

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: P1060287

Luminaire Tested: S124RDRP-S1020D940-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060287  
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-S1020D940-X4F0-XX-UDD-SVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

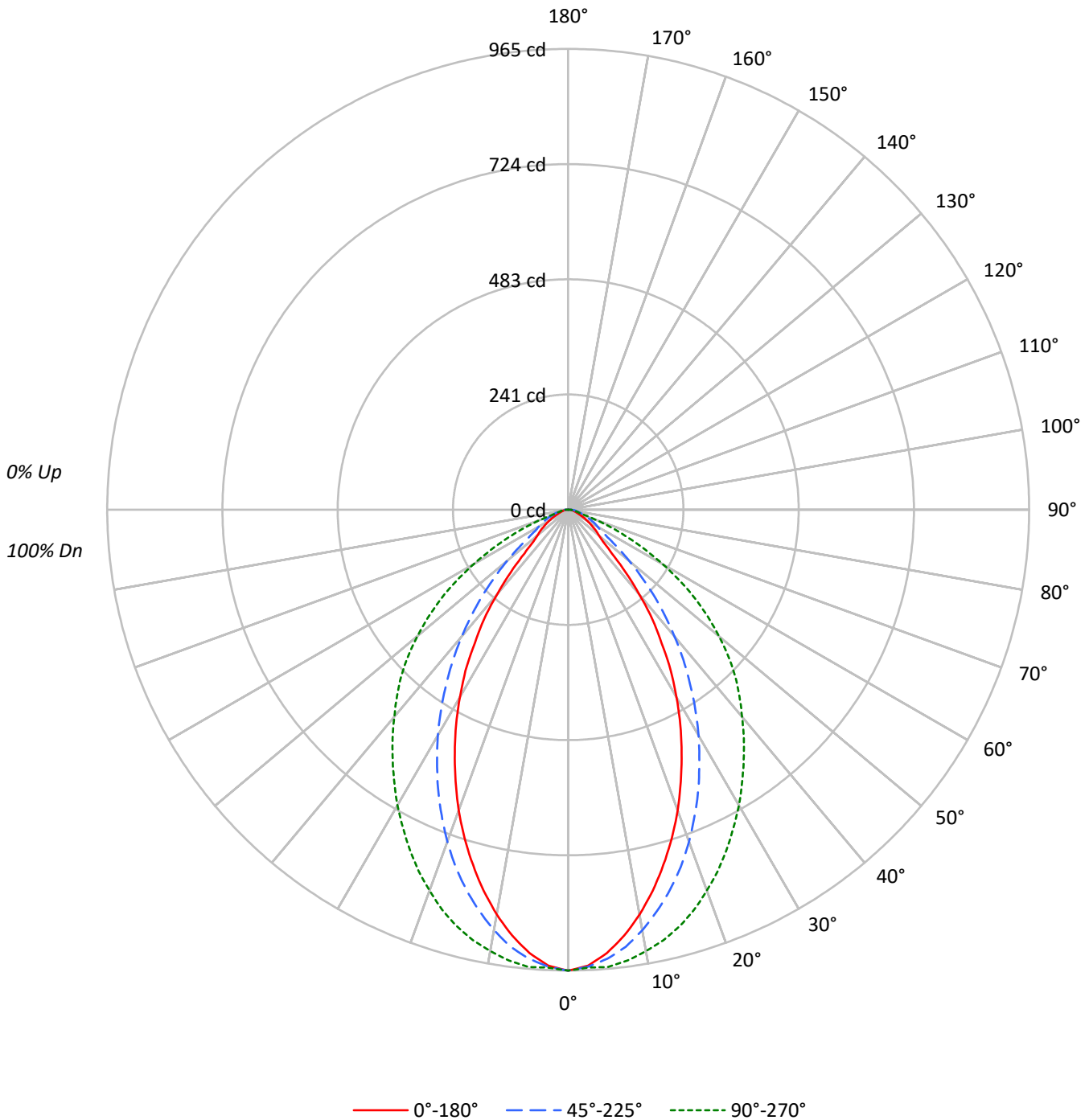
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1366.2 lumens  
Efficiency: N/A  
Efficacy: 39.0 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): 35  
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																		
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	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89																												
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79																												
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70																												
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63																												
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57																												
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51																												
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47																												
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43																												
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39																												
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36																												

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

	0°	45°	90°
0°	8311	8311	8311
5°	8055	8157	8306
10°	7525	7818	8204
15°	6864	7346	8047
20°	6137	6779	7778
25°	5339	6127	7459
30°	4504	5426	7109
35°	3583	4671	6734
40°	2607	3892	6365
45°	1576	3074	6028
50°	1127	2225	5519
55°	955	1506	4873
60°	780	1226	3937
65°	615	1098	2834
70°	516	924	1493
75°	466	862	752
80°	481	858	749
85°	642	1275	850

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6028 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	88.9	6.5
10°-20°	232.9	17.0
20°-30°	302.0	22.1
30°-40°	290.7	21.3
40°-50°	216.3	15.8
50°-60°	133.0	9.7
60°-70°	65.3	4.8
70°-80°	25.5	1.9
80°-90°	11.6	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°	623.7	45.7
0°-40°	914.5	66.9
0°-60°	1263.7	92.5
0°-90°	1366.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1366.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	965	965	965	965	965	
5°	932	946	944	952	961	87
15°	770	795	824	874	903	215
25°	562	592	645	726	785	257
35°	341	373	444	555	641	213
45°	129	161	252	389	495	107
55°	64	66	100	229	325	57
65°	30	32	54	86	139	31
75°	14	25	26	24	23	15
85°	6	12	13	13	9	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	965.2	965.2	965.2	965.2	965.2
2.5°	955.5	966.3	957.7	958.8	959.9
5°	931.8	945.8	943.7	952.3	960.9
7.5°	899.5	915.6	923.2	940.4	952.3
10°	860.6	879.0	894.1	922.1	938.3
12.5°	817.5	839.1	860.6	898.4	923.2
15°	770.0	794.8	824.0	873.6	902.7
17.5°	721.5	746.3	784.1	841.2	877.9
20°	669.7	696.7	739.8	803.5	848.8
22.5°	615.8	644.9	692.4	764.6	818.6
25°	561.9	592.1	644.9	725.8	785.1
27.5°	508.0	537.1	594.2	684.8	749.5
30°	453.0	483.2	545.7	640.6	715.0
32.5°	400.1	428.2	495.0	598.6	677.3
35°	340.8	373.2	444.3	555.4	640.6
37.5°	290.1	319.2	395.8	512.3	604.0
40°	231.9	264.2	346.2	470.2	566.2
42.5°	178.0	210.3	298.7	428.2	530.6
45°	129.4	160.7	252.4	389.3	495.0
47.5°	98.1	116.5	207.1	351.6	455.1
50°	84.1	89.5	166.1	310.6	412.0
52.5°	74.4	76.6	129.4	269.6	368.8
55°	63.6	65.8	100.3	228.6	324.6
57.5°	53.9	55.0	80.9	189.8	277.2
60°	45.3	46.4	71.2	152.1	228.6
62.5°	37.7	38.8	63.6	117.6	182.3
65°	30.2	32.4	53.9	86.3	139.1
67.5°	24.8	29.1	45.3	60.4	97.1
70°	20.5	28.0	36.7	42.1	59.3
72.5°	17.3	25.9	31.3	30.2	29.1
75°	14.0	24.8	25.9	23.7	22.6
77.5°	11.9	21.6	21.6	19.4	18.3
80°	9.7	17.3	17.3	17.3	15.1
82.5°	8.6	14.0	15.1	15.1	11.9
85°	6.5	11.9	12.9	12.9	8.6
87.5°	4.3	10.8	11.9	10.8	6.5
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	7.14	8.48	7.51	8.80	9.11	16.31	17.65	16.68	17.96	18.28
	3H	8.25	9.44	8.63	9.77	10.14	16.82	18.01	17.20	18.34	18.70
	4H	8.77	9.88	9.17	10.23	10.61	16.84	17.95	17.24	18.30	18.68
	6H	9.21	10.23	9.62	10.60	10.99	16.85	17.87	17.26	18.24	18.63
	8H	9.39	10.36	9.82	10.75	11.16	16.85	17.82	17.28	18.21	18.61
	12H	9.58	10.50	10.01	10.88	11.31	16.85	17.78	17.29	18.16	18.59
4H	2H	8.29	9.40	8.69	9.75	10.13	16.20	17.31	16.60	17.66	18.05
	3H	9.63	10.54	10.04	10.94	11.34	16.79	17.70	17.20	18.10	18.51
	4H	10.36	11.17	10.80	11.59	12.04	16.85	17.66	17.28	18.08	18.53
	6H	10.97	11.68	11.44	12.12	12.59	16.93	17.63	17.39	18.07	18.54
	8H	11.21	11.87	11.68	12.32	12.79	16.96	17.61	17.42	18.06	18.53
	12H	11.45	12.03	11.94	12.51	12.99	17.00	17.58	17.48	18.06	18.53
8H	4H	10.83	11.49	11.30	11.93	12.40	16.81	17.46	17.28	17.91	18.38
	6H	11.68	12.22	12.18	12.72	13.20	16.94	17.47	17.44	17.97	18.45
	8H	12.09	12.57	12.61	13.09	13.58	17.02	17.50	17.54	18.02	18.51
	12H	12.51	12.94	13.03	13.43	14.00	17.14	17.57	17.65	18.06	18.63
12H	4H	10.88	11.46	11.37	11.95	12.42	16.78	17.36	17.27	17.84	18.32
	6H	11.81	12.30	12.33	12.81	13.30	16.92	17.40	17.44	17.92	18.41
	8H	12.34	12.76	12.85	13.26	13.83	17.05	17.48	17.57	17.97	18.54