

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: P1060416

Luminaire Tested: S124RDR-S350D850-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060416  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-S350D850-X4F0-XX-UDD-WVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

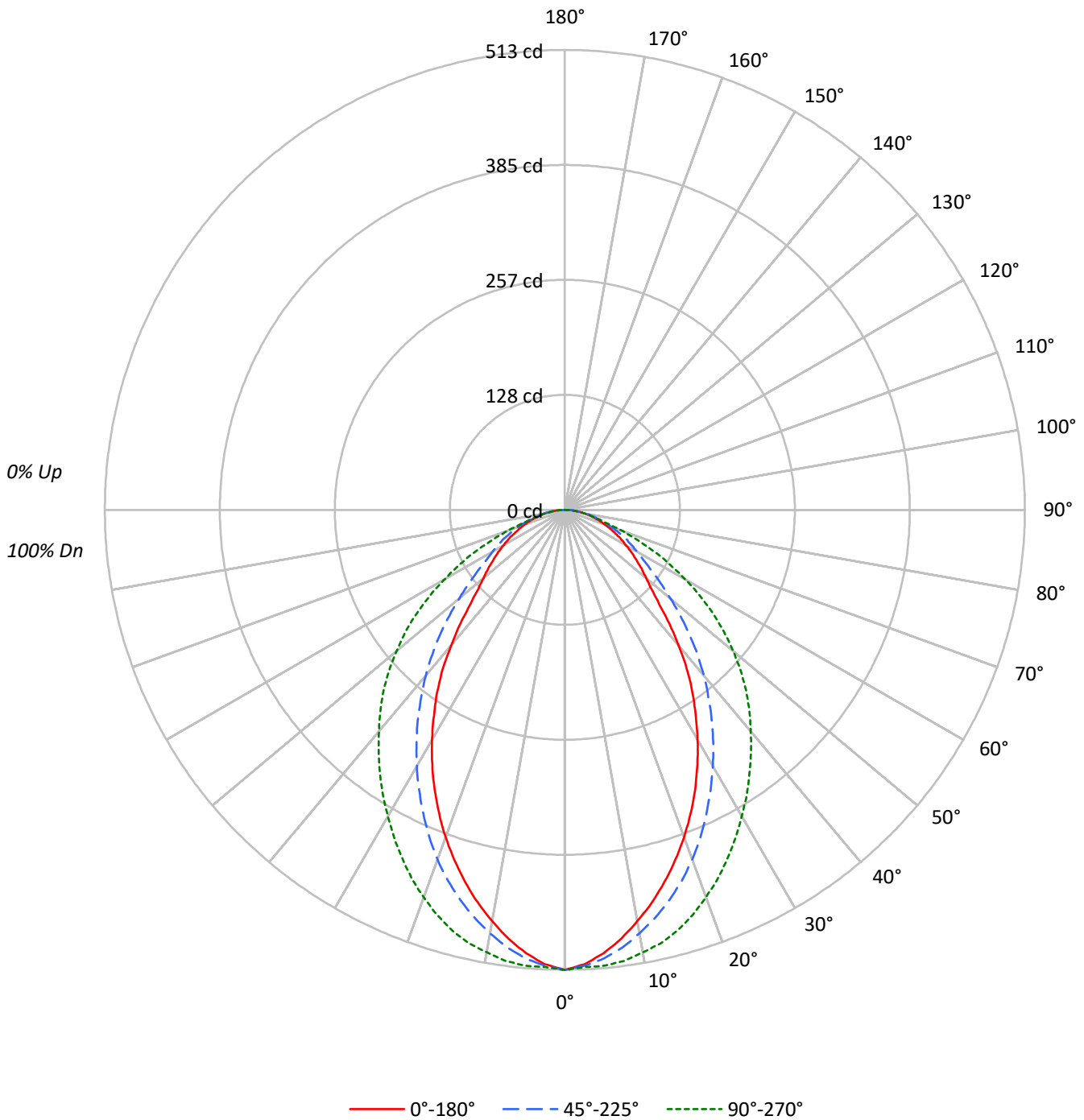
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 941.6 lumens  
Efficiency: N/A  
Efficacy: 75.3 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 12.5  
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	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	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75																				
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65																				
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57																				
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50																				
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45																				
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40																				
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37																				
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33																				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31																				

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

	0°	45°	90°
0°	4419	4419	4419
5°	4291	4342	4412
10°	4074	4194	4384
15°	3830	4016	4332
20°	3562	3804	4215
25°	3267	3551	4077
30°	2944	3282	3924
35°	2607	3002	3776
40°	2216	2710	3624
45°	1815	2394	3484
50°	1587	2056	3279
55°	1459	1773	3034
60°	1354	1595	2675
65°	1267	1500	2239
70°	1188	1372	1682
75°	1118	1254	1224
80°	1036	1150	1036
85°	939	1126	899

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3484 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.4	5.0
10°-20°	127.6	13.6
20°-30°	174.4	18.5
30°-40°	183.3	19.5
40°-50°	159.1	16.9
50°-60°	120.0	12.7
60°-70°	77.8	8.3
70°-80°	39.9	4.2
80°-90°	12.1	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°	349.4	37.1
0°-40°	532.7	56.6
0°-60°	811.8	86.2
0°-90°	941.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	941.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	513	513	513	513	513	
5°	496	503	502	506	510	46
15°	430	440	450	471	486	120
25°	344	356	374	402	429	158
35°	248	262	286	324	359	154
45°	149	163	197	246	286	117
55°	97	100	118	168	202	87
65°	62	64	74	89	110	62
75°	34	38	38	38	37	36
85°	10	12	11	11	9	11
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	513.2	513.2	513.2	513.2	513.2
2.5°	507.3	513.6	509.1	510.0	510.4
5°	496.4	503.2	502.3	506.3	510.4
7.5°	482.3	490.5	492.3	500.4	507.3
10°	465.9	475.0	479.6	492.7	501.4
12.5°	448.7	457.8	465.9	482.7	495.0
15°	429.6	440.0	450.5	470.9	485.9
17.5°	409.6	420.5	433.7	455.9	473.7
20°	388.7	399.6	415.1	439.1	460.0
22.5°	366.5	378.7	395.1	421.0	445.5
25°	343.8	356.0	373.7	402.4	429.1
27.5°	320.2	332.9	351.9	383.7	412.3
30°	296.1	309.7	330.1	363.8	394.6
32.5°	271.6	286.1	307.9	343.8	377.4
35°	248.0	261.6	285.6	323.8	359.2
37.5°	223.4	237.1	262.9	304.3	341.0
40°	197.1	212.1	241.1	283.8	322.4
42.5°	172.6	187.6	218.9	264.3	304.7
45°	149.0	163.0	196.6	245.7	286.1
47.5°	130.8	140.8	174.4	227.5	266.1
50°	118.5	123.1	153.5	207.5	244.8
52.5°	107.6	111.3	134.4	187.6	223.9
55°	97.2	99.9	118.1	167.6	202.1
57.5°	88.1	89.5	103.5	147.6	178.5
60°	78.6	80.4	92.6	127.2	155.3
62.5°	70.8	71.8	83.1	107.6	132.2
65°	62.2	63.6	73.6	89.0	109.9
67.5°	54.5	56.8	63.6	72.7	86.7
70°	47.2	50.4	54.5	59.0	66.8
72.5°	40.4	44.1	46.3	48.1	46.8
75°	33.6	37.7	37.7	38.1	36.8
77.5°	27.2	30.9	30.4	30.0	28.2
80°	20.9	24.1	23.2	22.7	20.9
82.5°	15.4	17.7	16.8	16.3	14.1
85°	9.5	11.8	11.4	10.9	9.1
87.5°	4.5	6.8	6.4	5.9	4.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)