

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: P1060306

Luminaire Tested: S124RDRP-S1195D830-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060306  
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-S1195D830-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: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

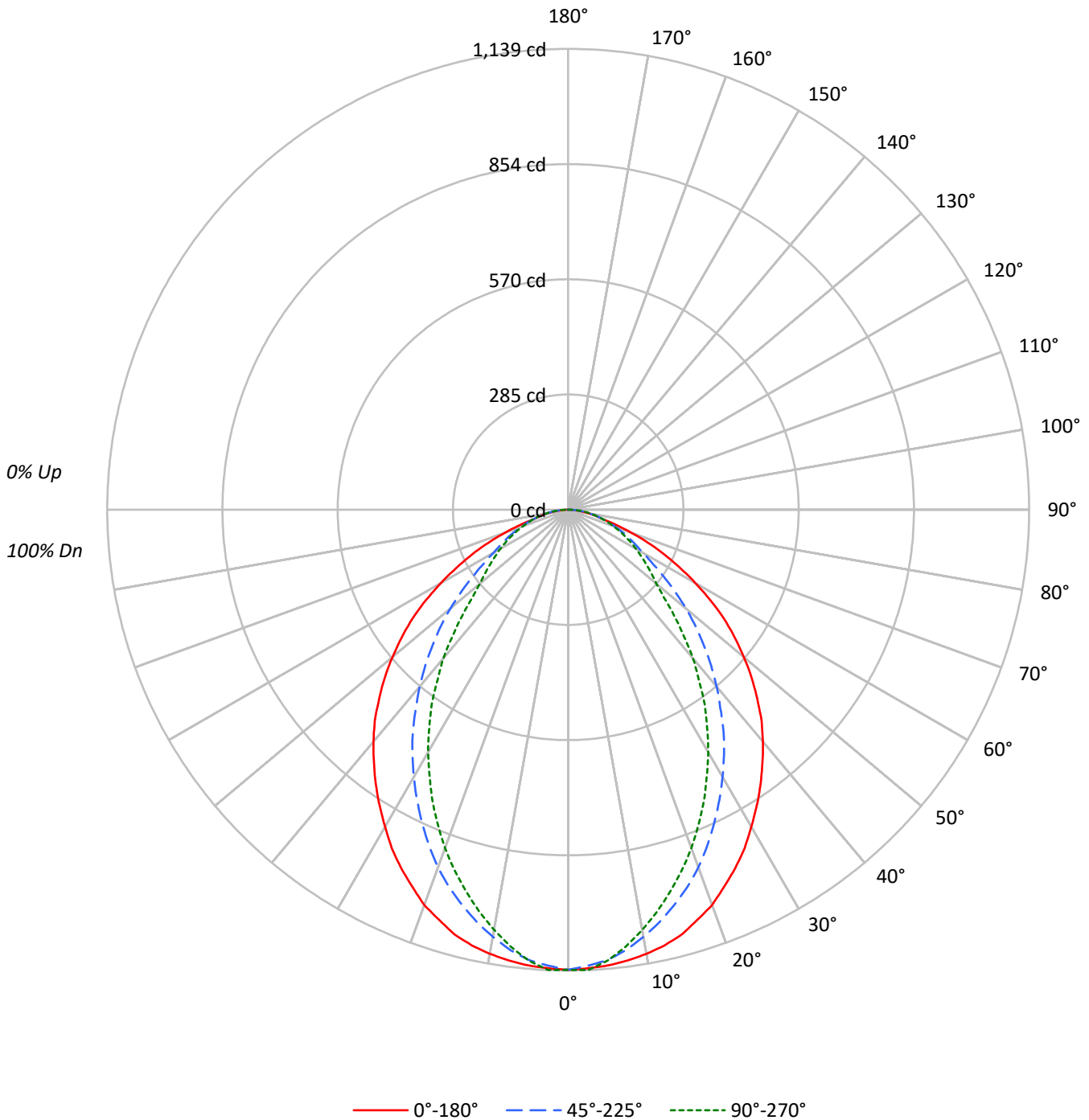
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2192.9 lumens  
Efficiency: N/A  
Efficacy: 52.5 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°	9793	9793	9793
5°	9773	9658	9669
10°	9746	9372	9220
15°	9686	9019	8697
20°	9528	8621	8157
25°	9282	8114	7542
30°	8997	7588	6884
35°	8710	7039	6181
40°	8413	6415	5393
45°	8040	5761	4508
50°	7590	5084	3814
55°	7062	4313	3531
60°	6260	3660	3338
65°	5336	3376	3158
70°	4172	3130	2994
75°	2845	2891	2891
80°	2450	2718	2782
85°	2114	2638	2905

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8040 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.8	4.8
10°-20°	287.4	13.1
20°-30°	398.9	18.2
30°-40°	427.6	19.5
40°-50°	378.9	17.3
50°-60°	285.5	13.0
60°-70°	184.9	8.4
70°-80°	94.9	4.3
80°-90°	29.1	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°	792.1	36.1
0°-40°	1219.7	55.6
0°-60°	1884.1	85.9
0°-90°	2192.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2192.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1137	1137	1137	1137	1137	
5°	1131	1132	1117	1119	1119	107
15°	1086	1062	1012	986	976	306
25°	977	925	854	808	794	450
35°	829	754	670	609	588	518
45°	660	575	473	400	370	509
55°	470	392	287	242	235	418
65°	262	211	166	156	155	260
75°	86	90	87	87	87	101
85°	21	23	27	29	29	25
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1137.3	1137.3	1137.3	1137.3	1137.3
2.5°	1134.6	1138.6	1127.9	1136.0	1138.6
5°	1130.6	1132.0	1117.3	1118.6	1118.6
7.5°	1123.9	1121.3	1097.2	1090.5	1089.2
10°	1114.6	1106.6	1071.8	1058.5	1054.4
12.5°	1102.6	1087.9	1043.7	1025.0	1017.0
15°	1086.5	1062.5	1011.7	986.3	975.6
17.5°	1062.5	1031.7	978.3	946.2	934.2
20°	1039.7	998.3	940.8	900.8	890.1
22.5°	1007.7	963.6	898.1	855.3	841.9
25°	976.9	924.8	854.0	808.5	793.8
27.5°	943.5	884.7	808.5	760.4	741.7
30°	904.8	841.9	763.1	712.3	692.3
32.5°	867.3	800.5	716.3	660.2	638.8
35°	828.6	753.7	669.6	609.4	588.0
37.5°	788.5	709.6	617.4	558.6	530.6
40°	748.4	665.5	570.7	503.8	479.8
42.5°	707.0	620.1	522.5	453.0	422.3
45°	660.2	574.7	473.1	399.6	370.2
47.5°	614.8	530.6	427.7	347.5	320.7
50°	566.6	483.8	379.5	302.0	284.7
52.5°	518.5	435.7	332.8	267.3	259.3
55°	470.4	391.6	287.3	241.9	235.2
57.5°	417.0	346.1	247.2	219.2	213.8
60°	363.5	296.7	212.5	197.8	193.8
62.5°	311.4	253.9	188.4	176.4	173.7
65°	261.9	211.2	165.7	156.4	155.0
67.5°	213.8	173.7	144.3	139.0	136.3
70°	165.7	139.0	124.3	121.6	118.9
72.5°	123.0	112.3	105.6	104.2	102.9
75°	85.5	89.5	86.9	86.9	86.9
77.5°	68.2	69.5	70.8	72.2	70.8
80°	49.4	53.5	54.8	57.5	56.1
82.5°	34.7	37.4	41.4	42.8	44.1
85°	21.4	22.7	26.7	29.4	29.4
87.5°	9.4	10.7	13.4	16.0	17.4
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	18.37	19.86	18.73	20.18	20.49	14.93	16.43	15.30	16.74	17.06
	3H	19.57	20.91	19.95	21.24	21.60	16.63	17.97	17.00	18.30	18.66
	4H	19.88	21.14	20.28	21.49	21.87	17.30	18.56	17.71	18.91	19.29
	6H	20.08	21.24	20.49	21.61	22.00	17.85	19.02	18.27	19.38	19.78
	8H	20.14	21.25	20.56	21.64	22.04	18.07	19.18	18.50	19.57	19.97
	12H	20.17	21.23	20.60	21.61	22.04	18.24	19.30	18.67	19.69	20.11
4H	2H	18.51	19.77	18.91	20.12	20.50	15.59	16.85	15.99	17.20	17.58
	3H	19.91	20.96	20.32	21.36	21.76	17.50	18.55	17.91	18.95	19.35
	4H	20.34	21.28	20.77	21.69	22.13	18.30	19.24	18.74	19.66	20.10
	6H	20.66	21.48	21.12	21.92	22.38	18.99	19.81	19.45	20.25	20.71
	8H	20.76	21.52	21.22	21.97	22.44	19.26	20.03	19.73	20.47	20.94
	12H	20.83	21.51	21.31	21.99	22.46	19.49	20.18	19.98	20.66	21.13
8H	4H	20.46	21.23	20.93	21.67	22.14	18.62	19.38	19.08	19.83	20.30
	6H	20.89	21.52	21.38	22.01	22.49	19.45	20.08	19.95	20.57	21.05
	8H	21.04	21.61	21.56	22.12	22.61	19.81	20.38	20.33	20.89	21.38
	12H	21.17	21.67	21.68	22.16	22.73	20.15	20.65	20.66	21.14	21.71
12H	4H	20.47	21.15	20.95	21.63	22.10	18.65	19.33	19.13	19.81	20.28
	6H	20.91	21.48	21.42	21.99	22.48	19.51	20.08	20.02	20.59	21.08
	8H	21.12	21.62	21.63	22.11	22.68	19.94	20.44	20.45	20.93	21.50