

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: P1061020

Luminaire Tested: S124RDR-H795D950-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1061020
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-H795D950-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: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

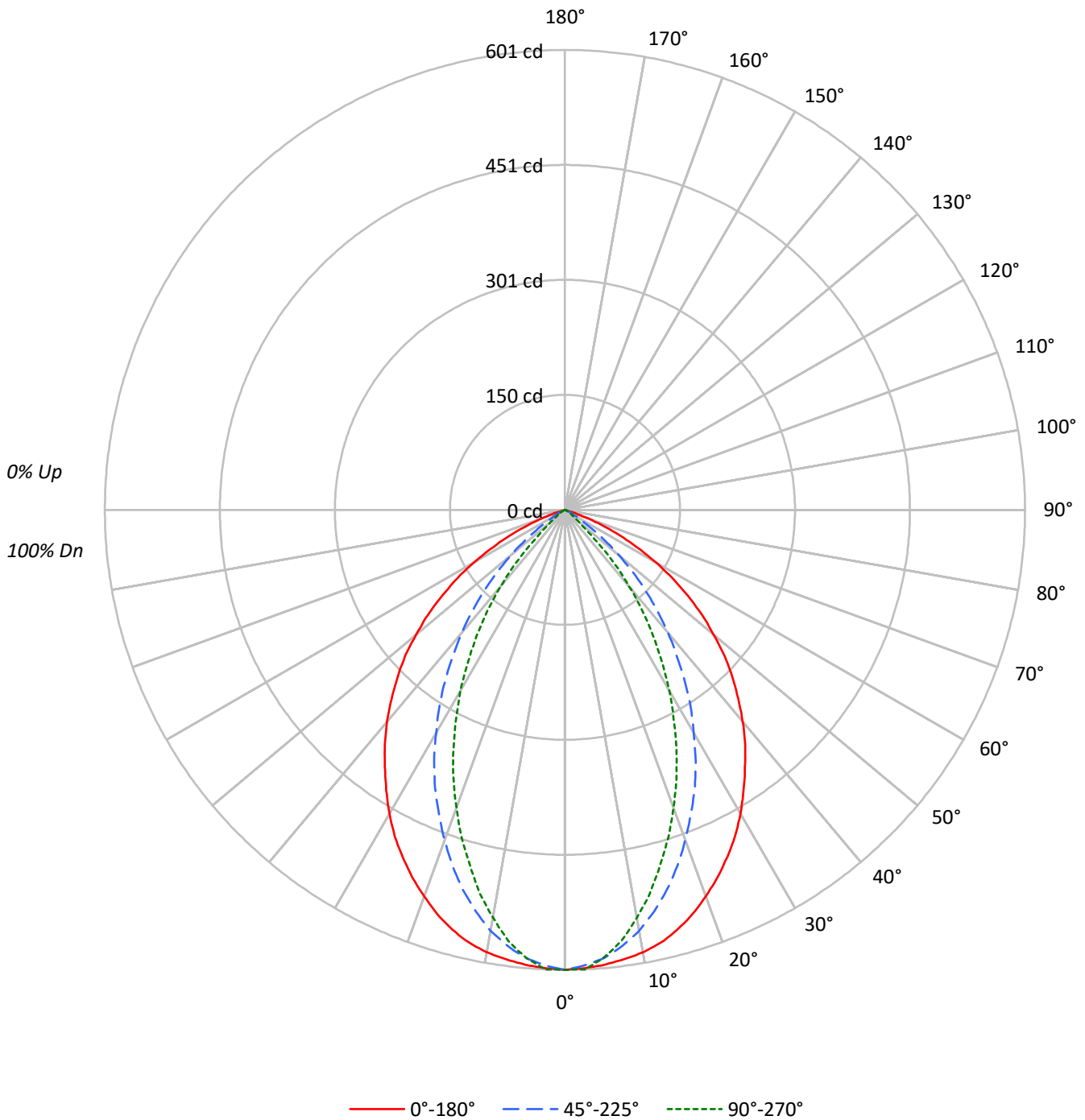
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 784.8 lumens
Efficiency: N/A
Efficacy: 33.4 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): 23.5
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	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	44	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°	5175	5175	5175
5°	5158	5083	5075
10°	5134	4884	4731
15°	5064	4584	4282
20°	4926	4211	3797
25°	4761	3813	3276
30°	4560	3342	2712
35°	4310	2867	2109
40°	4061	2353	1474
45°	3765	1808	729
50°	3397	1222	244
55°	2934	626	170
60°	2349	224	119
65°	1610	124	53
70°	723	65	43
75°	0	30	30
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3765 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.5	7.1
10°-20°	145.5	18.5
20°-30°	188.4	24.0
30°-40°	178.9	22.8
40°-50°	126.7	16.1
50°-60°	65.1	8.3
60°-70°	22.7	2.9
70°-80°	2.0	0.3
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°	389.4	49.6
0°-40°	568.3	72.4
0°-60°	760.1	96.9
0°-90°	784.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	784.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	601	601	601	601	601	
5°	597	598	588	588	587	57
15°	568	551	514	490	480	160
25°	501	462	401	359	345	230
35°	410	350	273	220	201	256
45°	309	238	148	85	60	238
55°	195	128	42	12	11	175
65°	79	38	6	4	3	79
75°	0	1	1	1	1	6
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°	601.0	601.0	601.0	601.0	601.0
2.5°	599.3	601.0	595.8	600.2	601.0
5°	596.7	597.6	588.0	588.0	587.1
7.5°	592.3	590.6	575.0	568.9	568.0
10°	587.1	581.1	558.5	545.4	541.1
12.5°	579.3	568.0	537.6	518.5	513.3
15°	568.0	550.7	514.2	489.9	480.3
17.5°	554.1	531.5	488.1	458.6	449.0
20°	537.6	509.0	459.5	426.5	414.3
22.5°	520.3	487.3	429.9	392.6	380.4
25°	501.1	462.1	401.3	358.7	344.8
27.5°	481.2	435.1	370.0	325.7	307.5
30°	458.6	408.2	336.1	290.1	272.7
32.5°	434.3	378.7	305.7	256.2	235.4
35°	410.0	350.0	272.7	219.7	200.6
37.5°	386.5	323.1	239.7	184.1	165.9
40°	361.3	293.6	209.3	152.0	131.1
42.5°	335.3	264.9	178.1	119.0	96.4
45°	309.2	238.0	148.5	85.1	59.9
47.5°	283.1	209.3	119.9	53.8	32.1
50°	253.6	181.5	91.2	28.7	18.2
52.5°	225.8	155.5	65.1	16.5	13.9
55°	195.4	128.5	41.7	12.2	11.3
57.5°	166.8	102.5	23.5	9.6	8.7
60°	136.4	79.0	13.0	7.8	6.9
62.5°	106.0	57.3	8.7	5.2	4.3
65°	79.0	38.2	6.1	3.5	2.6
67.5°	52.1	21.7	4.3	1.7	1.7
70°	28.7	10.4	2.6	1.7	1.7
72.5°	10.4	3.5	1.7	0.9	0.9
75°	0.0	0.9	0.9	0.9	0.9
77.5°	0.0	0.0	0.0	0.0	0.9
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	14.24	15.50	14.61	15.81	16.13	0.00	0.00	0.00	0.00	0.00
	3H	14.52	15.62	14.90	15.95	16.32	0.00	0.00	0.00	0.00	0.00
	4H	14.44	15.47	14.85	15.82	16.20	0.00	0.00	0.00	0.00	0.00
	6H	14.36	15.29	14.77	15.67	16.06	0.00	0.00	0.00	0.00	0.00
	8H	14.31	15.20	14.74	15.59	15.99	0.00	0.00	0.00	0.00	0.00
	12H	14.26	15.11	14.70	15.49	15.92	0.00	0.00	0.00	0.00	0.00
4H	2H	14.01	15.04	14.42	15.39	15.78	0.00	0.00	0.00	0.00	0.00
	3H	14.30	15.13	14.71	15.53	15.94	0.00	0.00	0.00	0.00	0.00
	4H	14.21	14.94	14.64	15.36	15.81	0.00	0.00	0.00	0.00	0.00
	6H	14.12	14.75	14.58	15.20	15.66	0.00	0.00	0.00	0.00	0.00
	8H	14.06	14.64	14.53	15.09	15.57	0.00	0.00	0.00	0.00	0.00
	12H	14.00	14.52	14.49	15.01	15.48	0.00	0.00	0.00	0.00	0.00
8H	4H	14.06	14.64	14.53	15.09	15.57	0.00	0.00	0.00	0.00	0.00
	6H	13.95	14.42	14.45	14.92	15.41	0.00	0.00	0.00	0.00	0.00
	8H	13.88	14.31	14.41	14.83	15.32	0.00	0.00	0.00	0.00	0.00
	12H	13.83	14.21	14.35	14.70	15.28	0.00	0.00	0.00	0.00	0.00
12H	4H	14.01	14.52	14.49	15.01	15.48	0.00	0.00	0.00	0.00	0.00
	6H	13.88	14.31	14.41	14.83	15.32	0.00	0.00	0.00	0.00	0.00
	8H	13.83	14.21	14.35	14.70	15.28	0.00	0.00	0.00	0.00	0.00