

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: P1060822

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060822  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-39)  
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-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

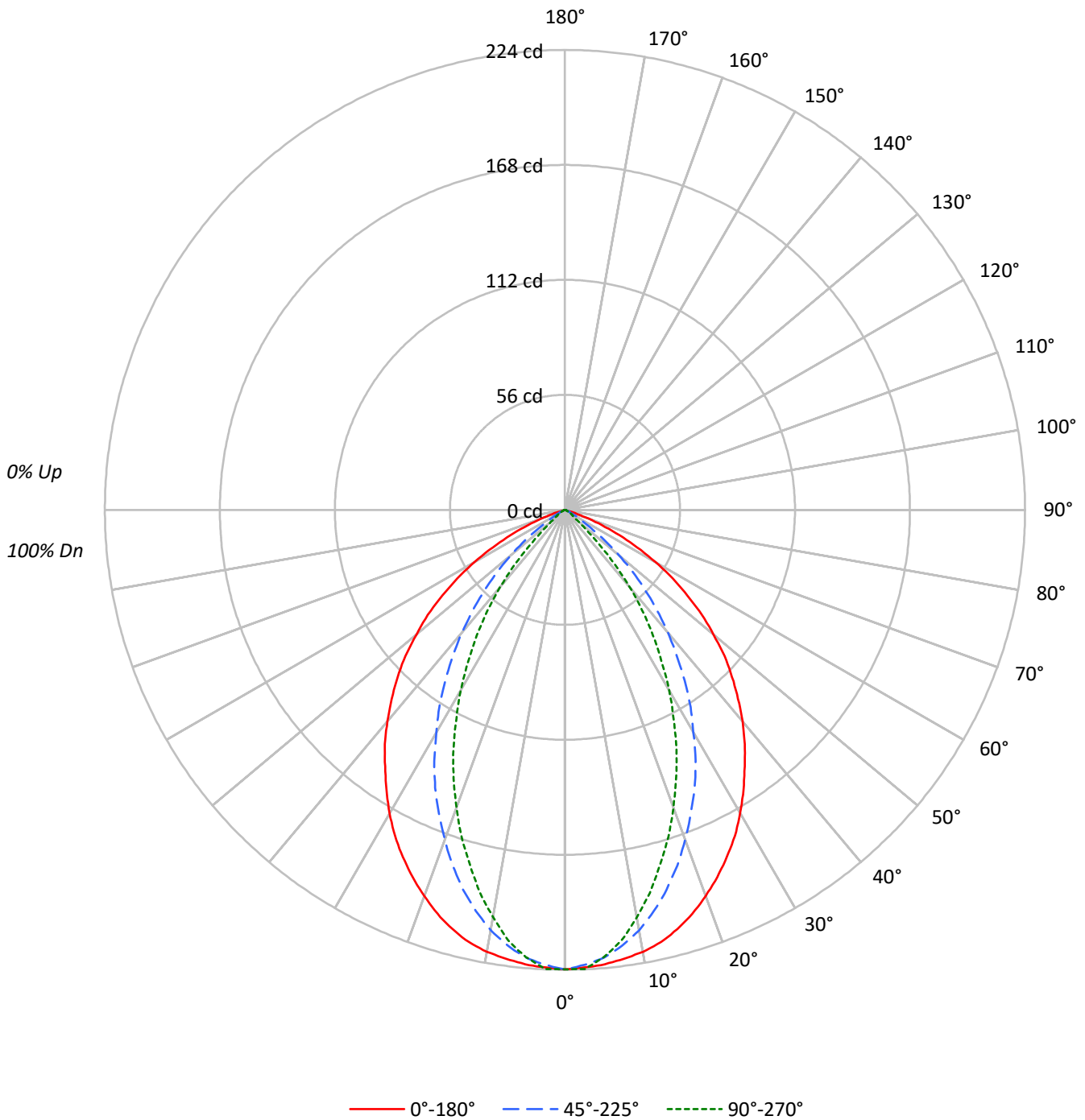
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 292.2 lumens  
Efficiency: N/A  
Efficacy: 25.0 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98  
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	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93	91
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	76	71	90	82	76	71	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	45	66	56	49	44	54	48	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	45	41	51	45	41	50	45	41	49	44	41	39

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

	0°	45°	90°
0°	1927	1927	1927
5°	1921	1892	1890
10°	1911	1818	1762
15°	1886	1706	1594
20°	1835	1568	1414
25°	1773	1419	1220
30°	1697	1244	1009
35°	1604	1067	785
40°	1512	876	549
45°	1402	673	272
50°	1265	455	91
55°	1093	233	63
60°	875	84	45
65°	599	47	20
70°	269	25	15
75°	0	10	10
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1402 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	20.7	7.1
10°-20°	54.2	18.5
20°-30°	70.1	24.0
30°-40°	66.6	22.8
40°-50°	47.2	16.1
50°-60°	24.2	8.3
60°-70°	8.5	2.9
70°-80°	0.7	0.2
80°-90°	0.0	0.0
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°	145.0	49.6
0°-40°	211.6	72.4
0°-60°	283.0	96.9
0°-90°	292.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	292.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	224	224	224	224	224	
5°	222	222	219	219	219	21
15°	212	205	191	182	179	59
25°	187	172	149	134	128	86
35°	153	130	102	82	75	95
45°	115	89	55	32	22	89
55°	73	48	16	4	4	65
65°	29	14	2	1	1	29
75°	0	0	0	0	0	2
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	223.8	223.8	223.8	223.8	223.8
2.5°	223.1	223.8	221.8	223.5	223.8
5°	222.2	222.5	218.9	218.9	218.6
7.5°	220.5	219.9	214.1	211.8	211.5
10°	218.6	216.3	207.9	203.1	201.5
12.5°	215.7	211.5	200.2	193.1	191.1
15°	211.5	205.0	191.4	182.4	178.8
17.5°	206.3	197.9	181.7	170.7	167.2
20°	200.2	189.5	171.1	158.8	154.3
22.5°	193.7	181.4	160.1	146.2	141.6
25°	186.6	172.0	149.4	133.6	128.4
27.5°	179.1	162.0	137.8	121.3	114.5
30°	170.7	152.0	125.1	108.0	101.5
32.5°	161.7	141.0	113.8	95.4	87.6
35°	152.6	130.3	101.5	81.8	74.7
37.5°	143.9	120.3	89.3	68.6	61.8
40°	134.5	109.3	77.9	56.6	48.8
42.5°	124.8	98.6	66.3	44.3	35.9
45°	115.1	88.6	55.3	31.7	22.3
47.5°	105.4	77.9	44.6	20.0	12.0
50°	94.4	67.6	34.0	10.7	6.8
52.5°	84.1	57.9	24.3	6.1	5.2
55°	72.8	47.9	15.5	4.5	4.2
57.5°	62.1	38.2	8.7	3.6	3.2
60°	50.8	29.4	4.9	2.9	2.6
62.5°	39.5	21.3	3.2	1.9	1.6
65°	29.4	14.2	2.3	1.3	1.0
67.5°	19.4	8.1	1.6	0.6	0.6
70°	10.7	3.9	1.0	0.6	0.6
72.5°	3.9	1.3	0.6	0.3	0.3
75°	0.0	0.3	0.3	0.3	0.3
77.5°	0.0	0.0	0.0	0.0	0.3
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	10.81	12.07	11.18	12.38	12.70	0.00	0.00	0.00	0.00	0.00
	3H	11.09	12.20	11.47	12.53	12.89	0.00	0.00	0.00	0.00	0.00
	4H	11.01	12.04	11.42	12.39	12.78	0.00	0.00	0.00	0.00	0.00
	6H	10.93	11.87	11.34	12.24	12.63	0.00	0.00	0.00	0.00	0.00
	8H	10.88	11.77	11.31	12.16	12.57	0.00	0.00	0.00	0.00	0.00
	12H	10.84	11.68	11.27	12.07	12.50	0.00	0.00	0.00	0.00	0.00
4H	2H	10.59	11.61	10.99	11.96	12.35	0.00	0.00	0.00	0.00	0.00
	3H	10.87	11.70	11.28	12.10	12.51	0.00	0.00	0.00	0.00	0.00
	4H	10.78	11.51	11.21	11.93	12.38	0.00	0.00	0.00	0.00	0.00
	6H	10.69	11.32	11.16	11.77	12.24	0.00	0.00	0.00	0.00	0.00
	8H	10.63	11.22	11.10	11.67	12.14	0.00	0.00	0.00	0.00	0.00
	12H	10.58	11.09	11.07	11.58	12.05	0.00	0.00	0.00	0.00	0.00
8H	4H	10.63	11.22	11.10	11.67	12.14	0.00	0.00	0.00	0.00	0.00
	6H	10.52	11.00	11.03	11.50	11.98	0.00	0.00	0.00	0.00	0.00
	8H	10.45	10.88	10.98	11.40	11.89	0.00	0.00	0.00	0.00	0.00
	12H	10.40	10.78	10.92	11.28	11.85	0.00	0.00	0.00	0.00	0.00
12H	4H	10.58	11.09	11.07	11.58	12.05	0.00	0.00	0.00	0.00	0.00
	6H	10.45	10.88	10.98	11.40	11.89	0.00	0.00	0.00	0.00	0.00
	8H	10.40	10.78	10.92	11.28	11.85	0.00	0.00	0.00	0.00	0.00