

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: P1060769

Luminaire Tested: S124RDR-H1195D940-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060769
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-H1195D940-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: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

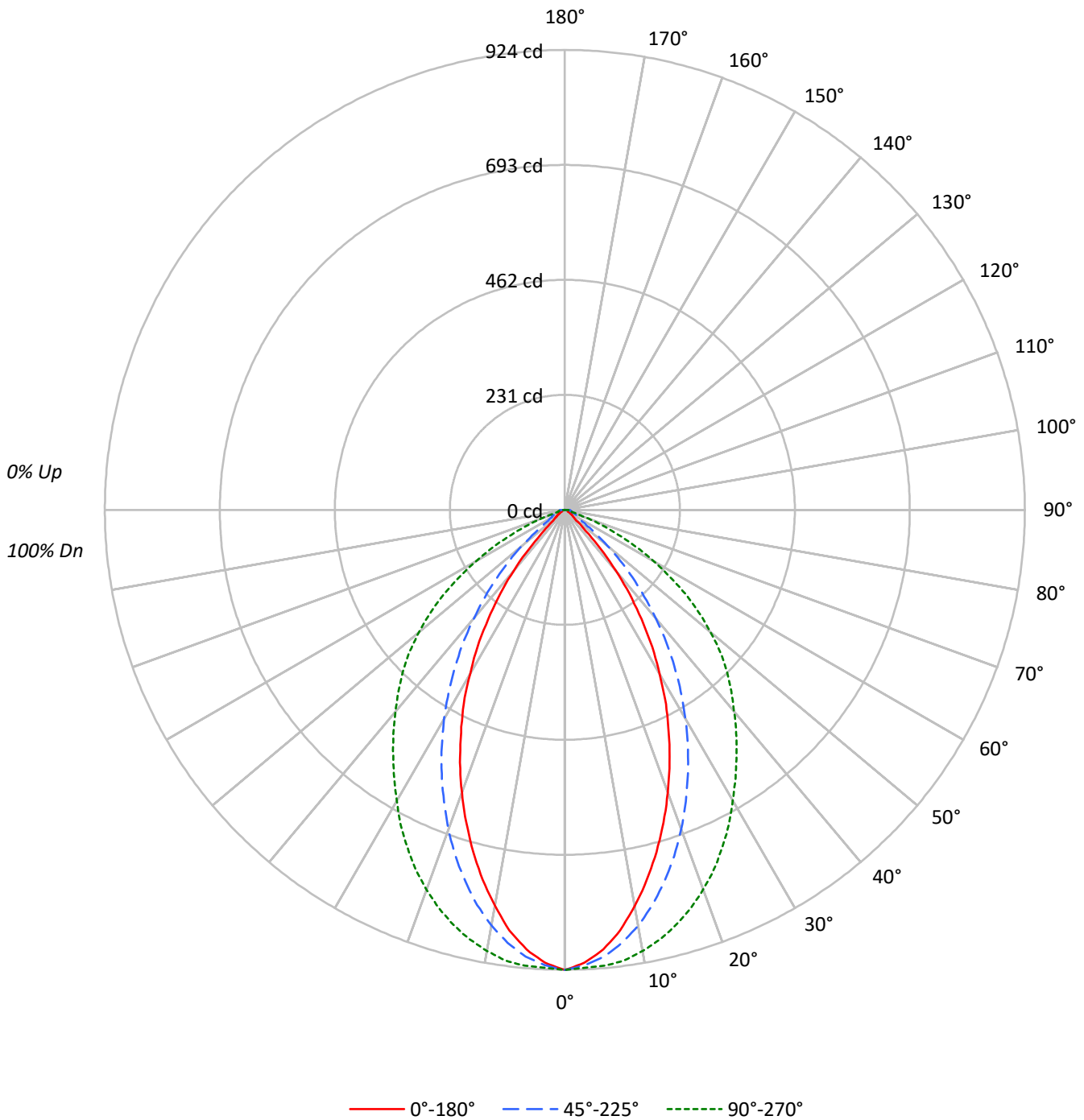
Lumens per Lamp: N/A
Luminaire Lumens: 1160.1 lumens
Efficiency: N/A
Efficacy: 31.8 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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	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	103	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°	7960	7960	7960
5°	7663	7790	7948
10°	7066	7419	7869
15°	6342	6888	7695
20°	5542	6261	7439
25°	4688	5561	7108
30°	3786	4821	6708
35°	2818	4028	6320
40°	1790	3194	5945
45°	716	2341	5607
50°	312	1492	5117
55°	239	772	4466
60°	169	527	3543
65°	124	524	2421
70°	123	463	1110
75°	163	489	449
80°	243	545	486
85°	484	968	721

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5607 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.6	7.3
10°-20°	218.3	18.8
20°-30°	275.7	23.8
30°-40°	253.2	21.8
40°-50°	172.6	14.9
50°-60°	93.6	8.1
60°-70°	39.7	3.4
70°-80°	13.7	1.2
80°-90°	8.7	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°	578.5	49.9
0°-40°	831.7	71.7
0°-60°	1098.0	94.6
0°-90°	1160.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1160.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	924	924	924	924	924	
5°	886	900	901	908	920	82
15°	711	735	773	828	863	198
25°	493	525	585	676	748	226
35°	268	304	383	503	601	167
45°	59	94	192	340	460	54
55°	16	17	51	187	298	14
65°	6	7	26	59	119	6
75°	5	14	15	14	14	5
85°	5	10	10	10	7	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	924.4	924.4	924.4	924.4	924.4
2.5°	910.9	922.0	915.8	918.3	920.7
5°	886.5	899.9	901.2	908.5	919.5
7.5°	852.2	868.1	877.9	896.3	913.4
10°	808.1	827.7	848.5	877.9	899.9
12.5°	761.6	782.4	813.0	854.6	884.0
15°	711.4	734.6	772.6	827.7	863.2
17.5°	658.7	684.4	729.7	794.6	839.9
20°	604.8	633.0	683.2	756.7	811.8
22.5°	549.8	579.1	634.2	717.5	782.4
25°	493.4	525.3	585.3	675.9	748.1
27.5°	439.6	468.9	535.1	634.2	713.8
30°	380.8	413.8	484.9	591.4	674.6
32.5°	326.9	358.7	433.4	547.3	637.9
35°	268.1	303.6	383.2	503.2	601.2
37.5°	213.0	247.3	334.3	461.6	565.7
40°	159.2	194.7	284.1	420.0	528.9
42.5°	106.5	144.5	236.3	377.1	494.7
45°	58.8	94.3	192.2	340.4	460.4
47.5°	30.6	51.4	150.6	303.6	423.6
50°	23.3	28.2	111.4	263.2	382.0
52.5°	19.6	20.8	75.9	222.8	340.4
55°	15.9	17.1	51.4	187.3	297.5
57.5°	12.2	13.5	36.7	153.0	249.8
60°	9.8	11.0	30.6	117.5	205.7
62.5°	7.3	8.6	29.4	86.9	161.6
65°	6.1	7.3	25.7	58.8	118.8
67.5°	4.9	7.3	22.0	38.0	79.6
70°	4.9	9.8	18.4	24.5	44.1
72.5°	4.9	11.0	15.9	15.9	15.9
75°	4.9	13.5	14.7	13.5	13.5
77.5°	4.9	12.2	12.2	12.2	12.2
80°	4.9	11.0	11.0	11.0	9.8
82.5°	4.9	9.8	11.0	11.0	8.6
85°	4.9	9.8	9.8	9.8	7.3
87.5°	3.7	9.8	9.8	9.8	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	0.00	0.00	0.00	0.00	0.00	15.65	16.92	16.01	17.24	17.55
	3H	0.00	0.29	0.00	0.63	0.99	16.00	17.13	16.38	17.46	17.83
	4H	0.55	1.60	0.96	1.95	2.34	15.97	17.02	16.37	17.37	17.76
	6H	1.92	2.88	2.33	3.25	3.64	15.95	16.91	16.36	17.28	17.67
	8H	2.60	3.51	3.03	3.90	4.30	15.94	16.85	16.37	17.24	17.64
	12H	3.40	4.27	3.83	4.65	5.08	15.93	16.80	16.37	17.19	17.62
4H	2H	1.35	2.40	1.75	2.75	3.13	15.45	16.50	15.85	16.85	17.24
	3H	2.77	3.62	3.18	4.03	4.43	15.85	16.70	16.26	17.11	17.51
	4H	4.22	4.99	4.66	5.41	5.85	15.83	16.59	16.26	17.01	17.45
	6H	5.46	6.12	5.93	6.57	7.04	15.84	16.50	16.31	16.95	17.42
	8H	6.03	6.65	6.50	7.10	7.57	15.85	16.47	16.32	16.92	17.39
	12H	6.71	7.25	7.20	7.73	8.21	15.89	16.43	16.38	16.92	17.39
8H	4H	5.29	5.91	5.76	6.36	6.83	15.73	16.34	16.20	16.79	17.26
	6H	6.90	7.40	7.40	7.90	8.38	15.78	16.28	16.28	16.78	17.26
	8H	7.74	8.19	8.26	8.70	9.20	15.83	16.29	16.36	16.80	17.29
	12H	8.70	9.10	9.22	9.60	10.17	15.95	16.35	16.47	16.84	17.42
12H	4H	5.48	6.02	5.97	6.51	6.98	15.69	16.23	16.18	16.72	17.19
	6H	7.25	7.70	7.77	8.21	8.71	15.74	16.20	16.27	16.71	17.21
	8H	8.27	8.67	8.78	9.16	9.74	15.85	16.25	16.36	16.74	17.32