

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: P1060450

Luminaire Tested: S124RDR-S350D940-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

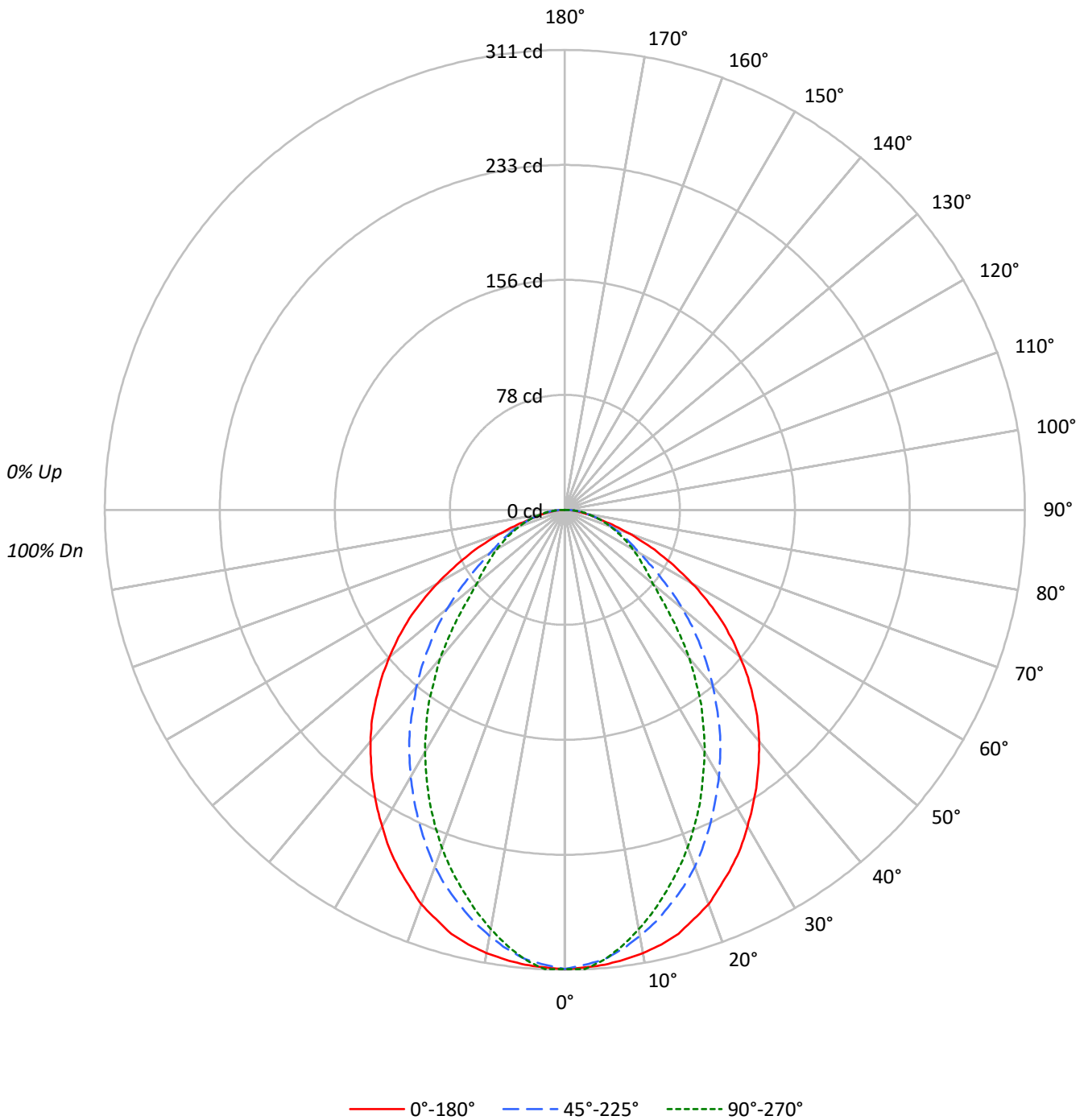
Test Method: LM-79-2019  
Report Number: P1060450  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-37)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-S350D940-X4F0-XX-UDD-WVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 598.8 lumens  
Efficiency: N/A  
Efficacy: 47.9 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	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°	2674	2674	2674
5°	2668	2637	2640
10°	2661	2558	2517
15°	2645	2462	2375
20°	2602	2354	2227
25°	2534	2216	2059
30°	2456	2072	1879
35°	2378	1922	1688
40°	2297	1751	1473
45°	2196	1573	1231
50°	2072	1388	1041
55°	1928	1179	964
60°	1710	999	911
65°	1457	921	862
70°	1138	854	818
75°	779	789	789
80°	669	744	759
85°	573	721	790

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2196 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.9	4.8
10°-20°	78.5	13.1
20°-30°	108.9	18.2
30°-40°	116.8	19.5
40°-50°	103.4	17.3
50°-60°	78.0	13.0
60°-70°	50.5	8.4
70°-80°	25.9	4.3
80°-90°	7.9	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°	216.3	36.1
0°-40°	333.0	55.6
0°-60°	514.4	85.9
0°-90°	598.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	598.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	310	310	310	310	310	
5°	309	309	305	305	305	29
15°	297	290	276	269	266	83
25°	267	252	233	221	217	123
35°	226	206	183	166	161	141
45°	180	157	129	109	101	139
55°	128	107	78	66	64	114
65°	72	58	45	43	42	71
75°	23	24	24	24	24	28
85°	6	6	7	8	8	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	310.5	310.5	310.5	310.5	310.5
2.5°	309.8	310.9	308.0	310.2	310.9
5°	308.7	309.1	305.1	305.4	305.4
7.5°	306.9	306.1	299.6	297.8	297.4
10°	304.3	302.1	292.6	289.0	287.9
12.5°	301.0	297.0	285.0	279.9	277.7
15°	296.7	290.1	276.2	269.3	266.4
17.5°	290.1	281.7	267.1	258.3	255.1
20°	283.9	272.6	256.9	245.9	243.0
22.5°	275.1	263.1	245.2	233.5	229.9
25°	266.7	252.5	233.2	220.8	216.7
27.5°	257.6	241.6	220.8	207.6	202.5
30°	247.0	229.9	208.4	194.5	189.0
32.5°	236.8	218.6	195.6	180.3	174.4
35°	226.2	205.8	182.8	166.4	160.6
37.5°	215.3	193.8	168.6	152.5	144.9
40°	204.3	181.7	155.8	137.6	131.0
42.5°	193.0	169.3	142.7	123.7	115.3
45°	180.3	156.9	129.2	109.1	101.1
47.5°	167.9	144.9	116.8	94.9	87.6
50°	154.7	132.1	103.6	82.5	77.7
52.5°	141.6	119.0	90.9	73.0	70.8
55°	128.4	106.9	78.5	66.0	64.2
57.5°	113.8	94.5	67.5	59.8	58.4
60°	99.3	81.0	58.0	54.0	52.9
62.5°	85.0	69.3	51.5	48.2	47.4
65°	71.5	57.7	45.2	42.7	42.3
67.5°	58.4	47.4	39.4	37.9	37.2
70°	45.2	37.9	33.9	33.2	32.5
72.5°	33.6	30.7	28.8	28.5	28.1
75°	23.4	24.4	23.7	23.7	23.7
77.5°	18.6	19.0	19.3	19.7	19.3
80°	13.5	14.6	15.0	15.7	15.3
82.5°	9.5	10.2	11.3	11.7	12.0
85°	5.8	6.2	7.3	8.0	8.0
87.5°	2.6	2.9	3.6	4.4	4.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)