

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: P1060823

Luminaire Tested: S124RDR-H350D927-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060823  
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-H350D927-X4F0-XX-UDD-BVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

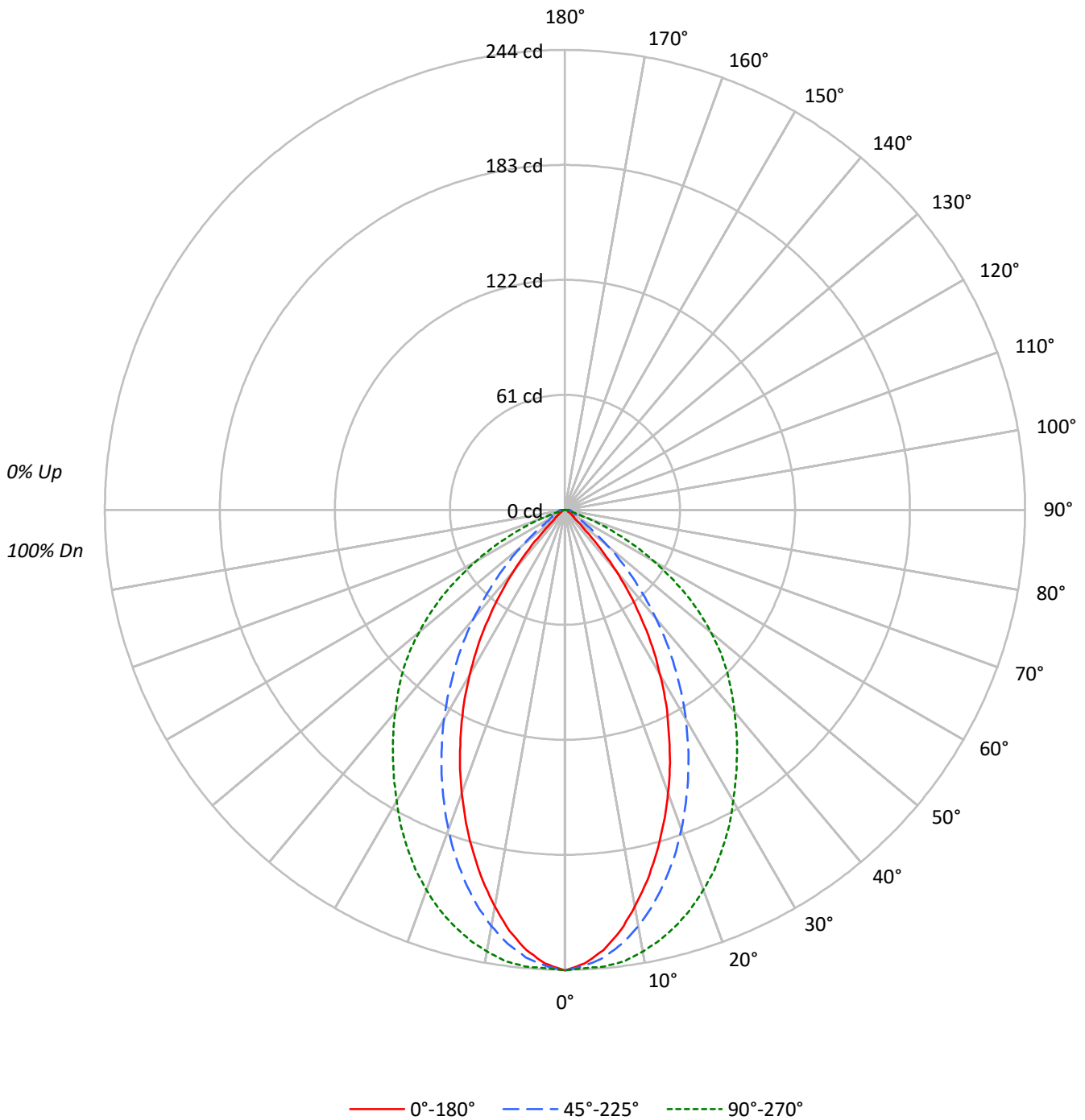
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 306.8 lumens  
Efficiency: N/A  
Efficacy: 26.2 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): 11.7  
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	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	102	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°	2105	2105	2105
5°	2026	2060	2101
10°	1869	1961	2080
15°	1677	1821	2034
20°	1465	1655	1967
25°	1240	1470	1879
30°	1001	1275	1774
35°	745	1065	1671
40°	473	844	1573
45°	189	619	1482
50°	83	395	1353
55°	63	204	1182
60°	45	140	937
65°	33	139	640
70°	33	123	295
75°	43	130	120
80°	64	144	129
85°	128	257	188

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 1482 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	22.4	7.3
10°-20°	57.7	18.8
20°-30°	72.9	23.8
30°-40°	67.0	21.8
40°-50°	45.6	14.9
50°-60°	24.8	8.1
60°-70°	10.5	3.4
70°-80°	3.6	1.2
80°-90°	2.3	0.8
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°	153.0	49.9
0°-40°	219.9	71.7
0°-60°	290.3	94.6
0°-90°	306.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	306.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	244	244	244	244	244	
5°	234	238	238	240	243	22
15°	188	194	204	219	228	52
25°	130	139	155	179	198	60
35°	71	80	101	133	159	44
45°	16	25	51	90	122	14
55°	4	4	14	50	79	4
65°	2	2	7	16	31	2
75°	1	4	4	4	4	1
85°	1	3	3	3	2	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	244.4	244.4	244.4	244.4	244.4
2.5°	240.9	243.8	242.1	242.8	243.4
5°	234.4	237.9	238.3	240.2	243.1
7.5°	225.3	229.5	232.1	237.0	241.5
10°	213.7	218.8	224.3	232.1	237.9
12.5°	201.4	206.9	215.0	226.0	233.7
15°	188.1	194.2	204.3	218.8	228.2
17.5°	174.2	181.0	192.9	210.1	222.1
20°	159.9	167.4	180.6	200.1	214.6
22.5°	145.4	153.1	167.7	189.7	206.9
25°	130.5	138.9	154.7	178.7	197.8
27.5°	116.2	124.0	141.5	167.7	188.7
30°	100.7	109.4	128.2	156.4	178.4
32.5°	86.4	94.9	114.6	144.7	168.7
35°	70.9	80.3	101.3	133.1	159.0
37.5°	56.3	65.4	88.4	122.0	149.6
40°	42.1	51.5	75.1	111.0	139.9
42.5°	28.2	38.2	62.5	99.7	130.8
45°	15.5	24.9	50.8	90.0	121.7
47.5°	8.1	13.6	39.8	80.3	112.0
50°	6.2	7.4	29.5	69.6	101.0
52.5°	5.2	5.5	20.1	58.9	90.0
55°	4.2	4.5	13.6	49.5	78.7
57.5°	3.2	3.6	9.7	40.5	66.0
60°	2.6	2.9	8.1	31.1	54.4
62.5°	1.9	2.3	7.8	23.0	42.7
65°	1.6	1.9	6.8	15.5	31.4
67.5°	1.3	1.9	5.8	10.0	21.0
70°	1.3	2.6	4.9	6.5	11.7
72.5°	1.3	2.9	4.2	4.2	4.2
75°	1.3	3.6	3.9	3.6	3.6
77.5°	1.3	3.2	3.2	3.2	3.2
80°	1.3	2.9	2.9	2.9	2.6
82.5°	1.3	2.6	2.9	2.9	2.3
85°	1.3	2.6	2.6	2.6	1.9
87.5°	1.0	2.6	2.6	2.6	1.3
90°	0.0	0.0	0.0	0.0	0.0



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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	0.00	0.00	0.00	0.00	0.00	11.03	12.31	11.40	12.62	12.93
	3H	0.00	0.00	0.00	0.00	0.00	11.39	12.51	11.77	12.84	13.21
	4H	0.00	0.00	0.00	0.00	0.00	11.35	12.40	11.76	12.75	13.14
	6H	0.00	0.00	0.00	0.00	0.00	11.33	12.29	11.74	12.66	13.05
	8H	0.00	0.00	0.00	0.00	0.00	11.32	12.23	11.75	12.62	13.02
	12H	0.00	0.00	0.00	0.05	0.48	11.31	12.18	11.75	12.57	13.00
4H	2H	0.00	0.00	0.00	0.00	0.00	10.83	11.88	11.24	12.23	12.62
	3H	0.00	0.00	0.00	0.00	0.00	11.23	12.08	11.64	12.49	12.89
	4H	0.00	0.39	0.06	0.81	1.25	11.21	11.97	11.64	12.39	12.84
	6H	0.85	1.51	1.31	1.96	2.42	11.23	11.88	11.69	12.33	12.80
	8H	1.42	2.04	1.89	2.48	2.96	11.24	11.85	11.71	12.30	12.77
	12H	2.10	2.64	2.59	3.13	3.60	11.27	11.81	11.76	12.30	12.77
8H	4H	0.69	1.30	1.16	1.75	2.22	11.11	11.72	11.58	12.17	12.64
	6H	2.28	2.78	2.78	3.28	3.76	11.16	11.66	11.66	12.16	12.64
	8H	3.12	3.57	3.64	4.09	4.58	11.21	11.67	11.74	12.18	12.68
	12H	4.09	4.49	4.61	4.99	5.56	11.33	11.73	11.85	12.22	12.80
12H	4H	0.87	1.41	1.36	1.90	2.37	11.07	11.61	11.56	12.10	12.57
	6H	2.62	3.07	3.15	3.59	4.08	11.12	11.58	11.65	12.09	12.59
	8H	3.65	4.05	4.16	4.54	5.12	11.23	11.63	11.74	12.12	12.70