

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: P1060459

Luminaire Tested: S124RDR-S350D950-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060459  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-37)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-S350D950-X4F0-XX-UDD-WVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

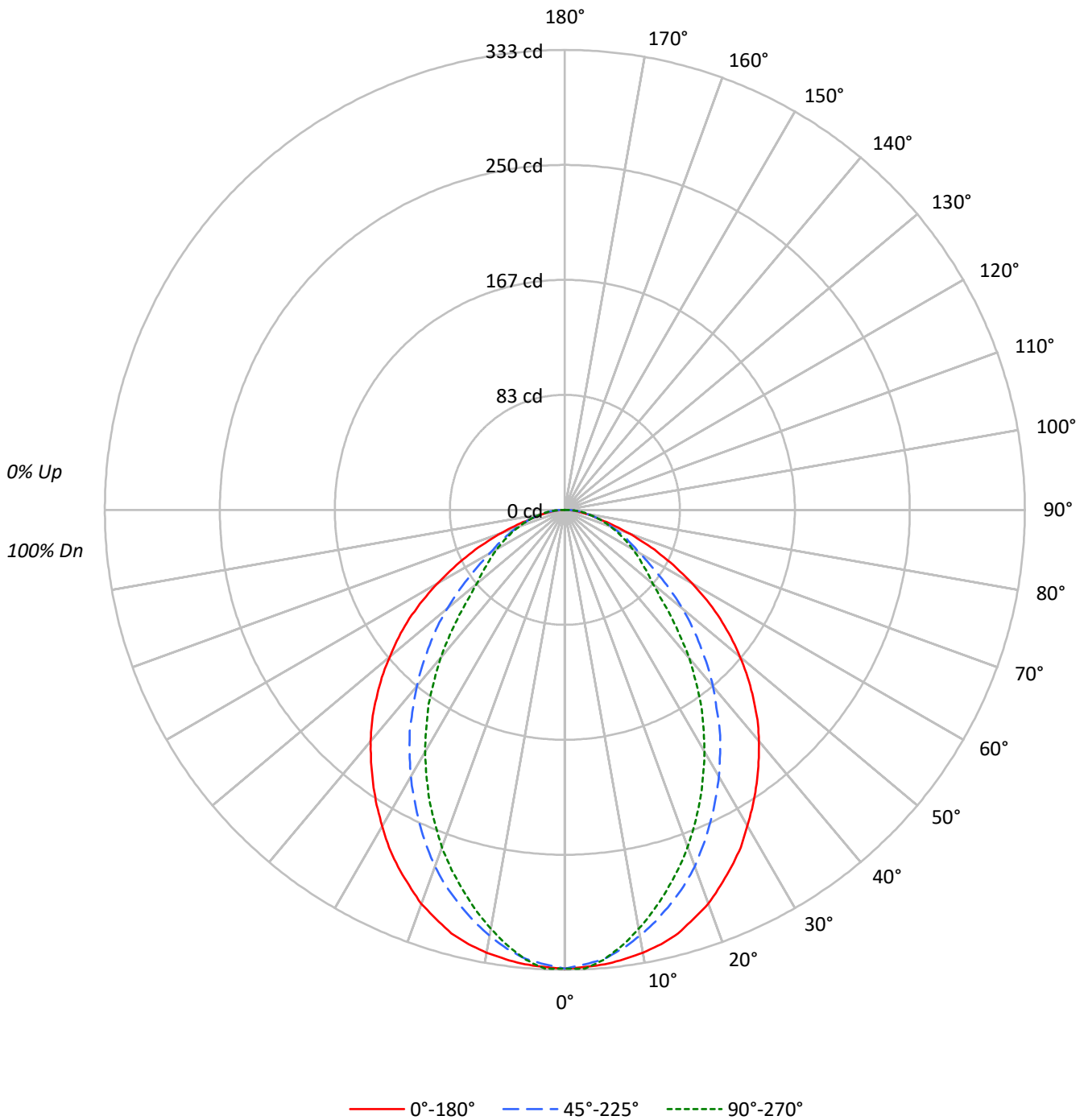
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 640.6 lumens  
Efficiency: N/A  
Efficacy: 51.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12  
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					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	107	104	100	97	99	97	94	96	93	91	92	90	88	86				
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76	74				
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64				
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56				
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50				
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44				
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40				
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36				
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33				
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30				

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

	0°	45°	90°
0°	2861	2861	2861
5°	2855	2821	2825
10°	2847	2738	2693
15°	2830	2634	2541
20°	2783	2518	2383
25°	2712	2371	2203
30°	2628	2216	2011
35°	2544	2056	1806
40°	2457	1874	1575
45°	2349	1683	1316
50°	2217	1486	1115
55°	2063	1260	1031
60°	1829	1070	975
65°	1559	986	923
70°	1219	914	874
75°	832	845	845
80°	714	793	813
85°	613	771	850

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2349 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.9	4.8
10°-20°	83.9	13.1
20°-30°	116.5	18.2
30°-40°	124.9	19.5
40°-50°	110.7	17.3
50°-60°	83.4	13.0
60°-70°	54.0	8.4
70°-80°	27.7	4.3
80°-90°	8.5	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°	231.4	36.1
0°-40°	356.3	55.6
0°-60°	550.4	85.9
0°-90°	640.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	640.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	332	332	332	332	332	
5°	330	331	326	327	327	31
15°	317	310	296	288	285	89
25°	285	270	250	236	232	131
35°	242	220	196	178	172	151
45°	193	168	138	117	108	149
55°	137	114	84	71	69	122
65°	76	62	48	46	45	76
75°	25	26	25	25	25	30
85°	6	7	8	9	9	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	332.2	332.2	332.2	332.2	332.2
2.5°	331.4	332.6	329.5	331.8	332.6
5°	330.3	330.7	326.4	326.8	326.8
7.5°	328.3	327.5	320.5	318.6	318.2
10°	325.6	323.2	313.1	309.2	308.0
12.5°	322.1	317.8	304.9	299.4	297.1
15°	317.4	310.4	295.5	288.1	285.0
17.5°	310.4	301.4	285.8	276.4	272.9
20°	303.7	291.6	274.8	263.1	260.0
22.5°	294.4	281.5	262.3	249.8	245.9
25°	285.4	270.1	249.5	236.2	231.9
27.5°	275.6	258.4	236.2	222.1	216.7
30°	264.3	245.9	222.9	208.1	202.2
32.5°	253.4	233.8	209.2	192.9	186.6
35°	242.0	220.2	195.6	178.0	171.8
37.5°	230.3	207.3	180.4	163.2	155.0
40°	218.6	194.4	166.7	147.2	140.1
42.5°	206.5	181.1	152.6	132.3	123.4
45°	192.9	167.9	138.2	116.7	108.1
47.5°	179.6	155.0	124.9	101.5	93.7
50°	165.5	141.3	110.9	88.2	83.2
52.5°	151.5	127.3	97.2	78.1	75.7
55°	137.4	114.4	83.9	70.7	68.7
57.5°	121.8	101.1	72.2	64.0	62.5
60°	106.2	86.7	62.1	57.8	56.6
62.5°	91.0	74.2	55.0	51.5	50.8
65°	76.5	61.7	48.4	45.7	45.3
67.5°	62.5	50.8	42.2	40.6	39.8
70°	48.4	40.6	36.3	35.5	34.7
72.5°	35.9	32.8	30.8	30.5	30.1
75°	25.0	26.2	25.4	25.4	25.4
77.5°	19.9	20.3	20.7	21.1	20.7
80°	14.4	15.6	16.0	16.8	16.4
82.5°	10.2	10.9	12.1	12.5	12.9
85°	6.2	6.6	7.8	8.6	8.6
87.5°	2.7	3.1	3.9	4.7	5.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)