

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: P1060843

Luminaire Tested: S124RDR-H350D935-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060843  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-38)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H350D935-X4F0-XX-UDD-SVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

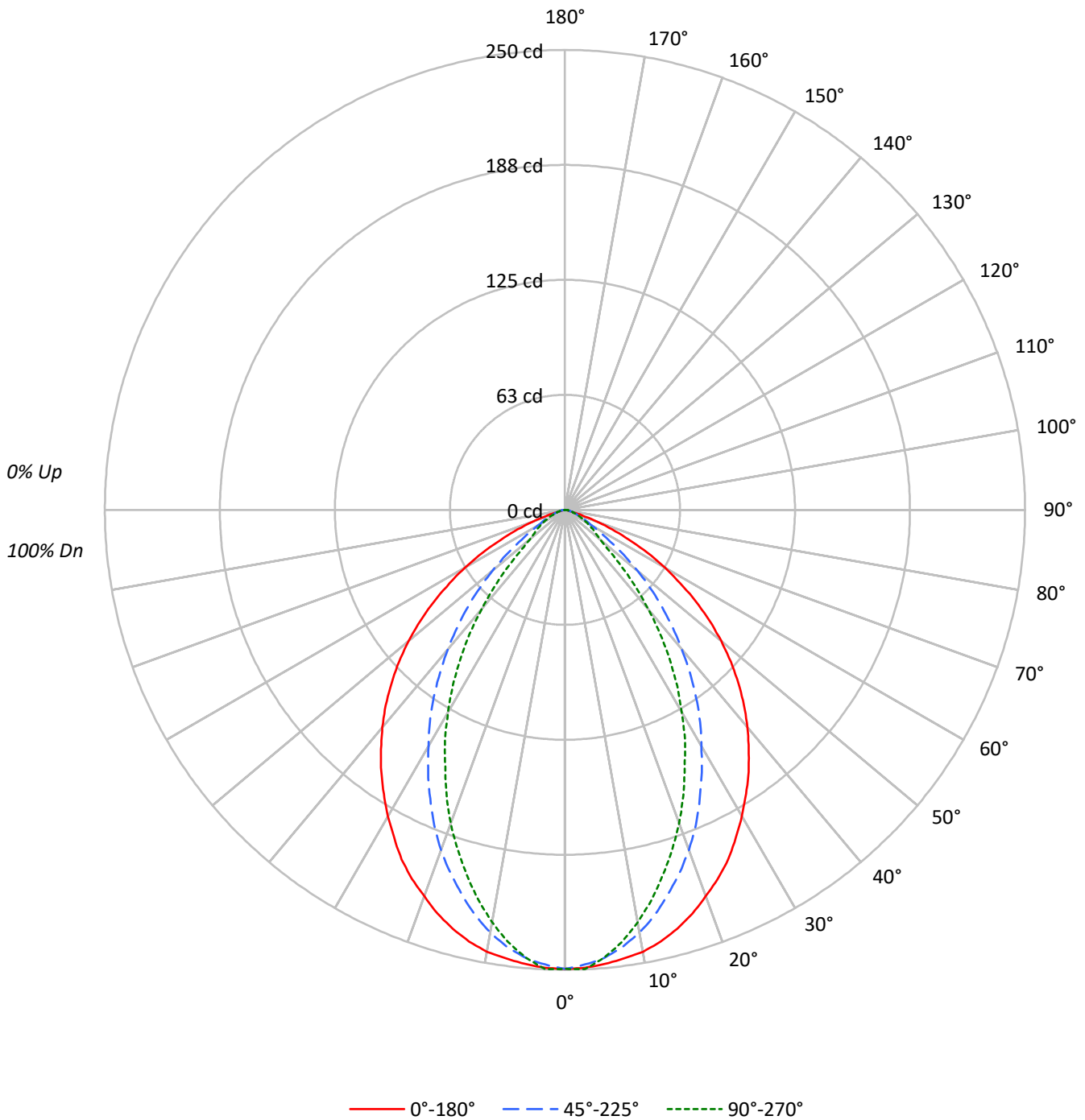
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 368.0 lumens  
Efficiency: N/A  
Efficacy: 31.4 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02  
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	97	98	96	94	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63
5	84	74	66	61	82	73	66	60	71	65	60	69	63	59	67	62	59	57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51
7	74	62	55	50	72	61	54	49	60	54	49	59	53	49	58	52	48	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36

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

	0°	45°	90°
0°	2148	2148	2148
5°	2142	2114	2112
10°	2133	2041	1991
15°	2102	1930	1833
20°	2048	1803	1662
25°	1993	1647	1462
30°	1912	1475	1262
35°	1829	1305	1042
40°	1734	1111	790
45°	1622	907	531
50°	1483	687	330
55°	1303	453	279
60°	1078	279	231
65°	780	214	185
70°	425	159	141
75°	93	116	130
80°	69	89	104
85°	69	69	109

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1622 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	23.1	6.3
10°-20°	61.4	16.7
20°-30°	81.4	22.1
30°-40°	80.7	21.9
40°-50°	62.1	16.9
50°-60°	37.0	10.1
60°-70°	16.8	4.6
70°-80°	4.4	1.2
80°-90°	1.0	0.3
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°	165.9	45.1
0°-40°	246.6	67.0
0°-60°	345.8	94.0
0°-90°	368.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	368.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	250	250	250	250	250	
5°	248	248	245	245	244	24
15°	236	230	216	209	206	66
25°	210	195	173	159	154	96
35°	174	152	124	105	99	109
45°	133	107	74	52	44	103
55°	87	62	30	19	19	77
65°	38	23	10	9	9	39
75°	3	4	4	4	4	6
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	249.5	249.5	249.5	249.5	249.5
2.5°	249.2	249.5	247.4	249.2	249.9
5°	247.8	248.1	244.6	244.6	244.3
7.5°	246.0	245.3	239.7	237.6	236.9
10°	243.9	241.5	233.4	229.2	227.7
12.5°	240.4	236.5	225.6	219.7	217.2
15°	235.8	229.9	216.5	209.1	205.6
17.5°	230.2	222.8	207.0	197.5	193.7
20°	223.5	213.7	196.8	184.9	181.4
22.5°	217.2	204.9	185.6	171.9	168.0
25°	209.8	194.7	173.3	158.9	153.9
27.5°	201.0	184.9	161.0	146.2	141.3
30°	192.3	174.3	148.3	132.9	126.9
32.5°	183.1	163.4	136.7	119.1	113.5
35°	174.0	152.2	124.1	105.1	99.1
37.5°	164.1	140.9	111.4	91.7	85.1
40°	154.3	130.0	98.8	78.7	70.3
42.5°	144.1	118.8	86.5	65.4	56.9
45°	133.2	107.2	74.5	52.0	43.6
47.5°	122.3	96.3	62.6	39.0	31.3
50°	110.7	84.7	51.3	28.5	24.6
52.5°	99.1	73.5	40.1	22.1	21.1
55°	86.8	61.9	30.2	19.0	18.6
57.5°	74.2	51.3	21.8	16.5	15.8
60°	62.6	41.5	16.2	14.1	13.4
62.5°	50.6	31.3	13.4	11.6	10.9
65°	38.3	22.8	10.5	9.1	9.1
67.5°	27.8	15.5	8.4	7.4	7.0
70°	16.9	9.5	6.3	6.0	5.6
72.5°	8.4	5.6	4.9	4.6	4.6
75°	2.8	3.5	3.5	3.9	3.9
77.5°	2.1	2.5	2.5	2.8	2.8
80°	1.4	1.8	1.8	2.1	2.1
82.5°	1.1	1.1	1.4	1.4	1.8
85°	0.7	0.7	0.7	1.1	1.1
87.5°	0.4	0.4	0.4	0.7	0.7
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	11.78	13.11	12.14	13.42	13.74	3.32	4.65	3.68	4.97	5.28
	3H	12.29	13.47	12.67	13.80	14.16	4.14	5.32	4.52	5.65	6.01
	4H	12.25	13.35	12.66	13.70	14.08	4.43	5.52	4.83	5.87	6.26
	6H	12.19	13.20	12.60	13.57	13.96	4.59	5.60	5.01	5.97	6.37
	8H	12.15	13.10	12.58	13.50	13.90	4.66	5.62	5.09	6.01	6.41
	12H	12.11	13.02	12.54	13.41	13.84	4.71	5.62	5.15	6.01	6.44
4H	2H	11.62	12.72	12.02	13.07	13.45	3.76	4.86	4.16	5.21	5.59
	3H	12.17	13.07	12.59	13.47	13.87	4.72	5.62	5.14	6.02	6.43
	4H	12.14	12.94	12.58	13.36	13.80	5.10	5.89	5.53	6.31	6.76
	6H	12.09	12.78	12.55	13.22	13.69	5.34	6.03	5.81	6.48	6.94
	8H	12.04	12.68	12.51	13.13	13.60	5.44	6.08	5.91	6.52	6.99
	12H	12.01	12.57	12.49	13.05	13.53	5.52	6.08	6.01	6.57	7.04
8H	4H	12.03	12.67	12.50	13.12	13.59	5.19	5.82	5.65	6.27	6.74
	6H	11.97	12.49	12.47	12.99	13.47	5.49	6.02	6.00	6.51	6.99
	8H	11.92	12.39	12.45	12.91	13.40	5.63	6.10	6.15	6.61	7.10
	12H	11.89	12.31	12.41	12.80	13.37	5.77	6.19	6.29	6.68	7.26
12H	4H	11.99	12.55	12.48	13.04	13.51	5.16	5.72	5.65	6.21	6.68
	6H	11.92	12.38	12.44	12.90	13.39	5.47	5.94	6.00	6.46	6.95
	8H	11.89	12.30	12.40	12.80	13.37	5.65	6.06	6.16	6.56	7.13