

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: P1060895

Luminaire Tested: S124RDR-H575D850-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060895
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-78)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H575D850-X4F0-XX-UDD-BVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

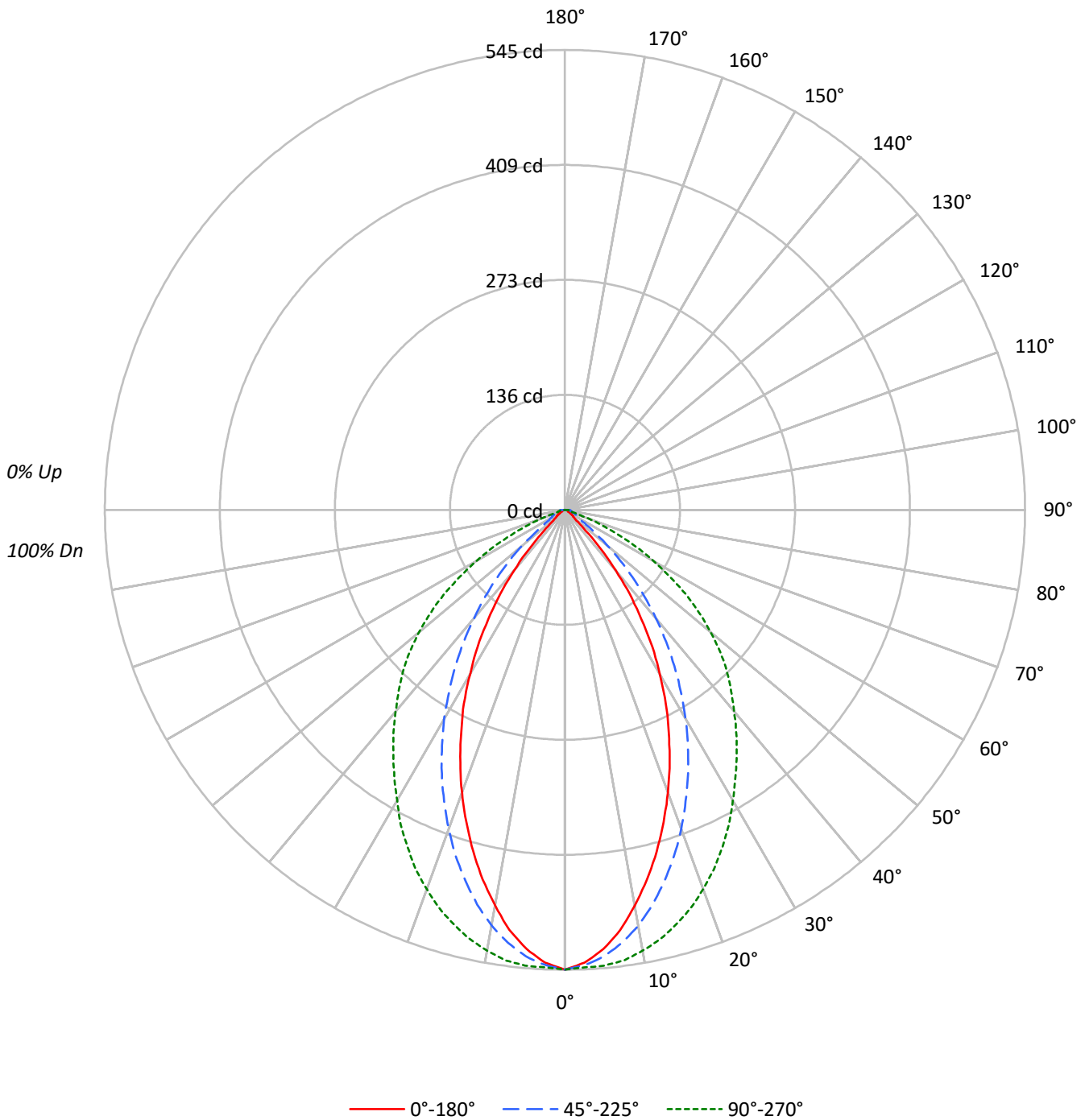
Lumens per Lamp: N/A
Luminaire Lumens: 683.9 lumens
Efficiency: N/A
Efficacy: 39.3 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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									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	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	98	98	96	95	95	93	92	90																												
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81																												
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73																												
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65																												
5	86	76	68	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59																												
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54																												
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	50																												
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46																												
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42																												
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4692	4692	4692
5°	4517	4592	4685
10°	4165	4374	4639
15°	3738	4060	4536
20°	3267	3690	4385
25°	2764	3278	4190
30°	2232	2842	3954
35°	1662	2375	3726
40°	1054	1882	3505
45°	421	1380	3305
50°	184	880	3017
55°	141	455	2633
60°	100	310	2087
65°	73	310	1426
70°	73	272	655
75°	96	289	263
80°	144	322	288
85°	287	573	425

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3305 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.9	7.3
10°-20°	128.7	18.8
20°-30°	162.5	23.8
30°-40°	149.3	21.8
40°-50°	101.8	14.9
50°-60°	55.2	8.1
60°-70°	23.4	3.4
70°-80°	8.1	1.2
80°-90°	5.2	0.8
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°	341.0	49.9
0°-40°	490.3	71.7
0°-60°	647.2	94.6
0°-90°	683.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	683.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	545	545	545	545	545	
5°	522	530	531	536	542	48
15°	419	433	455	488	509	117
25°	291	310	345	398	441	133
35°	158	179	226	297	354	98
45°	35	56	113	201	271	32
55°	9	10	30	110	175	8
65°	4	4	15	35	70	4
75°	3	8	9	8	8	3
85°	3	6	6	6	4	3
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	544.9	544.9	544.9	544.9	544.9
2.5°	537.0	543.5	539.8	541.3	542.7
5°	522.5	530.5	531.2	535.5	542.0
7.5°	502.3	511.7	517.5	528.3	538.4
10°	476.3	487.9	500.2	517.5	530.5
12.5°	448.9	461.2	479.2	503.8	521.1
15°	419.3	433.0	455.4	487.9	508.8
17.5°	388.3	403.4	430.1	468.4	495.1
20°	356.5	373.1	402.7	446.0	478.5
22.5°	324.1	341.4	373.9	422.9	461.2
25°	290.9	309.6	345.0	398.4	441.0
27.5°	259.1	276.4	315.4	373.9	420.8
30°	224.5	243.9	285.8	348.6	397.7
32.5°	192.7	211.5	255.5	322.6	376.0
35°	158.1	179.0	225.9	296.6	354.4
37.5°	125.6	145.8	197.0	272.1	333.4
40°	93.8	114.8	167.4	247.5	311.8
42.5°	62.8	85.2	139.3	222.3	291.6
45°	34.6	55.6	113.3	200.6	271.4
47.5°	18.0	30.3	88.8	179.0	249.7
50°	13.7	16.6	65.7	155.2	225.2
52.5°	11.5	12.3	44.7	131.4	200.6
55°	9.4	10.1	30.3	110.4	175.4
57.5°	7.2	7.9	21.7	90.2	147.2
60°	5.8	6.5	18.0	69.3	121.2
62.5°	4.3	5.1	17.3	51.2	95.3
65°	3.6	4.3	15.2	34.6	70.0
67.5°	2.9	4.3	13.0	22.4	46.9
70°	2.9	5.8	10.8	14.4	26.0
72.5°	2.9	6.5	9.4	9.4	9.4
75°	2.9	7.9	8.7	7.9	7.9
77.5°	2.9	7.2	7.2	7.2	7.2
80°	2.9	6.5	6.5	6.5	5.8
82.5°	2.9	5.8	6.5	6.5	5.1
85°	2.9	5.8	5.8	5.8	4.3
87.5°	2.2	5.8	5.8	5.8	2.9
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	0.00	0.00	0.00	0.00	0.00	13.81	15.09	14.18	15.40	15.72
	3H	0.00	0.00	0.00	0.00	0.00	14.17	15.30	14.55	15.63	15.99
	4H	0.00	0.00	0.00	0.10	0.48	14.13	15.18	14.54	15.53	15.92
	6H	0.08	1.04	0.49	1.41	1.80	14.11	15.07	14.52	15.44	15.84
	8H	0.76	1.67	1.19	2.06	2.47	14.10	15.01	14.53	15.40	15.81
	12H	1.57	2.44	2.00	2.82	3.26	14.10	14.97	14.53	15.35	15.78
4H	2H	0.00	0.56	0.00	0.91	1.30	13.62	14.66	14.02	15.02	15.40
	3H	0.94	1.79	1.35	2.20	2.60	14.01	14.86	14.42	15.27	15.67
	4H	2.38	3.14	2.81	3.56	4.01	13.99	14.75	14.42	15.17	15.62
	6H	3.63	4.28	4.09	4.73	5.20	14.01	14.67	14.47	15.11	15.58
	8H	4.20	4.82	4.67	5.26	5.73	14.02	14.63	14.49	15.08	15.55
	12H	4.88	5.42	5.37	5.91	6.38	14.06	14.60	14.54	15.08	15.56
8H	4H	3.45	4.07	3.92	4.52	4.99	13.89	14.50	14.36	14.95	15.42
	6H	5.07	5.57	5.57	6.07	6.55	13.94	14.44	14.44	14.94	15.42
	8H	5.91	6.36	6.43	6.88	7.37	14.00	14.45	14.52	14.97	15.46
	12H	6.88	7.28	7.40	7.78	8.35	14.11	14.51	14.63	15.01	15.58
12H	4H	3.64	4.18	4.13	4.67	5.14	13.85	14.39	14.34	14.88	15.35
	6H	5.41	5.87	5.94	6.38	6.88	13.91	14.36	14.43	14.88	15.37
	8H	6.44	6.84	6.96	7.34	7.91	14.01	14.41	14.53	14.91	15.48