9
62.5°	132.4	81.8	34.9	30.3	28.5
65°	100.2	59.8	27.6	23.9	23.9
67.5°	72.6	40.5	22.1	19.3	18.4
70°	44.1	24.8	16.5	15.6	14.7
72.5°	22.1	14.7	12.9	12.0	12.0
75°	7.4	9.2	9.2	10.1	10.1
77.5°	5.5	6.4	6.4	7.4	7.4
80°	3.7	4.6	4.6	5.5	5.5
82.5°	2.8	2.8	3.7	3.7	4.6
85°	1.8	1.8	1.8	2.8	2.8
87.5°	0.9	0.9	0.9	1.8	1.8
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	15.12	16.45	15.48	16.76	17.08	6.67	8.00	7.03	8.31	8.63
	3H	15.63	16.81	16.01	17.14	17.50	7.48	8.66	7.86	8.99	9.36
	4H	15.59	16.69	15.99	17.04	17.42	7.77	8.86	8.17	9.21	9.60
	6H	15.53	16.53	15.94	16.91	17.30	7.94	8.95	8.35	9.32	9.71
	8H	15.49	16.44	15.92	16.83	17.24	8.00	8.96	8.43	9.35	9.75
	12H	15.45	16.36	15.88	16.75	17.18	8.05	8.96	8.48	9.34	9.77
4H	2H	14.96	16.06	15.36	16.41	16.79	7.11	8.21	7.51	8.56	8.94
	3H	15.51	16.41	15.93	16.81	17.21	8.07	8.97	8.48	9.37	9.77
	4H	15.48	16.28	15.92	16.70	17.14	8.44	9.23	8.87	9.65	10.09
	6H	15.43	16.11	15.89	16.56	17.03	8.69	9.37	9.15	9.82	10.29
	8H	15.38	16.02	15.85	16.47	16.94	8.78	9.42	9.25	9.86	10.33
	12H	15.34	15.91	15.83	16.39	16.87	8.85	9.42	9.34	9.90	10.38
8H	4H	15.37	16.01	15.84	16.46	16.93	8.52	9.16	8.99	9.61	10.08
	6H	15.31	15.83	15.81	16.33	16.81	8.84	9.36	9.34	9.85	10.34
	8H	15.26	15.73	15.78	16.25	16.74	8.97	9.44	9.49	9.95	10.44
	12H	15.23	15.64	15.75	16.14	16.71	9.11	9.52	9.62	10.02	10.59
12H	4H	15.33	15.89	15.81	16.38	16.85	8.50	9.06	8.98	9.55	10.02
	6H	15.25	15.72	15.78	16.24	16.73	8.82	9.28	9.34	9.80	10.29
	8H	15.23	15.64	15.74	16.14	16.71	8.99	9.40	9.50	9.90	10.47