

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: P1060966

Luminaire Tested: S124RDR-H795D840-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060966
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-H795D840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

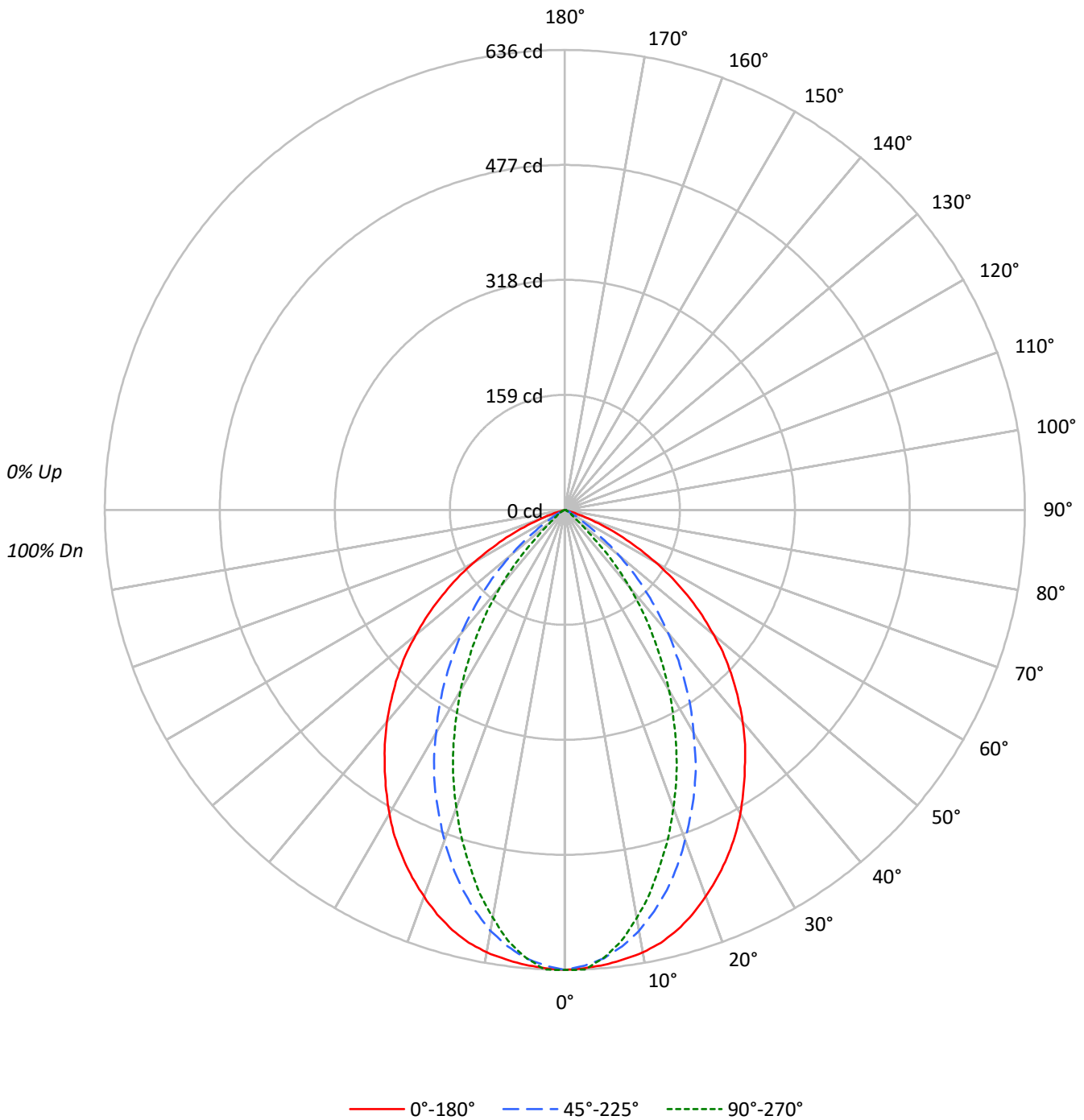
Lumens per Lamp: N/A
Luminaire Lumens: 830.8 lumens
Efficiency: N/A
Efficacy: 35.4 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	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°	5478	5478	5478
5°	5460	5380	5372
10°	5434	5169	5009
15°	5361	4852	4532
20°	5215	4457	4019
25°	5040	4036	3468
30°	4826	3538	2871
35°	4562	3035	2233
40°	4300	2491	1560
45°	3986	1914	772
50°	3597	1293	259
55°	3106	662	180
60°	2485	238	127
65°	1705	130	57
70°	763	70	45
75°	0	30	30
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3986 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.8	7.1
10°-20°	154.0	18.5
20°-30°	199.4	24.0
30°-40°	189.4	22.8
40°-50°	134.2	16.1
50°-60°	68.9	8.3
60°-70°	24.1	2.9
70°-80°	2.1	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°	412.1	49.6
0°-40°	601.6	72.4
0°-60°	804.6	96.9
0°-90°	830.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	830.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	636	636	636	636	636	
5°	632	632	622	622	622	60
15°	601	583	544	518	508	169
25°	530	489	425	380	365	244
35°	434	370	289	233	212	272
45°	327	252	157	90	63	252
55°	207	136	44	13	12	185
65°	84	40	6	4	3	83
75°	0	1	1	1	1	7
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°	636.2	636.2	636.2	636.2	636.2
2.5°	634.4	636.2	630.7	635.3	636.2
5°	631.6	632.5	622.4	622.4	621.5
7.5°	627.0	625.2	608.6	602.2	601.3
10°	621.5	615.1	591.2	577.4	572.8
12.5°	613.2	601.3	569.1	548.9	543.4
15°	601.3	582.9	544.3	518.5	508.4
17.5°	586.6	562.7	516.7	485.4	475.3
20°	569.1	538.8	486.4	451.4	438.6
22.5°	550.7	515.8	455.1	415.6	402.7
25°	530.5	489.1	424.8	379.7	365.0
27.5°	509.3	460.6	391.7	344.8	325.5
30°	485.4	432.1	355.8	307.1	288.7
32.5°	459.7	400.9	323.6	271.2	249.2
35°	434.0	370.5	288.7	232.6	212.4
37.5°	409.1	342.0	253.8	194.9	175.6
40°	382.5	310.8	221.6	160.9	138.8
42.5°	354.9	280.4	188.5	126.0	102.1
45°	327.3	251.9	157.2	90.1	63.4
47.5°	299.7	221.6	126.9	57.0	34.0
50°	268.5	192.2	96.5	30.3	19.3
52.5°	239.0	164.6	69.0	17.5	14.7
55°	206.9	136.1	44.1	12.9	12.0
57.5°	176.5	108.5	24.8	10.1	9.2
60°	144.3	83.7	13.8	8.3	7.4
62.5°	112.2	60.7	9.2	5.5	4.6
65°	83.7	40.5	6.4	3.7	2.8
67.5°	55.2	23.0	4.6	1.8	1.8
70°	30.3	11.0	2.8	1.8	1.8
72.5°	11.0	3.7	1.8	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	14.44	15.69	14.80	16.01	16.32	0.00	0.00	0.00	0.00	0.00
	3H	14.72	15.82	15.10	16.15	16.52	0.00	0.00	0.00	0.00	0.00
	4H	14.64	15.66	15.04	16.02	16.40	0.00	0.00	0.00	0.00	0.00
	6H	14.55	15.49	14.97	15.86	16.26	0.00	0.00	0.00	0.00	0.00
	8H	14.51	15.39	14.94	15.78	16.19	0.00	0.00	0.00	0.00	0.00
	12H	14.46	15.31	14.89	15.69	16.12	0.00	0.00	0.00	0.00	0.00
4H	2H	14.21	15.24	14.62	15.59	15.97	0.00	0.00	0.00	0.00	0.00
	3H	14.49	15.32	14.91	15.73	16.13	0.00	0.00	0.00	0.00	0.00
	4H	14.40	15.14	14.84	15.56	16.00	0.00	0.00	0.00	0.00	0.00
	6H	14.31	14.95	14.78	15.39	15.86	0.00	0.00	0.00	0.00	0.00
	8H	14.25	14.84	14.73	15.29	15.76	0.00	0.00	0.00	0.00	0.00
	12H	14.20	14.72	14.69	15.20	15.68	0.00	0.00	0.00	0.00	0.00
8H	4H	14.25	14.84	14.73	15.29	15.76	0.00	0.00	0.00	0.00	0.00
	6H	14.15	14.62	14.65	15.12	15.60	0.00	0.00	0.00	0.00	0.00
	8H	14.08	14.51	14.60	15.02	15.52	0.00	0.00	0.00	0.00	0.00
	12H	14.03	14.41	14.54	14.90	15.48	0.00	0.00	0.00	0.00	0.00
12H	4H	14.20	14.72	14.69	15.20	15.68	0.00	0.00	0.00	0.00	0.00
	6H	14.08	14.51	14.60	15.02	15.52	0.00	0.00	0.00	0.00	0.00
	8H	14.03	14.41	14.54	14.90	15.48	0.00	0.00	0.00	0.00	0.00