

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: P1060928

Luminaire Tested: S124RDR-H575D935-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060928
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H575D935-X4F0-XX-UDD-WVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

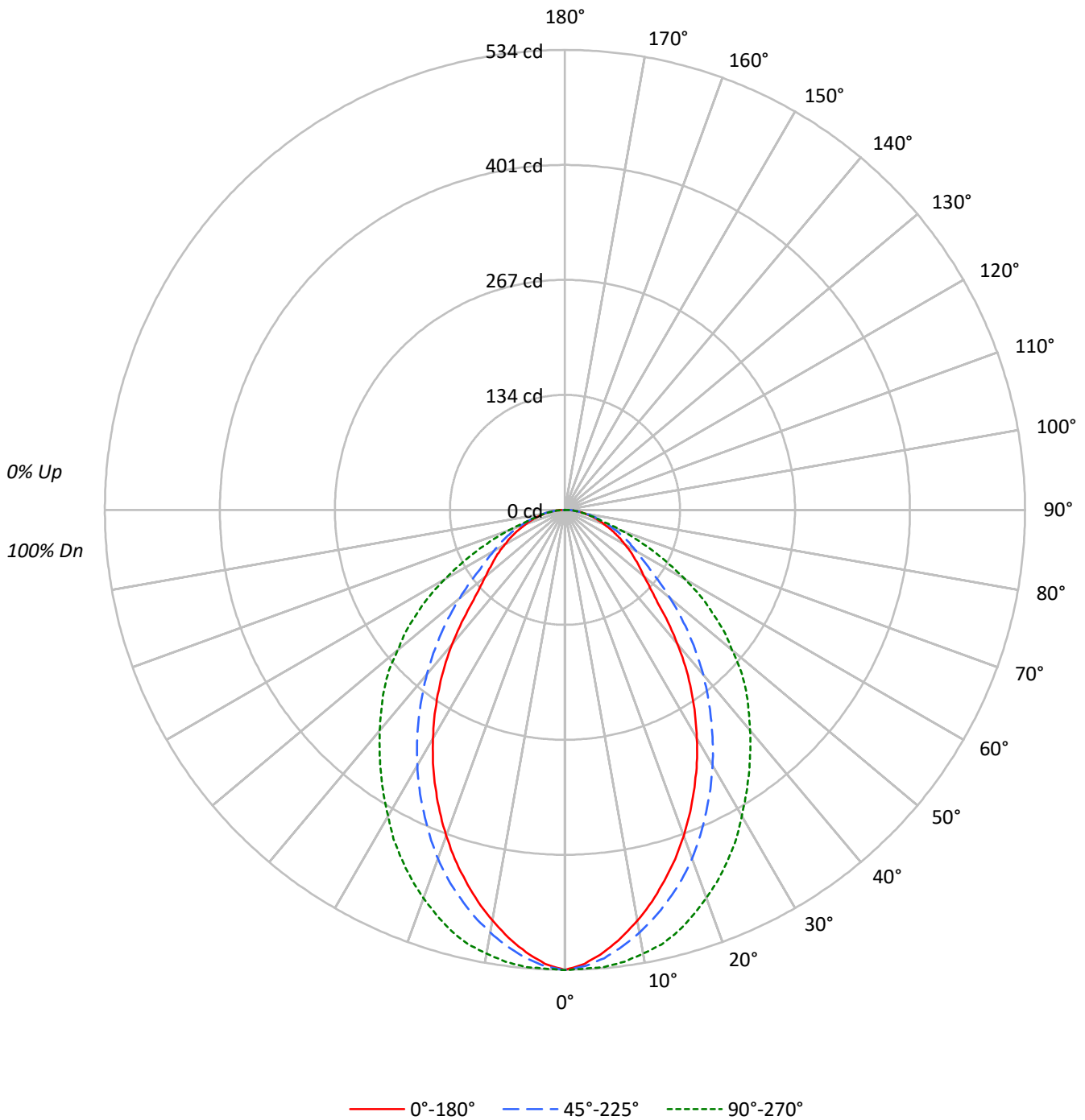
Lumens per Lamp: N/A
Luminaire Lumens: 972.6 lumens
Efficiency: N/A
Efficacy: 55.9 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87				87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75				75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65				65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57				57
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50				50
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45				45
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41				41
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37				37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34				34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31				31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4601	4601	4601
5°	4459	4517	4604
10°	4236	4358	4574
15°	3974	4169	4518
20°	3690	3951	4398
25°	3379	3682	4257
30°	3046	3408	4082
35°	2685	3108	3915
40°	2285	2801	3758
45°	1855	2476	3622
50°	1605	2130	3391
55°	1488	1808	3144
60°	1388	1629	2759
65°	1300	1528	2294
70°	1214	1410	1735
75°	1154	1304	1248
80°	1081	1195	1056
85°	998	1107	830

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3622 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.3	5.1
10°-20°	132.6	13.6
20°-30°	181.0	18.6
30°-40°	189.7	19.5
40°-50°	164.2	16.9
50°-60°	123.3	12.7
60°-70°	79.5	8.2
70°-80°	40.8	4.2
80°-90°	12.2	1.3
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°	363.0	37.3
0°-40°	552.6	56.8
0°-60°	840.1	86.4
0°-90°	972.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	972.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	534	534	534	534	534	
5°	516	524	522	526	533	48
15°	446	457	468	489	507	125
25°	356	369	388	418	448	163
35°	255	270	296	335	372	159
45°	152	168	203	253	297	120
55°	99	102	120	172	209	89
65°	64	65	75	91	113	63
75°	35	39	39	39	38	37
85°	10	12	11	11	8	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	534.3	534.3	534.3	534.3	534.3
2.5°	527.5	534.3	530.3	531.5	533.1
5°	515.8	523.6	522.5	526.4	532.6
7.5°	501.2	509.6	511.3	520.3	529.2
10°	484.4	493.9	498.4	511.9	523.1
12.5°	465.9	476.0	483.9	500.7	516.9
15°	445.8	457.0	467.6	488.9	506.8
17.5°	425.1	436.3	450.3	473.8	493.9
20°	402.7	415.0	431.2	455.9	479.9
22.5°	379.7	392.6	409.9	436.8	464.8
25°	355.6	369.1	387.5	417.8	448.0
27.5°	331.5	345.0	365.7	397.6	430.7
30°	306.3	320.3	342.7	377.5	410.5
32.5°	281.1	296.3	319.2	356.2	391.5
35°	255.4	269.9	295.7	334.9	372.4
37.5°	229.6	244.7	272.2	314.2	353.4
40°	203.3	219.0	249.2	293.5	334.3
42.5°	177.0	193.8	225.7	272.2	315.3
45°	152.3	168.0	203.3	253.1	297.4
47.5°	133.8	144.5	180.9	234.6	277.2
50°	119.8	125.4	159.0	214.5	253.1
52.5°	109.2	113.1	138.9	192.6	233.5
55°	99.1	102.5	120.4	171.9	209.4
57.5°	90.2	91.8	106.4	151.8	186.5
60°	80.6	82.3	94.6	129.9	160.2
62.5°	72.2	73.4	85.1	109.2	136.1
65°	63.8	65.0	75.0	90.7	112.6
67.5°	56.0	57.7	65.5	73.9	89.6
70°	48.2	51.5	56.0	59.9	68.9
72.5°	41.4	44.8	47.0	48.2	48.7
75°	34.7	38.6	39.2	38.6	37.5
77.5°	28.0	31.4	31.4	30.2	29.1
80°	21.8	24.6	24.1	23.0	21.3
82.5°	16.2	17.9	17.4	16.2	14.6
85°	10.1	11.8	11.2	10.6	8.4
87.5°	5.0	6.7	6.2	5.6	3.4
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	11.73	13.22	12.10	13.53	13.84	15.51	16.99	15.88	17.31	17.62
	3H	13.39	14.72	13.77	15.05	15.41	16.62	17.95	17.00	18.28	18.64
	4H	14.06	15.30	14.46	15.65	16.03	16.91	18.16	17.31	18.51	18.89
	6H	14.57	15.72	14.98	16.09	16.48	17.11	18.26	17.52	18.63	19.02
	8H	14.75	15.85	15.18	16.24	16.64	17.16	18.26	17.59	18.65	19.05
	12H	14.88	15.92	15.31	16.31	16.74	17.19	18.24	17.62	18.62	19.05
4H	2H	12.51	13.76	12.92	14.11	14.49	15.67	16.91	16.07	17.26	17.64
	3H	14.38	15.41	14.79	15.81	16.21	16.98	18.01	17.39	18.41	18.81
	4H	15.19	16.11	15.62	16.53	16.97	17.39	18.32	17.82	18.73	19.17
	6H	15.83	16.64	16.29	17.08	17.54	17.70	18.51	18.16	18.95	19.41
	8H	16.06	16.81	16.52	17.26	17.73	17.79	18.55	18.26	18.99	19.46
	12H	16.23	16.90	16.71	17.38	17.85	17.86	18.53	18.34	19.01	19.48
8H	4H	15.54	16.29	16.00	16.73	17.20	17.52	18.27	17.98	18.72	19.19
	6H	16.33	16.95	16.83	17.44	17.92	17.93	18.55	18.43	19.05	19.52
	8H	16.65	17.21	17.16	17.72	18.21	18.08	18.64	18.60	19.15	19.64
	12H	16.91	17.41	17.42	17.90	18.47	18.21	18.70	18.72	19.19	19.76
12H	4H	15.57	16.24	16.05	16.72	17.19	17.52	18.20	18.01	18.68	19.15
	6H	16.39	16.95	16.91	17.46	17.95	17.95	18.51	18.47	19.02	19.51
	8H	16.78	17.27	17.29	17.76	18.33	18.16	18.65	18.67	19.14	19.71