

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: P1060701

Luminaire Tested: S124RDRP-H1020D950-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060701  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-H1020D950-X4F0-XX-UDD-SVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

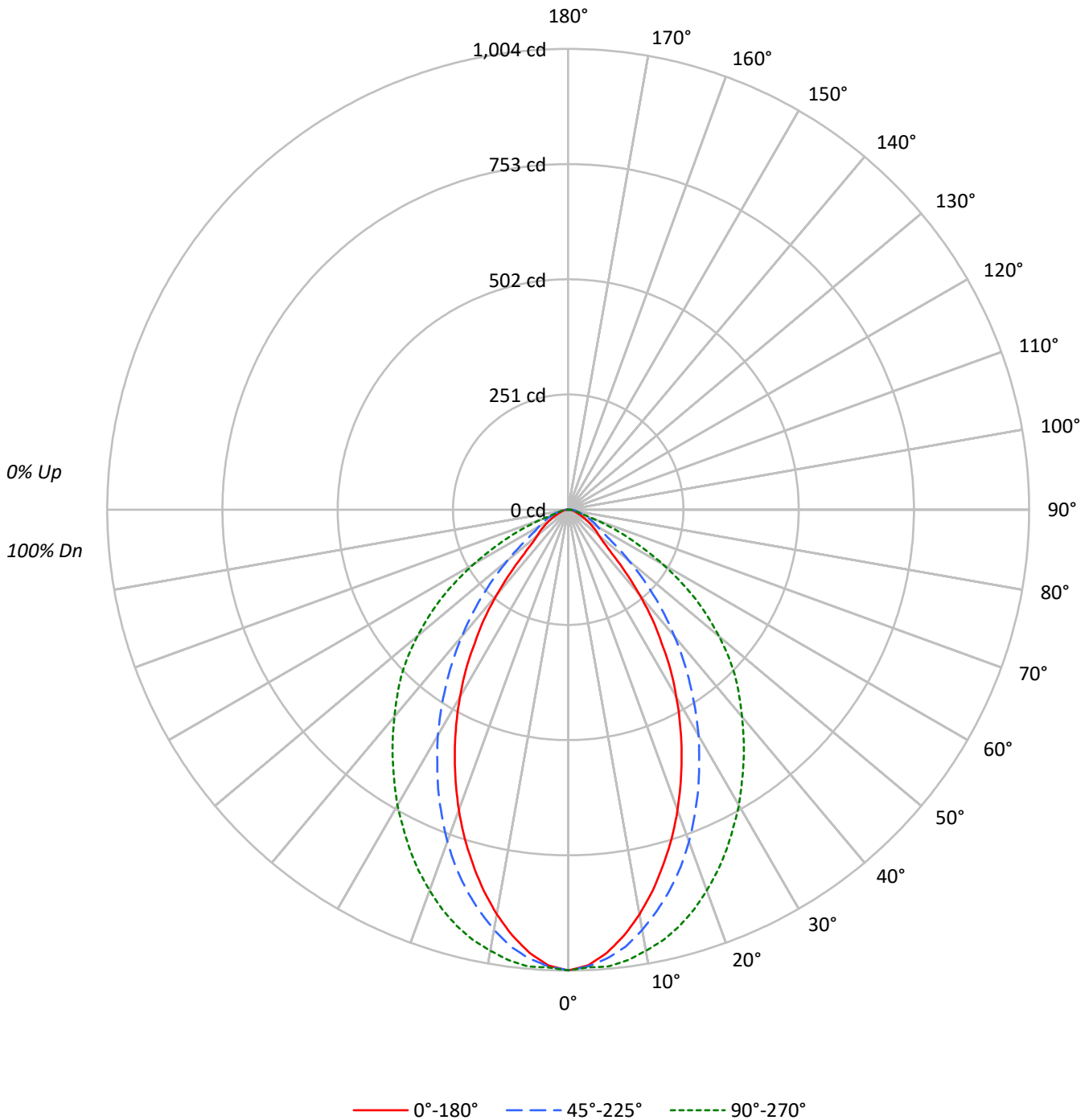
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1420.4 lumens  
Efficiency: N/A  
Efficacy: 45.5 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01  
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					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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89					89			
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79					79			
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70					70			
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63					63			
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57					57			
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51					51			
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47					47			
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43					43			
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39					39			
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36					36			

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

	0°	45°	90°
0°	8642	8642	8642
5°	8374	8481	8636
10°	7824	8128	8530
15°	7137	7637	8367
20°	6381	7049	8087
25°	5551	6371	7756
30°	4682	5642	7392
35°	3724	4857	7002
40°	2710	4046	6618
45°	1639	3196	6268
50°	1172	2314	5738
55°	994	1566	5067
60°	811	1274	4094
65°	640	1143	2946
70°	536	959	1553
75°	486	895	782
80°	501	888	779
85°	662	1334	889

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6268 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	92.4	6.5
10°-20°	242.1	17.0
20°-30°	314.0	22.1
30°-40°	302.3	21.3
40°-50°	224.9	15.8
50°-60°	138.3	9.7
60°-70°	67.9	4.8
70°-80°	26.5	1.9
80°-90°	12.1	0.9
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°	648.5	45.7
0°-40°	950.8	66.9
0°-60°	1313.9	92.5
0°-90°	1420.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1420.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1004	1004	1004	1004	1004	
5°	969	983	981	990	999	90
15°	801	826	857	908	938	224
25°	584	616	670	755	816	267
35°	354	388	462	578	666	221
45°	135	167	262	405	515	112
55°	66	68	104	238	338	60
65°	31	34	56	90	145	32
75°	15	26	27	25	24	16
85°	7	12	14	14	9	7
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1003.6	1003.6	1003.6	1003.6	1003.6
2.5°	993.5	1004.7	995.7	996.8	998.0
5°	968.8	983.4	981.1	990.1	999.1
7.5°	935.2	952.0	959.8	977.8	990.1
10°	894.8	913.9	929.6	958.7	975.5
12.5°	849.9	872.4	894.8	934.0	959.8
15°	800.6	826.4	856.7	908.3	938.5
17.5°	750.2	775.9	815.2	874.6	912.7
20°	696.3	724.4	769.2	835.4	882.5
22.5°	640.3	670.5	719.9	795.0	851.1
25°	584.2	615.6	670.5	754.6	816.3
27.5°	528.1	558.4	617.8	712.0	779.3
30°	470.9	502.3	567.4	666.1	743.4
32.5°	416.0	445.2	514.7	622.3	704.2
35°	354.3	388.0	462.0	577.5	666.1
37.5°	301.6	331.9	411.5	532.6	627.9
40°	241.1	274.7	359.9	488.9	588.7
42.5°	185.0	218.7	310.6	445.2	551.7
45°	134.6	167.1	262.4	404.8	514.7
47.5°	102.0	121.1	215.3	365.5	473.2
50°	87.5	93.1	172.7	322.9	428.3
52.5°	77.4	79.6	134.6	280.3	383.5
55°	66.2	68.4	104.3	237.7	337.5
57.5°	56.1	57.2	84.1	197.3	288.2
60°	47.1	48.2	74.0	158.1	237.7
62.5°	39.2	40.4	66.2	122.2	189.5
65°	31.4	33.6	56.1	89.7	144.6
67.5°	25.8	30.3	47.1	62.8	100.9
70°	21.3	29.2	38.1	43.7	61.7
72.5°	17.9	26.9	32.5	31.4	30.3
75°	14.6	25.8	26.9	24.7	23.5
77.5°	12.3	22.4	22.4	20.2	19.1
80°	10.1	17.9	17.9	17.9	15.7
82.5°	9.0	14.6	15.7	15.7	12.3
85°	6.7	12.3	13.5	13.5	9.0
87.5°	4.5	11.2	12.3	11.2	6.7
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	7.28	8.62	7.64	8.93	9.25	16.44	17.79	16.81	18.10	18.41
	3H	8.39	9.58	8.77	9.91	10.28	16.95	18.14	17.33	18.47	18.84
	4H	8.91	10.02	9.31	10.37	10.75	16.97	18.08	17.37	18.43	18.81
	6H	9.34	10.36	9.76	10.73	11.12	16.98	18.00	17.40	18.37	18.77
	8H	9.53	10.50	9.96	10.89	11.29	16.99	17.95	17.42	18.34	18.75
	12H	9.71	10.64	10.15	11.02	11.45	16.99	17.91	17.42	18.30	18.73
4H	2H	8.43	9.54	8.83	9.89	10.27	16.34	17.45	16.74	17.80	18.18
	3H	9.77	10.68	10.18	11.08	11.48	16.93	17.84	17.34	18.24	18.64
	4H	10.50	11.31	10.93	11.73	12.17	16.98	17.80	17.42	18.22	18.66
	6H	11.11	11.81	11.57	12.26	12.72	17.06	17.76	17.52	18.21	18.67
	8H	11.35	12.01	11.82	12.45	12.92	17.09	17.75	17.56	18.19	18.66
	12H	11.59	12.17	12.07	12.65	13.12	17.13	17.71	17.62	18.19	18.67
8H	4H	10.97	11.62	11.44	12.07	12.54	16.94	17.60	17.41	18.05	18.52
	6H	11.81	12.35	12.31	12.85	13.33	17.07	17.61	17.57	18.10	18.58
	8H	12.22	12.70	12.74	13.22	13.71	17.15	17.64	17.67	18.15	18.64
	12H	12.64	13.07	13.16	13.56	14.13	17.27	17.70	17.79	18.20	18.77
12H	4H	11.02	11.60	11.51	12.08	12.56	16.92	17.50	17.40	17.98	18.45
	6H	11.94	12.43	12.47	12.94	13.43	17.05	17.54	17.57	18.05	18.54
	8H	12.47	12.90	12.98	13.39	13.96	17.18	17.61	17.70	18.11	18.68