

Scaled data based on original data using  
LM-79-2019 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: S124RDR-S1020D940-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
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: S124RDR-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: -

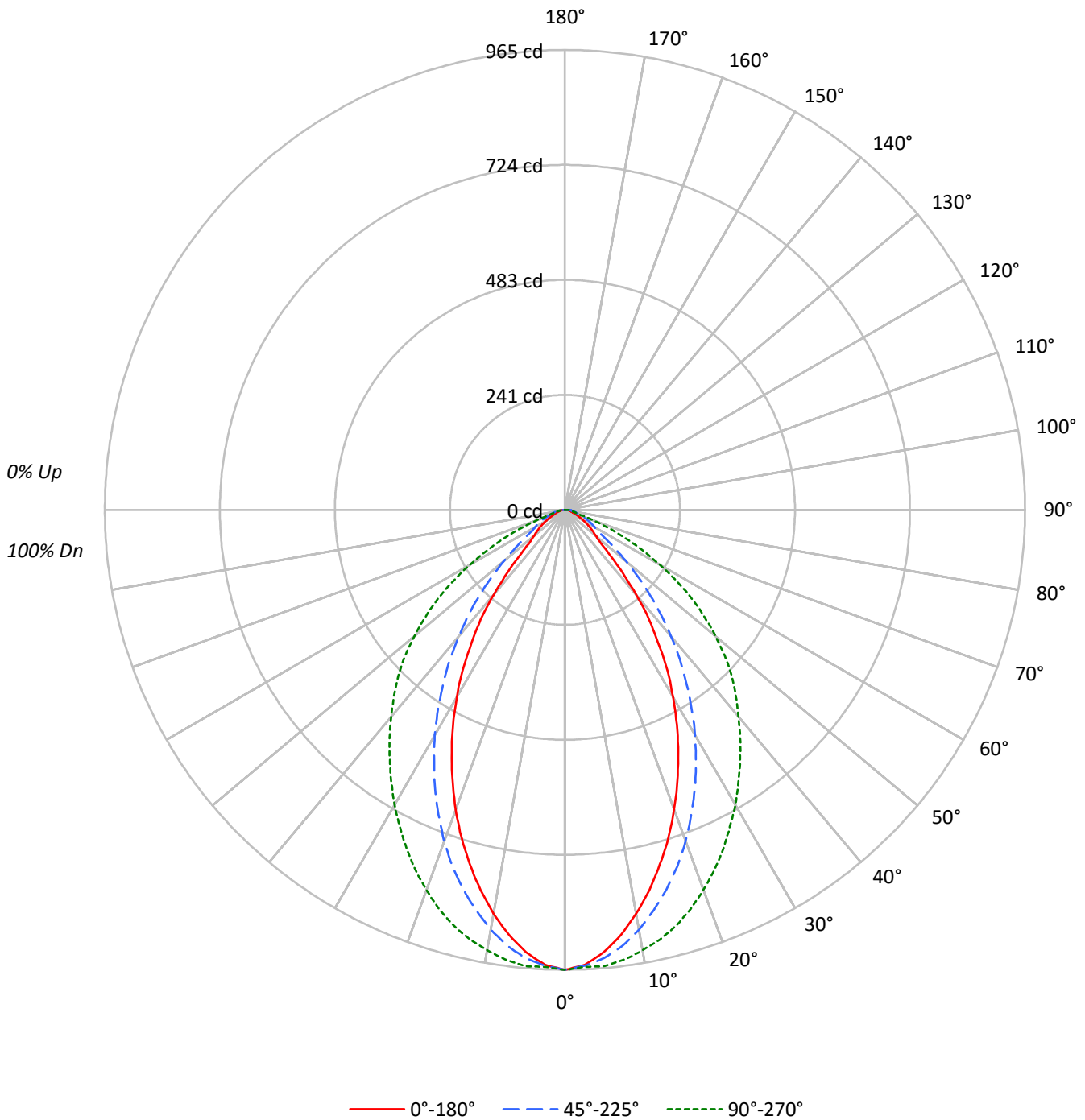
**Summary**

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 (Ain): 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

(END OF REPORT)