

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: P1060957

Luminaire Tested: S124RDR-H795D835-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060957
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-H795D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

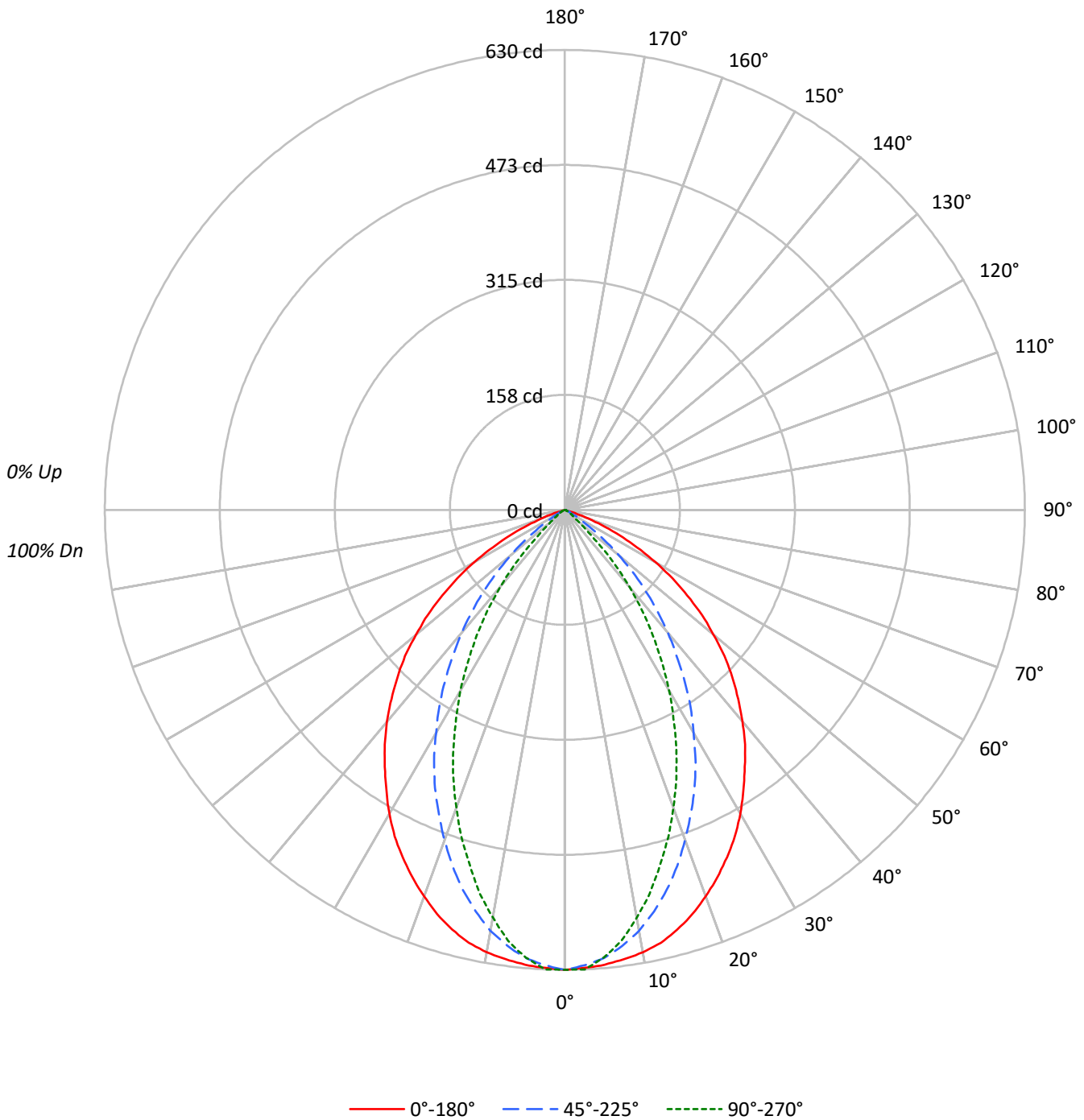
Lumens per Lamp: N/A
Luminaire Lumens: 822.6 lumens
Efficiency: N/A
Efficacy: 35.0 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	5425	5425	5425
5°	5407	5328	5320
10°	5381	5119	4960
15°	5308	4805	4489
20°	5165	4413	3980
25°	4991	3996	3434
30°	4780	3503	2843
35°	4517	3005	2211
40°	4257	2466	1546
45°	3947	1896	765
50°	3561	1281	256
55°	3075	656	177
60°	2461	236	126
65°	1687	130	55
70°	755	68	45
75°	0	30	30
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3947 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.2	7.1
10°-20°	152.5	18.5
20°-30°	197.4	24.0
30°-40°	187.6	22.8
40°-50°	132.8	16.1
50°-60°	68.2	8.3
60°-70°	23.9	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°	408.1	49.6
0°-40°	595.7	72.4
0°-60°	796.7	96.9
0°-90°	822.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	822.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	630	630	630	630	630	
5°	626	626	616	616	615	59
15°	595	577	539	514	504	167
25°	525	484	421	376	361	242
35°	430	367	286	230	210	269
45°	324	250	156	89	63	249
55°	205	135	44	13	12	183
65°	83	40	6	4	3	82
75°	0	1	1	1	1	7
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	630.0	630.0	630.0	630.0	630.0
2.5°	628.2	630.0	624.5	629.1	630.0
5°	625.5	626.4	616.4	616.4	615.4
7.5°	620.9	619.1	602.7	596.3	595.4
10°	615.4	609.1	585.4	571.7	567.2
12.5°	607.3	595.4	563.6	543.5	538.1
15°	595.4	577.2	539.0	513.5	503.5
17.5°	580.8	557.2	511.7	480.7	470.7
20°	563.6	533.5	481.6	447.0	434.3
22.5°	545.3	510.7	450.7	411.5	398.8
25°	525.3	484.3	420.6	376.0	361.4
27.5°	504.4	456.1	387.8	341.4	322.3
30°	480.7	427.9	352.3	304.1	285.9
32.5°	455.2	396.9	320.5	268.6	246.7
35°	429.7	366.9	285.9	230.3	210.3
37.5°	405.1	338.7	251.3	193.0	173.9
40°	378.7	307.7	219.4	159.3	137.5
42.5°	351.4	277.7	186.6	124.7	101.1
45°	324.1	249.5	155.7	89.2	62.8
47.5°	296.8	219.4	125.6	56.4	33.7
50°	265.8	190.3	95.6	30.0	19.1
52.5°	236.7	163.0	68.3	17.3	14.6
55°	204.8	134.7	43.7	12.7	11.8
57.5°	174.8	107.4	24.6	10.0	9.1
60°	142.9	82.8	13.7	8.2	7.3
62.5°	111.1	60.1	9.1	5.5	4.6
65°	82.8	40.1	6.4	3.6	2.7
67.5°	54.6	22.8	4.6	1.8	1.8
70°	30.0	10.9	2.7	1.8	1.8
72.5°	10.9	3.6	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	14.40	15.66	14.77	15.97	16.29	0.00	0.00	0.00	0.00	0.00
	3H	14.68	15.79	15.06	16.12	16.48	0.00	0.00	0.00	0.00	0.00
	4H	14.60	15.63	15.01	15.98	16.36	0.00	0.00	0.00	0.00	0.00
	6H	14.52	15.46	14.93	15.83	16.22	0.00	0.00	0.00	0.00	0.00
	8H	14.47	15.36	14.90	15.75	16.15	0.00	0.00	0.00	0.00	0.00
	12H	14.42	15.27	14.86	15.65	16.08	0.00	0.00	0.00	0.00	0.00
4H	2H	14.18	15.20	14.58	15.55	15.94	0.00	0.00	0.00	0.00	0.00
	3H	14.46	15.29	14.87	15.69	16.10	0.00	0.00	0.00	0.00	0.00
	4H	14.37	15.10	14.80	15.52	15.97	0.00	0.00	0.00	0.00	0.00
	6H	14.28	14.91	14.74	15.36	15.83	0.00	0.00	0.00	0.00	0.00
	8H	14.22	14.81	14.69	15.25	15.73	0.00	0.00	0.00	0.00	0.00
	12H	14.17	14.68	14.65	15.17	15.64	0.00	0.00	0.00	0.00	0.00
8H	4H	14.22	14.81	14.69	15.25	15.73	0.00	0.00	0.00	0.00	0.00
	6H	14.11	14.59	14.61	15.08	15.57	0.00	0.00	0.00	0.00	0.00
	8H	14.04	14.47	14.57	14.99	15.48	0.00	0.00	0.00	0.00	0.00
	12H	13.99	14.37	14.51	14.87	15.44	0.00	0.00	0.00	0.00	0.00
12H	4H	14.17	14.68	14.65	15.17	15.64	0.00	0.00	0.00	0.00	0.00
	6H	14.04	14.47	14.57	14.99	15.48	0.00	0.00	0.00	0.00	0.00
	8H	13.99	14.37	14.51	14.87	15.44	0.00	0.00	0.00	0.00	0.00