

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: P1060898

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060898
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-77)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H575D850-X4F0-XX-UDD-SVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

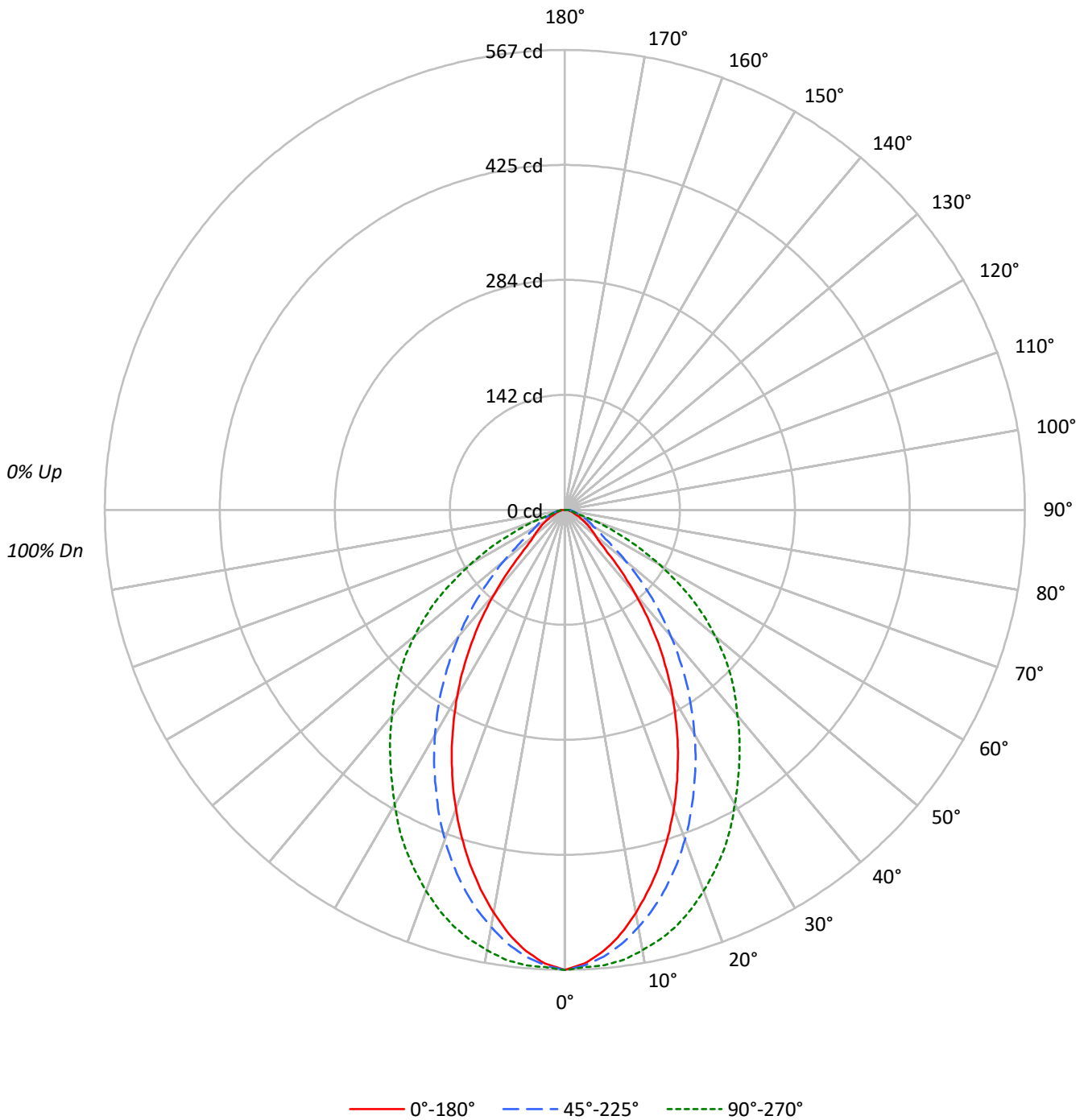
Lumens per Lamp: N/A
Luminaire Lumens: 797.5 lumens
Efficiency: N/A
Efficacy: 45.8 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	
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				100
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79				79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70				70
4	90	80	73	68	88	79	72	67	77	71	67	75	70	66	73	68	65	63				63
5	84	73	66	61	82	72	65	60	70	64	60	69	63	59	67	62	59	57				57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51				51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	49	47				47
8	69	58	50	45	68	57	50	45	56	50	45	55	49	45	54	48	45	43				43
9	65	54	47	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39				39
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	36				36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4884	4884	4884
5°	4721	4778	4871
10°	4410	4568	4821
15°	4027	4297	4735
20°	3597	3967	4582
25°	3134	3579	4401
30°	2640	3179	4168
35°	2109	2753	3944
40°	1516	2288	3723
45°	913	1801	3523
50°	658	1305	3238
55°	552	877	2870
60°	448	696	2311
65°	352	632	1661
70°	310	526	891
75°	289	479	433
80°	288	501	392
85°	425	711	504

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3523 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.1	6.5
10°-20°	136.4	17.1
20°-30°	177.0	22.2
30°-40°	170.1	21.3
40°-50°	126.2	15.8
50°-60°	77.3	9.7
60°-70°	37.6	4.7
70°-80°	14.3	1.8
80°-90°	6.4	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°	365.5	45.8
0°-40°	535.6	67.2
0°-60°	739.2	92.7
0°-90°	797.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	797.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	567	567	567	567	567	
5°	546	554	553	558	564	51
15°	452	465	482	511	531	126
25°	330	346	377	425	463	151
35°	201	219	262	324	375	124
45°	75	94	148	226	289	62
55°	37	38	58	132	191	33
65°	17	19	31	49	82	18
75°	9	14	14	13	13	9
85°	4	7	7	6	5	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	567.2	567.2	567.2	567.2	567.2
2.5°	559.9	566.4	562.1	563.5	564.3
5°	546.2	554.2	552.7	557.8	563.5
7.5°	527.5	536.8	539.7	549.8	559.2
10°	504.4	515.9	522.4	539.0	551.3
12.5°	479.1	491.4	503.7	526.0	542.6
15°	451.7	464.7	482.0	510.9	531.1
17.5°	422.8	437.3	458.2	492.8	516.6
20°	392.5	407.7	432.9	471.2	500.0
22.5°	361.5	377.4	405.5	448.1	482.0
25°	329.8	346.4	376.7	425.0	463.2
27.5°	297.3	314.6	349.2	400.5	442.3
30°	265.5	282.1	319.7	375.2	419.2
32.5°	233.1	250.4	290.8	349.2	396.9
35°	200.6	218.6	261.9	324.0	375.2
37.5°	167.4	186.9	232.3	299.5	353.6
40°	134.9	153.7	203.5	274.2	331.2
42.5°	103.2	123.4	176.1	248.9	310.3
45°	75.0	93.8	147.9	225.9	289.3
47.5°	56.3	67.8	121.9	204.2	266.3
50°	49.1	51.2	97.4	180.4	241.7
52.5°	42.6	44.0	75.8	154.4	217.2
55°	36.8	38.2	58.4	132.0	191.2
57.5°	31.0	32.5	46.9	110.4	161.6
60°	26.0	27.4	40.4	88.0	134.2
62.5°	21.6	22.4	36.1	67.1	107.5
65°	17.3	18.8	31.0	49.1	81.5
67.5°	14.4	15.9	25.3	33.9	57.0
70°	12.3	15.9	20.9	23.8	35.4
72.5°	10.1	14.4	17.3	16.6	16.6
75°	8.7	13.7	14.4	13.0	13.0
77.5°	7.2	12.3	11.5	10.8	10.1
80°	5.8	10.1	10.1	8.7	7.9
82.5°	5.1	7.9	7.9	7.9	6.5
85°	4.3	7.2	7.2	6.5	5.1
87.5°	2.9	5.8	6.5	5.8	3.6
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	5.33	6.67	5.69	6.98	7.29	14.42	15.76	14.79	16.07	16.39
	3H	6.37	7.56	6.75	7.89	8.25	14.92	16.11	15.30	16.44	16.81
	4H	6.89	7.99	7.29	8.34	8.73	14.94	16.04	15.34	16.40	16.78
	6H	7.34	8.36	7.75	8.73	9.12	14.94	15.95	15.35	16.32	16.72
	8H	7.53	8.49	7.96	8.89	9.29	14.93	15.90	15.36	16.29	16.69
	12H	7.74	8.66	8.18	9.05	9.48	14.93	15.85	15.37	16.24	16.67
4H	2H	6.42	7.53	6.82	7.88	8.26	14.31	15.42	14.71	15.77	16.15
	3H	7.69	8.60	8.10	9.00	9.40	14.89	15.79	15.30	16.20	16.60
	4H	8.39	9.20	8.83	9.62	10.07	14.94	15.75	15.37	16.17	16.61
	6H	9.03	9.73	9.49	10.17	10.64	14.99	15.69	15.45	16.13	16.60
	8H	9.27	9.93	9.74	10.37	10.84	15.01	15.66	15.47	16.11	16.58
	12H	9.55	10.13	10.03	10.61	11.08	15.04	15.62	15.53	16.10	16.57
8H	4H	8.82	9.47	9.29	9.92	10.39	14.89	15.54	15.35	15.99	16.46
	6H	9.70	10.23	10.20	10.73	11.21	14.98	15.51	15.48	16.01	16.49
	8H	10.10	10.58	10.62	11.10	11.59	15.04	15.52	15.56	16.04	16.53
	12H	10.58	11.01	11.09	11.50	12.07	15.14	15.57	15.65	16.06	16.63
12H	4H	8.86	9.44	9.35	9.92	10.40	14.86	15.44	15.34	15.92	16.39
	6H	9.81	10.29	10.33	10.81	11.30	14.96	15.44	15.48	15.95	16.45
	8H	10.33	10.75	10.84	11.25	11.82	15.06	15.49	15.58	15.98	16.55