

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: P1060951

Luminaire Tested: S124RDR-H795D830-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060951
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-H795D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

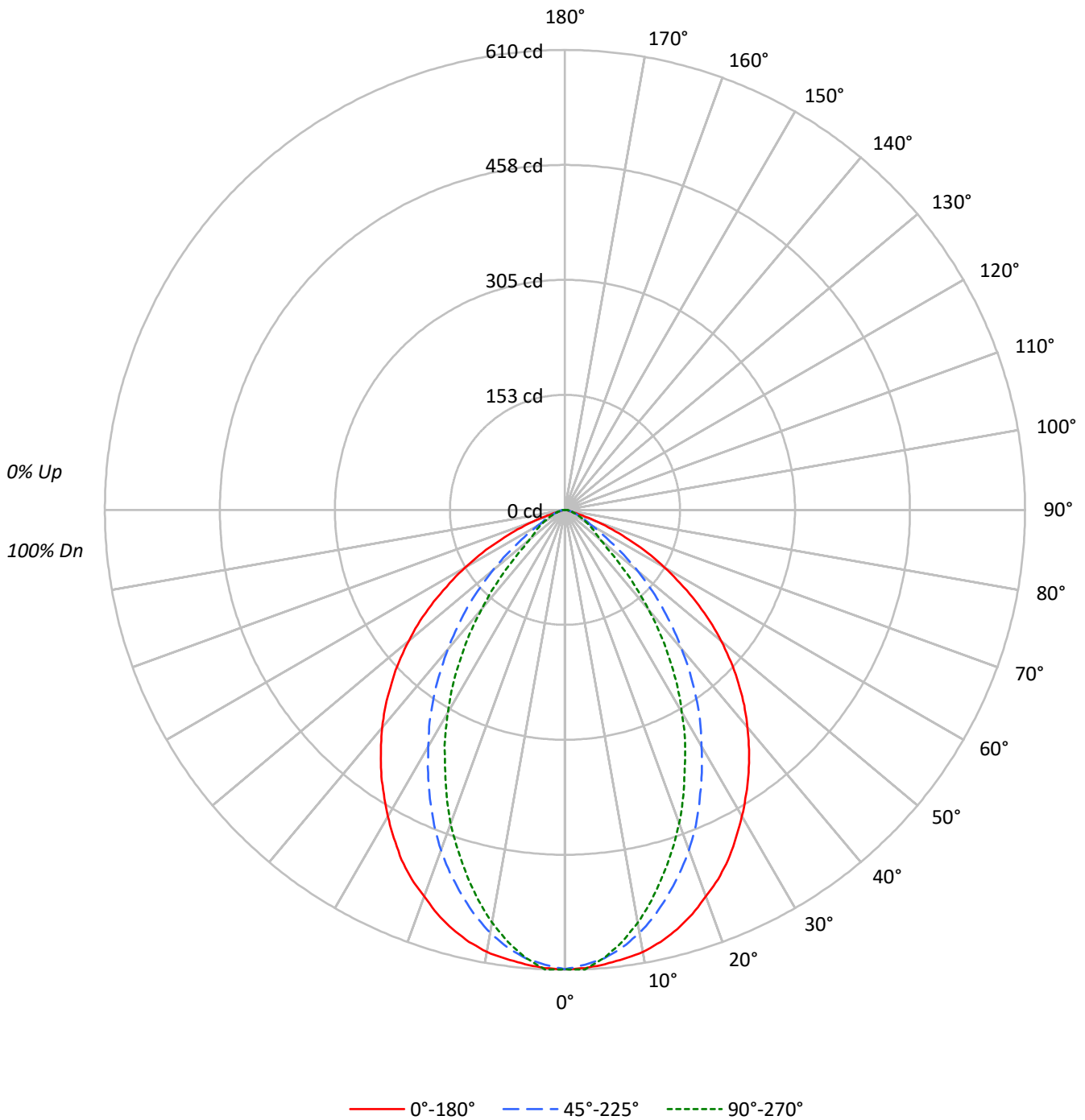
Lumens per Lamp: N/A
Luminaire Lumens: 898.3 lumens
Efficiency: N/A
Efficacy: 38.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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	62	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°	5247	5247	5247
5°	5230	5162	5155
10°	5207	4982	4862
15°	5133	4712	4475
20°	5002	4403	4058
25°	4868	4019	3571
30°	4667	3600	3080
35°	4466	3184	2544
40°	4234	2710	1929
45°	3960	2215	1296
50°	3621	1679	805
55°	3183	1108	683
60°	2630	680	561
65°	1905	524	454
70°	1037	388	345
75°	230	286	313
80°	169	213	253
85°	168	168	257

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3960 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.4	6.3
10°-20°	149.9	16.7
20°-30°	198.6	22.1
30°-40°	197.1	21.9
40°-50°	151.7	16.9
50°-60°	90.4	10.1
60°-70°	41.1	4.6
70°-80°	10.6	1.2
80°-90°	2.4	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°	405.0	45.1
0°-40°	602.1	67.0
0°-60°	844.2	94.0
0°-90°	898.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	898.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	609	609	609	609	609	
5°	605	606	597	597	596	57
15°	576	561	529	511	502	162
25°	512	475	423	388	376	235
35°	425	372	303	257	242	265
45°	325	262	182	127	106	250
55°	212	151	74	46	46	189
65°	94	56	26	22	22	94
75°	7	9	9	9	9	14
85°	2	2	2	3	3	2
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	609.3	609.3	609.3	609.3	609.3
2.5°	608.4	609.3	604.1	608.4	610.1
5°	605.0	605.8	597.2	597.2	596.4
7.5°	600.7	599.0	585.2	580.1	578.4
10°	595.5	589.5	569.8	559.5	556.0
12.5°	586.9	577.5	550.9	536.3	530.3
15°	575.8	561.2	528.6	510.6	502.0
17.5°	562.1	544.0	505.4	482.3	472.8
20°	545.8	521.7	480.5	451.4	442.8
22.5°	530.3	500.3	453.1	419.6	410.2
25°	512.3	475.4	423.0	387.9	375.8
27.5°	490.8	451.4	393.0	357.0	345.0
30°	469.4	425.6	362.1	324.4	309.8
32.5°	447.1	399.0	333.8	290.9	277.2
35°	424.8	371.6	302.9	256.6	242.0
37.5°	400.7	344.1	272.0	224.0	207.7
40°	376.7	317.5	241.1	192.2	171.6
42.5°	351.8	290.0	211.1	159.6	139.0
45°	325.2	261.7	181.9	127.0	106.4
47.5°	298.6	235.1	152.7	95.2	76.4
50°	270.3	206.8	125.3	69.5	60.1
52.5°	242.0	179.3	97.8	54.1	51.5
55°	212.0	151.0	73.8	46.3	45.5
57.5°	181.1	125.3	53.2	40.3	38.6
60°	152.7	101.3	39.5	34.3	32.6
62.5°	123.6	76.4	32.6	28.3	26.6
65°	93.5	55.8	25.7	22.3	22.3
67.5°	67.8	37.8	20.6	18.0	17.2
70°	41.2	23.2	15.4	14.6	13.7
72.5°	20.6	13.7	12.0	11.2	11.2
75°	6.9	8.6	8.6	9.4	9.4
77.5°	5.1	6.0	6.0	6.9	6.9
80°	3.4	4.3	4.3	5.1	5.1
82.5°	2.6	2.6	3.4	3.4	4.3
85°	1.7	1.7	1.7	2.6	2.6
87.5°	0.9	0.9	0.9	1.7	1.7
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	14.88	16.21	15.24	16.53	16.84	6.42	7.76	6.79	8.07	8.38
	3H	15.39	16.57	15.77	16.90	17.26	7.24	8.42	7.62	8.75	9.12
	4H	15.35	16.45	15.76	16.80	17.19	7.52	8.62	7.92	8.97	9.35
	6H	15.29	16.30	15.70	16.67	17.06	7.69	8.70	8.11	9.07	9.47
	8H	15.25	16.21	15.68	16.60	17.00	7.76	8.71	8.19	9.10	9.51
	12H	15.21	16.12	15.65	16.51	16.94	7.80	8.72	8.24	9.10	9.53
4H	2H	14.72	15.82	15.12	16.17	16.55	6.86	7.96	7.27	8.31	8.69
	3H	15.28	16.17	15.69	16.57	16.98	7.83	8.72	8.24	9.13	9.53
	4H	15.24	16.04	15.68	16.46	16.90	8.19	8.99	8.63	9.41	9.85
	6H	15.19	15.88	15.65	16.32	16.79	8.44	9.13	8.91	9.57	10.04
	8H	15.14	15.78	15.61	16.23	16.70	8.53	9.17	9.00	9.62	10.09
	12H	15.11	15.67	15.59	16.15	16.63	8.61	9.17	9.09	9.65	10.13
8H	4H	15.13	15.77	15.60	16.22	16.69	8.28	8.92	8.75	9.37	9.84
	6H	15.07	15.59	15.57	16.09	16.57	8.59	9.11	9.09	9.61	10.09
	8H	15.02	15.49	15.55	16.01	16.50	8.72	9.19	9.24	9.70	10.20
	12H	14.99	15.41	15.51	15.90	16.47	8.86	9.27	9.37	9.77	10.34
12H	4H	15.09	15.66	15.58	16.14	16.61	8.25	8.82	8.74	9.30	9.78
	6H	15.02	15.49	15.54	16.00	16.49	8.57	9.04	9.09	9.55	10.05
	8H	14.99	15.40	15.51	15.90	16.47	8.74	9.15	9.25	9.65	10.22