

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: P1060283

Luminaire Tested: S124RDR-S1020D940-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060283  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-78)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-S1020D940-X4F0-XX-UDD-BVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

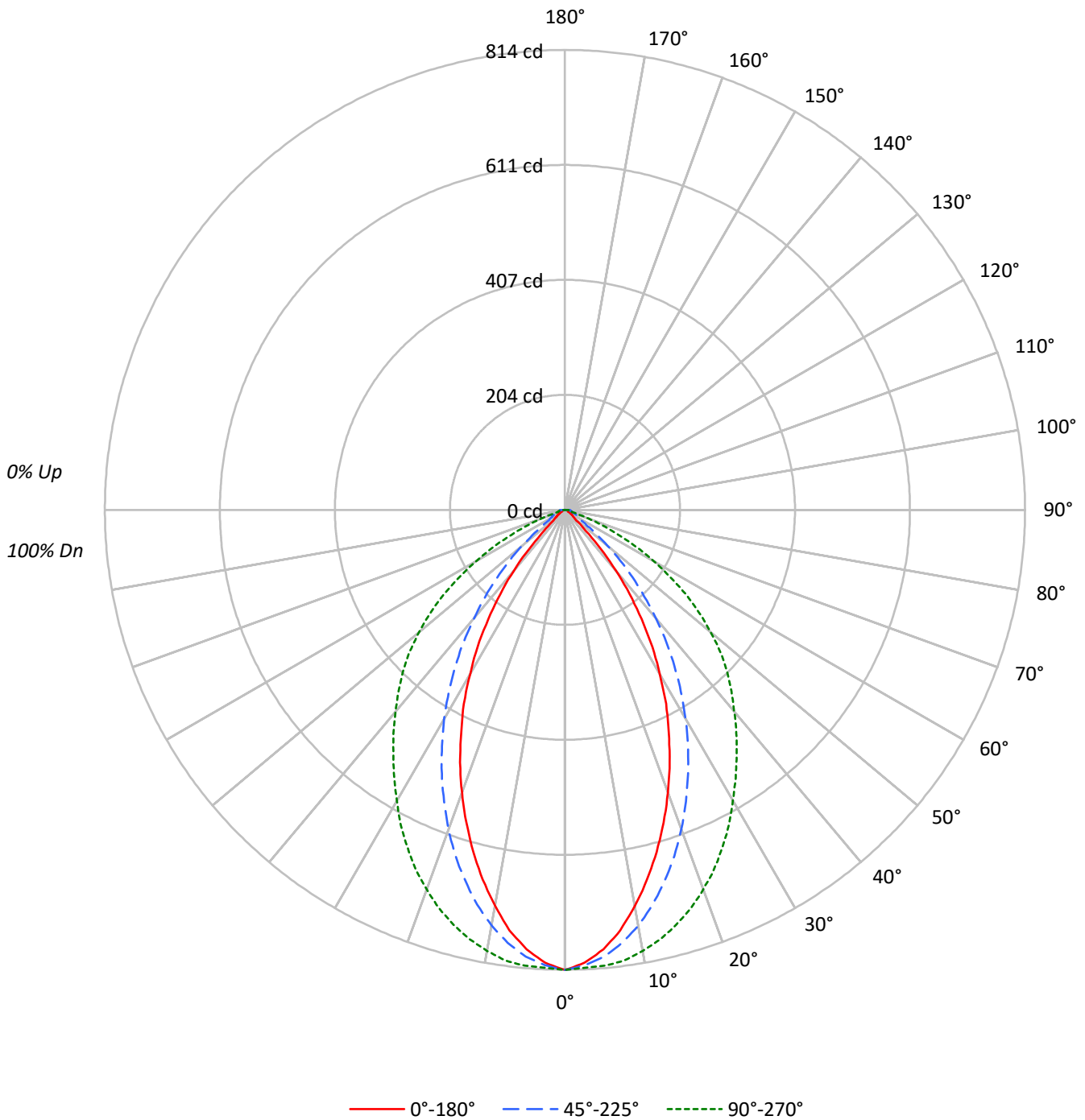
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1021.9 lumens  
Efficiency: N/A  
Efficacy: 29.2 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97  
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					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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
1	112	108	105	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90				
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81				
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73				
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65				
5	86	76	68	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59				
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54				
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	50				
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46				
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42				
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39				

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

	0°	45°	90°
0°	7012	7012	7012
5°	6749	6862	7002
10°	6224	6535	6931
15°	5586	6067	6778
20°	4882	5515	6553
25°	4129	4898	6261
30°	3335	4247	5909
35°	2483	3549	5566
40°	1576	2813	5237
45°	631	2062	4938
50°	275	1314	4508
55°	210	680	3935
60°	148	465	3121
65°	110	460	2131
70°	108	408	977
75°	143	429	396
80°	213	481	426
85°	425	850	642

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4938 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.5	7.3
10°-20°	192.3	18.8
20°-30°	242.8	23.8
30°-40°	223.0	21.8
40°-50°	152.1	14.9
50°-60°	82.5	8.1
60°-70°	35.0	3.4
70°-80°	12.1	1.2
80°-90°	7.7	0.7
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°	509.6	49.9
0°-40°	732.6	71.7
0°-60°	967.2	94.6
0°-90°	1021.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1021.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	814	814	814	814	814	
5°	781	793	794	800	810	72
15°	627	647	680	729	760	175
25°	435	463	516	595	659	199
35°	236	268	338	443	530	147
45°	52	83	169	300	406	48
55°	14	15	45	165	262	13
65°	5	6	23	52	105	6
75°	4	12	13	12	12	5
85°	4	9	9	9	6	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	814.3	814.3	814.3	814.3	814.3
2.5°	802.4	812.1	806.7	808.9	811.0
5°	780.8	792.7	793.8	800.3	810.0
7.5°	750.6	764.7	773.3	789.5	804.6
10°	711.8	729.1	747.4	773.3	792.7
12.5°	670.8	689.2	716.1	752.8	778.7
15°	626.6	647.1	680.5	729.1	760.3
17.5°	580.2	602.9	642.8	700.0	739.9
20°	532.8	557.6	601.8	666.5	715.1
22.5°	484.3	510.1	558.7	632.0	689.2
25°	434.6	462.7	515.5	595.3	659.0
27.5°	387.2	413.1	471.3	558.7	628.8
30°	335.4	364.5	427.1	520.9	594.3
32.5°	288.0	316.0	381.8	482.1	561.9
35°	236.2	267.5	337.6	443.3	529.5
37.5°	187.7	217.9	294.4	406.6	498.3
40°	140.2	171.5	250.2	369.9	465.9
42.5°	93.8	127.3	208.2	332.2	435.7
45°	51.8	83.0	169.3	299.8	405.5
47.5°	27.0	45.3	132.7	267.5	373.2
50°	20.5	24.8	98.1	231.9	336.5
52.5°	17.3	18.3	66.9	196.3	299.8
55°	14.0	15.1	45.3	165.0	262.1
57.5°	10.8	11.9	32.4	134.8	220.0
60°	8.6	9.7	27.0	103.5	181.2
62.5°	6.5	7.5	25.9	76.6	142.4
65°	5.4	6.5	22.6	51.8	104.6
67.5°	4.3	6.5	19.4	33.4	70.1
70°	4.3	8.6	16.2	21.6	38.8
72.5°	4.3	9.7	14.0	14.0	14.0
75°	4.3	11.9	12.9	11.9	11.9
77.5°	4.3	10.8	10.8	10.8	10.8
80°	4.3	9.7	9.7	9.7	8.6
82.5°	4.3	8.6	9.7	9.7	7.5
85°	4.3	8.6	8.6	8.6	6.5
87.5°	3.2	8.6	8.6	8.6	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)