

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: P1060342

Luminaire Tested: S124RDRP-S1195D927-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060342  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-37)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S1195D927-X4F0-XX-UDD-WVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

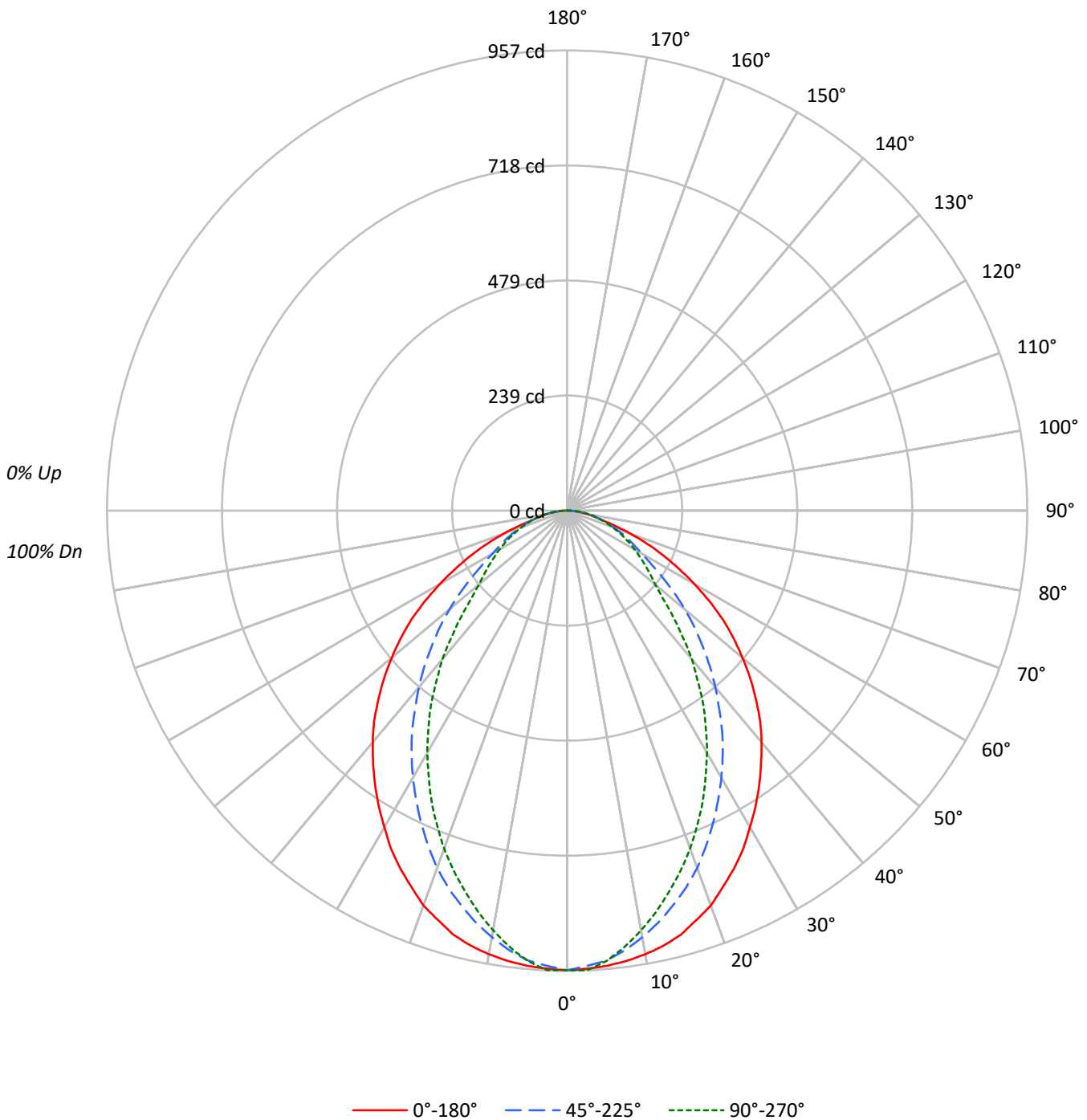
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1843.1 lumens  
Efficiency: N/A  
Efficacy: 44.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.8  
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	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	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86																												
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76	74																												
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64																												
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56																												
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																												
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44																												
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40																												
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36																												
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33																												
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30																												

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

	0°	45°	90°
0°	8231	8231	8231
5°	8214	8117	8126
10°	8191	7877	7749
15°	8141	7580	7310
20°	8008	7247	6855
25°	7802	6819	6339
30°	7561	6378	5785
35°	7321	5915	5195
40°	7071	5391	4532
45°	6758	4842	3789
50°	6379	4273	3204
55°	5936	3626	2968
60°	5261	3076	2806
65°	4487	2838	2655
70°	3507	2631	2518
75°	2392	2429	2429
80°	2063	2286	2341
85°	1778	2223	2440

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6758 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	88.9	4.8
10°-20°	241.5	13.1
20°-30°	335.3	18.2
30°-40°	359.4	19.5
40°-50°	318.4	17.3
50°-60°	239.9	13.0
60°-70°	155.4	8.4
70°-80°	79.7	4.3
80°-90°	24.5	1.3
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°	665.8	36.1
0°-40°	1025.2	55.6
0°-60°	1583.5	85.9
0°-90°	1843.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1843.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	956	956	956	956	956	
5°	950	951	939	940	940	90
15°	913	893	850	829	820	257
25°	821	777	718	680	667	378
35°	696	634	563	512	494	435
45°	555	483	398	336	311	428
55°	395	329	242	203	198	351
65°	220	178	139	131	130	218
75°	72	75	73	73	73	85
85°	18	19	22	25	25	21
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	955.9	955.9	955.9	955.9	955.9
2.5°	953.6	957.0	948.0	954.7	957.0
5°	950.3	951.4	939.0	940.1	940.1
7.5°	944.6	942.4	922.2	916.6	915.4
10°	936.8	930.0	900.8	889.6	886.2
12.5°	926.7	914.3	877.2	861.5	854.8
15°	913.2	893.0	850.3	828.9	820.0
17.5°	893.0	867.1	822.2	795.2	785.1
20°	873.9	839.1	790.8	757.1	748.1
22.5°	846.9	809.8	754.8	718.9	707.6
25°	821.1	777.3	717.7	679.6	667.2
27.5°	793.0	743.6	679.6	639.1	623.4
30°	760.4	707.6	641.4	598.7	581.8
32.5°	729.0	672.8	602.1	554.9	536.9
35°	696.4	633.5	562.7	512.2	494.2
37.5°	662.7	596.4	518.9	469.5	445.9
40°	629.0	559.4	479.6	423.5	403.2
42.5°	594.2	521.2	439.2	380.8	354.9
45°	554.9	483.0	397.6	335.8	311.1
47.5°	516.7	445.9	359.4	292.0	269.6
50°	476.2	406.6	319.0	253.9	239.2
52.5°	435.8	366.2	279.7	224.6	217.9
55°	395.4	329.1	241.5	203.3	197.7
57.5°	350.4	290.9	207.8	184.2	179.7
60°	305.5	249.4	178.6	166.2	162.9
62.5°	261.7	213.4	158.4	148.3	146.0
65°	220.2	177.5	139.3	131.4	130.3
67.5°	179.7	146.0	121.3	116.8	114.6
70°	139.3	116.8	104.5	102.2	100.0
72.5°	103.3	94.4	88.7	87.6	86.5
75°	71.9	75.3	73.0	73.0	73.0
77.5°	57.3	58.4	59.5	60.7	59.5
80°	41.6	44.9	46.1	48.3	47.2
82.5°	29.2	31.5	34.8	35.9	37.1
85°	18.0	19.1	22.5	24.7	24.7
87.5°	7.9	9.0	11.2	13.5	14.6
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	17.76	19.26	18.13	19.57	19.89	14.33	15.83	14.69	16.14	16.45
	3H	18.97	20.31	19.35	20.64	21.00	16.02	17.37	16.40	17.69	18.06
	4H	19.27	20.53	19.67	20.88	21.26	16.70	17.96	17.10	18.31	18.69
	6H	19.48	20.64	19.89	21.01	21.40	17.25	18.41	17.66	18.78	19.17
	8H	19.53	20.64	19.96	21.03	21.43	17.47	18.57	17.89	18.96	19.37
	12H	19.57	20.63	20.00	21.01	21.44	17.64	18.70	18.07	19.08	19.51
4H	2H	17.90	19.16	18.30	19.51	19.89	14.99	16.25	15.39	16.60	16.97
	3H	19.31	20.35	19.72	20.75	21.15	16.90	17.94	17.31	18.34	18.74
	4H	19.73	20.67	20.17	21.09	21.53	17.70	18.64	18.13	19.06	19.49
	6H	20.06	20.88	20.52	21.32	21.78	18.39	19.20	18.85	19.65	20.11
	8H	20.16	20.92	20.62	21.36	21.83	18.66	19.43	19.12	19.87	20.34
	12H	20.23	20.91	20.71	21.39	21.86	18.89	19.57	19.37	20.05	20.52
8H	4H	19.86	20.62	20.32	21.07	21.54	18.02	18.78	18.48	19.22	19.69
	6H	20.28	20.91	20.78	21.40	21.88	18.84	19.48	19.34	19.97	20.45
	8H	20.44	21.01	20.95	21.52	22.00	19.21	19.78	19.72	20.29	20.78
	12H	20.57	21.07	21.08	21.56	22.13	19.54	20.05	20.05	20.54	21.10
12H	4H	19.87	20.55	20.35	21.03	21.50	18.04	18.73	18.53	19.21	19.68
	6H	20.31	20.87	20.82	21.38	21.87	18.90	19.47	19.42	19.98	20.47
	8H	20.52	21.02	21.03	21.51	22.07	19.34	19.84	19.85	20.33	20.90