

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: P1061016

Luminaire Tested: S124RDR-H795D940-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1061016
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H795D940-X4F0-XX-UDD-SVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

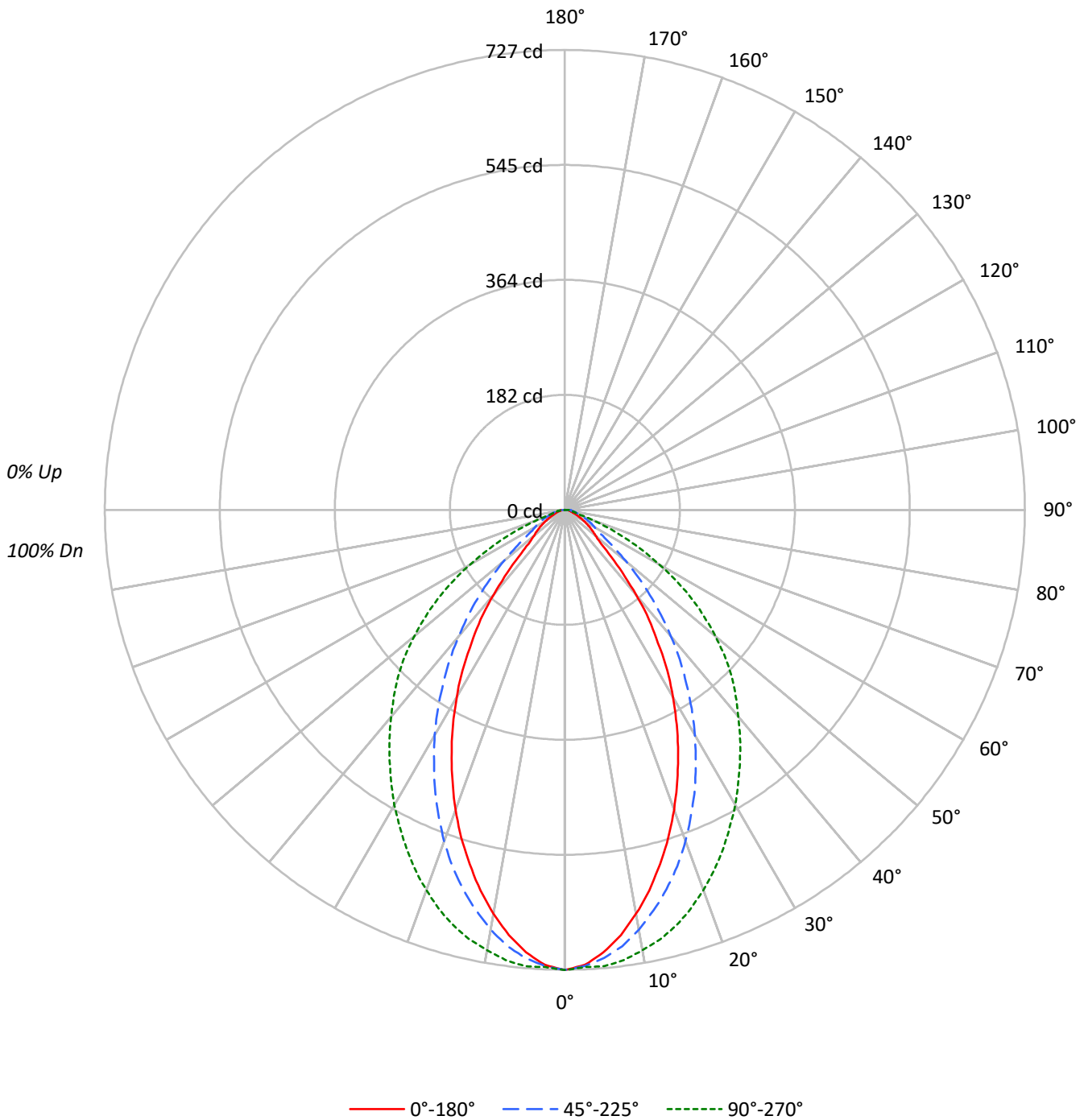
Lumens per Lamp: N/A
Luminaire Lumens: 1029.5 lumens
Efficiency: N/A
Efficacy: 43.8 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6264	6264	6264
5°	6070	6147	6259
10°	5670	5891	6182
15°	5173	5535	6064
20°	4625	5109	5861
25°	4023	4618	5621
30°	3394	4089	5357
35°	2700	3520	5074
40°	1964	2933	4797
45°	1187	2316	4542
50°	849	1677	4160
55°	719	1135	3672
60°	587	923	2967
65°	465	827	2135
70°	388	695	1125
75°	353	649	569
80°	362	645	565
85°	484	968	642

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4542 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.0	6.5
10°-20°	175.5	17.0
20°-30°	227.6	22.1
30°-40°	219.1	21.3
40°-50°	163.0	15.8
50°-60°	100.2	9.7
60°-70°	49.2	4.8
70°-80°	19.2	1.9
80°-90°	8.8	0.9
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°	470.0	45.7
0°-40°	689.1	66.9
0°-60°	952.3	92.5
0°-90°	1029.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1029.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	727	727	727	727	727	
5°	702	713	711	718	724	65
15°	580	599	621	658	680	162
25°	423	446	486	547	592	194
35°	257	281	335	418	483	160
45°	98	121	190	293	373	81
55°	48	50	76	172	245	43
65°	23	24	41	65	105	23
75°	11	19	20	18	17	12
85°	5	9	10	10	6	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	727.4	727.4	727.4	727.4	727.4
2.5°	720.1	728.2	721.7	722.5	723.3
5°	702.2	712.7	711.1	717.6	724.1
7.5°	677.8	690.0	695.7	708.7	717.6
10°	648.5	662.4	673.7	694.9	707.0
12.5°	616.0	632.3	648.5	677.0	695.7
15°	580.3	599.0	620.9	658.3	680.2
17.5°	543.7	562.4	590.8	633.9	661.5
20°	504.7	525.0	557.5	605.5	639.6
22.5°	464.1	486.0	521.8	576.2	616.8
25°	423.4	446.2	486.0	546.9	591.6
27.5°	382.8	404.7	447.8	516.1	564.8
30°	341.3	364.1	411.2	482.7	538.8
32.5°	301.5	322.6	373.0	451.0	510.4
35°	256.8	281.2	334.8	418.5	482.7
37.5°	218.6	240.6	298.3	386.0	455.1
40°	174.7	199.1	260.9	354.3	426.7
42.5°	134.1	158.5	225.1	322.6	399.8
45°	97.5	121.1	190.2	293.4	373.0
47.5°	74.0	87.8	156.0	264.9	343.0
50°	63.4	67.5	125.2	234.1	310.5
52.5°	56.1	57.7	97.5	203.2	277.9
55°	47.9	49.6	75.6	172.3	244.6
57.5°	40.6	41.4	61.0	143.0	208.9
60°	34.1	34.9	53.6	114.6	172.3
62.5°	28.4	29.3	47.9	88.6	137.3
65°	22.8	24.4	40.6	65.0	104.8
67.5°	18.7	21.9	34.1	45.5	73.1
70°	15.4	21.1	27.6	31.7	44.7
72.5°	13.0	19.5	23.6	22.8	21.9
75°	10.6	18.7	19.5	17.9	17.1
77.5°	8.9	16.3	16.3	14.6	13.8
80°	7.3	13.0	13.0	13.0	11.4
82.5°	6.5	10.6	11.4	11.4	8.9
85°	4.9	8.9	9.8	9.8	6.5
87.5°	3.3	8.1	8.9	8.1	4.9
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	6.15	7.49	6.52	7.81	8.12	15.33	16.67	15.69	16.98	17.30
	3H	7.26	8.45	7.64	8.78	9.15	15.83	17.02	16.21	17.35	17.72
	4H	7.78	8.89	8.18	9.24	9.63	15.85	16.96	16.26	17.31	17.70
	6H	8.22	9.24	8.63	9.61	10.00	15.86	16.88	16.28	17.25	17.65
	8H	8.41	9.37	8.84	9.76	10.17	15.87	16.83	16.30	17.23	17.63
	12H	8.59	9.51	9.02	9.90	10.33	15.87	16.79	16.30	17.18	17.61
4H	2H	7.30	8.41	7.70	8.76	9.14	15.22	16.33	15.62	16.68	17.06
	3H	8.64	9.55	9.05	9.95	10.35	15.81	16.72	16.22	17.12	17.52
	4H	9.37	10.19	9.81	10.61	11.05	15.87	16.68	16.30	17.10	17.54
	6H	9.99	10.69	10.45	11.13	11.60	15.94	16.64	16.40	17.09	17.56
	8H	10.23	10.88	10.70	11.33	11.80	15.97	16.63	16.44	17.07	17.55
	12H	10.47	11.05	10.95	11.53	12.00	16.01	16.59	16.50	17.08	17.55
8H	4H	9.84	10.50	10.31	10.95	11.42	15.82	16.48	16.29	16.93	17.40
	6H	10.69	11.23	11.20	11.73	12.21	15.95	16.49	16.45	16.99	17.47
	8H	11.10	11.59	11.62	12.10	12.59	16.04	16.52	16.56	17.03	17.53
	12H	11.53	11.95	12.04	12.45	13.02	16.16	16.58	16.67	17.08	17.65
12H	4H	9.90	10.48	10.38	10.96	11.44	15.80	16.38	16.28	16.86	17.33
	6H	10.83	11.31	11.35	11.83	12.32	15.93	16.42	16.45	16.93	17.42
	8H	11.35	11.78	11.87	12.27	12.84	16.07	16.50	16.58	16.99	17.56