

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: P1060226

Luminaire Tested: S124RDR-S1020D830-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060226  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-S1020D830-X4F0-XX-UDD-WVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

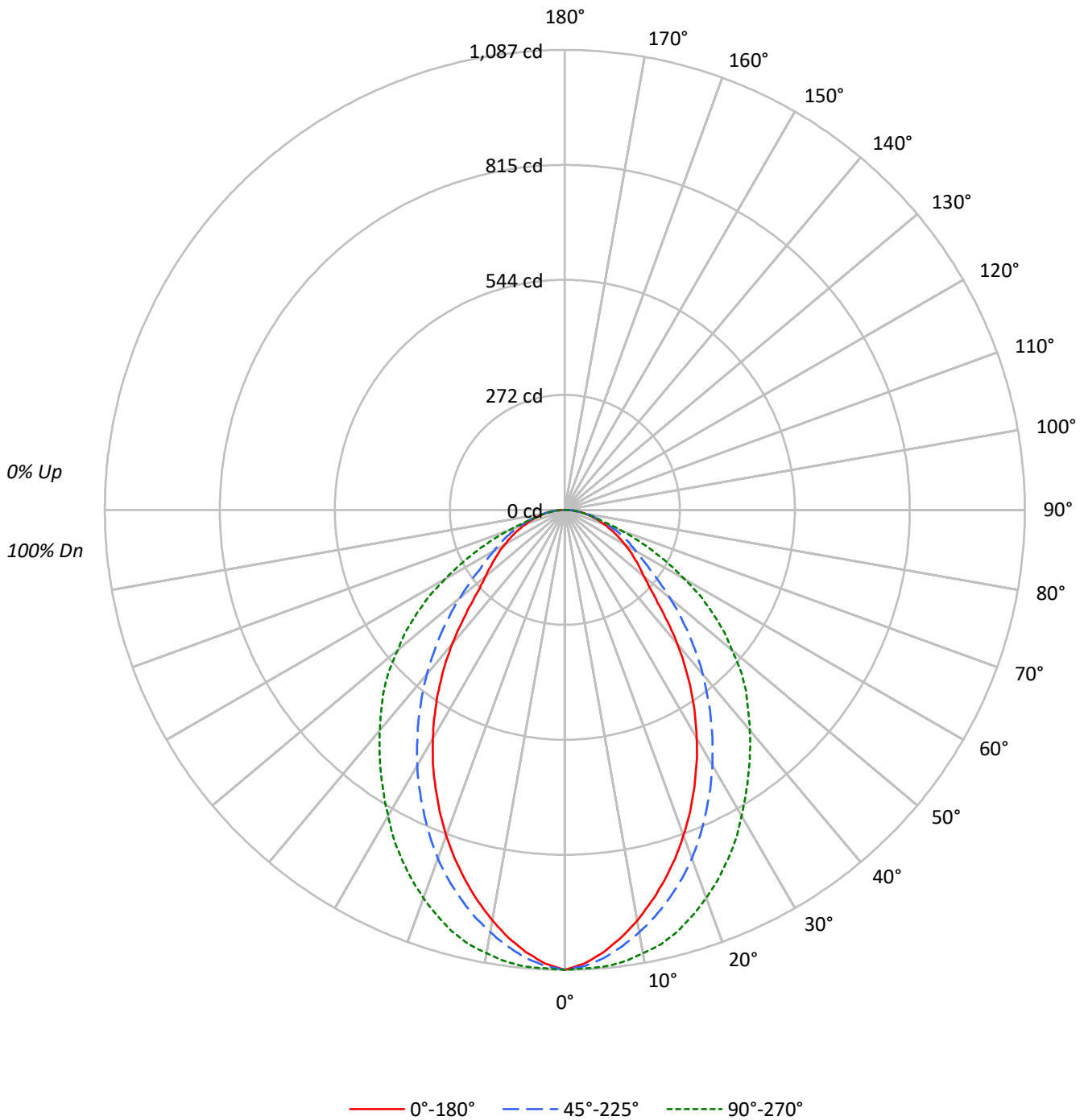
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1978.9 lumens  
Efficiency: N/A  
Efficacy: 56.5 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1  
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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57				
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50				
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45				
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41				
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31				

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

	0°	45°	90°
0°	9360	9360	9360
5°	9071	9189	9366
10°	8618	8866	9305
15°	8085	8482	9192
20°	7507	8039	8948
25°	6874	7491	8660
30°	6197	6933	8305
35°	5462	6324	7965
40°	4649	5699	7646
45°	3774	5037	7368
50°	3266	4335	6899
55°	3028	3678	6397
60°	2826	3317	5613
65°	2647	3111	4666
70°	2467	2868	3527
75°	2349	2655	2539
80°	2202	2430	2147
85°	2025	2253	1690

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7368 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.4	5.1
10°-20°	269.7	13.6
20°-30°	368.3	18.6
30°-40°	385.9	19.5
40°-50°	334.0	16.9
50°-60°	251.0	12.7
60°-70°	161.8	8.2
70°-80°	83.0	4.2
80°-90°	24.8	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°	738.4	37.3
0°-40°	1124.3	56.8
0°-60°	1709.3	86.4
0°-90°	1978.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1978.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1087	1087	1087	1087	1087	
5°	1049	1065	1063	1071	1084	98
15°	907	930	951	995	1031	254
25°	724	751	788	850	912	332
35°	520	549	602	681	758	324
45°	310	342	414	515	605	244
55°	202	208	245	350	426	181
65°	130	132	153	185	229	129
75°	71	79	80	79	76	75
85°	20	24	23	22	17	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1087.0	1087.0	1087.0	1087.0	1087.0
2.5°	1073.3	1087.0	1079.0	1081.3	1084.7
5°	1049.4	1065.3	1063.0	1071.0	1083.5
7.5°	1019.7	1036.8	1040.3	1058.5	1076.7
10°	985.6	1004.9	1014.0	1041.4	1064.2
12.5°	948.0	968.5	984.4	1018.6	1051.6
15°	906.9	929.7	951.4	994.7	1031.1
17.5°	864.8	887.6	916.1	963.9	1004.9
20°	819.2	844.3	877.3	927.5	976.4
22.5°	772.5	798.7	834.0	888.7	945.7
25°	723.5	750.8	788.4	850.0	911.5
27.5°	674.5	701.9	744.0	809.0	876.2
30°	623.2	651.7	697.3	767.9	835.2
32.5°	572.0	602.7	649.4	724.6	796.4
35°	519.6	549.2	601.6	681.3	757.7
37.5°	467.1	497.9	553.7	639.2	718.9
40°	413.6	445.5	507.0	597.0	680.2
42.5°	360.0	394.2	459.2	553.7	641.5
45°	309.9	341.8	413.6	515.0	605.0
47.5°	272.3	294.0	368.0	477.4	564.0
50°	243.8	255.2	323.6	436.4	515.0
52.5°	222.2	230.2	282.6	391.9	475.1
55°	201.7	208.5	245.0	349.8	426.1
57.5°	183.4	186.9	216.5	308.8	379.4
60°	164.1	167.5	192.6	264.3	325.9
62.5°	147.0	149.3	173.2	222.2	276.9
65°	129.9	132.2	152.7	184.6	229.0
67.5°	113.9	117.4	133.3	150.4	182.3
70°	98.0	104.8	113.9	121.9	140.1
72.5°	84.3	91.2	95.7	98.0	99.1
75°	70.6	78.6	79.8	78.6	76.3
77.5°	57.0	63.8	63.8	61.5	59.2
80°	44.4	50.1	49.0	46.7	43.3
82.5°	33.0	36.5	35.3	33.0	29.6
85°	20.5	23.9	22.8	21.6	17.1
87.5°	10.3	13.7	12.5	11.4	6.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)