

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: P1061015

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1061015
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-H795D940-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: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

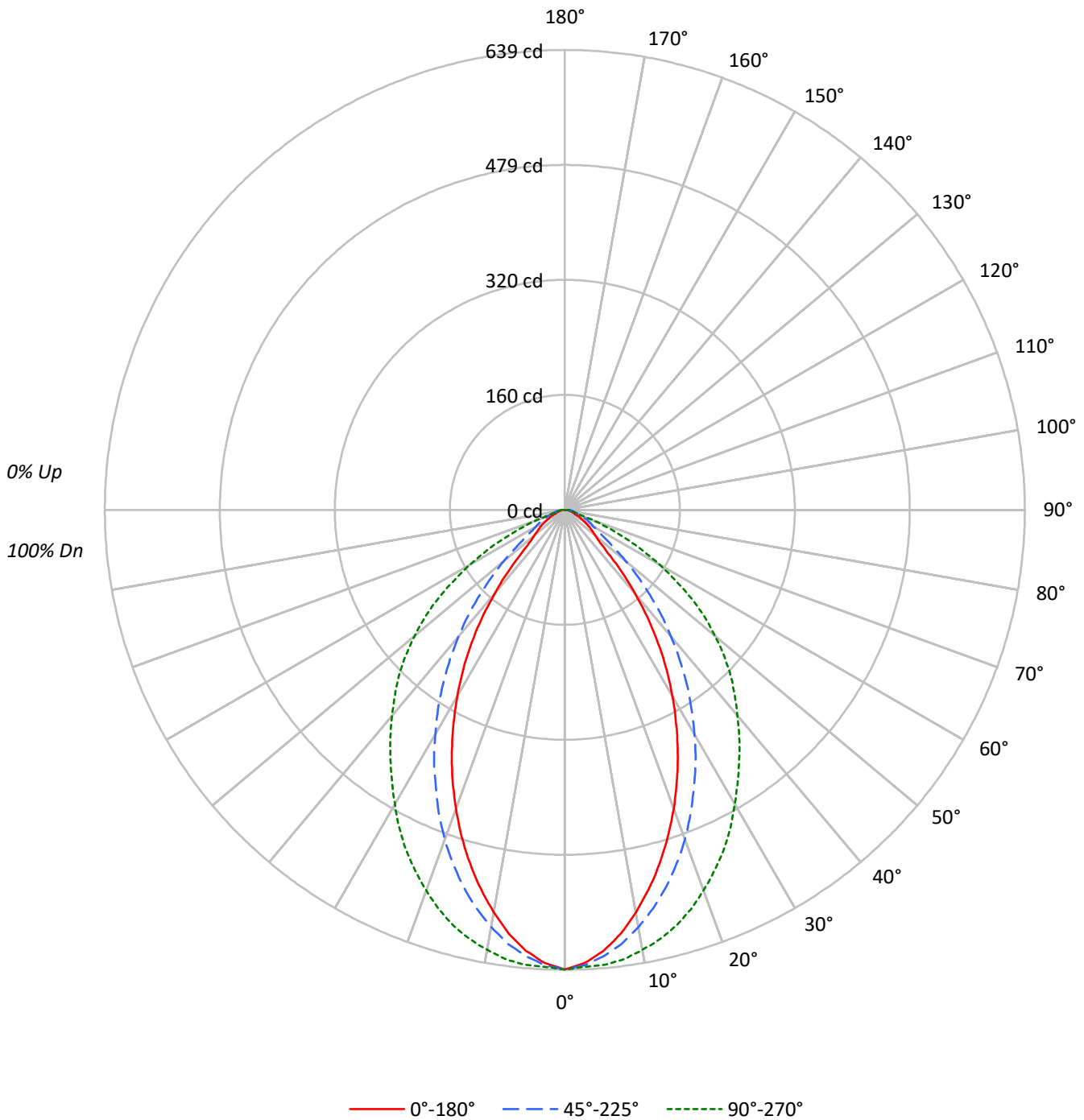
Lumens per Lamp: N/A
Luminaire Lumens: 898.1 lumens
Efficiency: N/A
Efficacy: 38.2 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	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	49	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°	5500	5500	5500
5°	5317	5380	5485
10°	4967	5144	5428
15°	4535	4839	5331
20°	4050	4467	5160
25°	3528	4030	4957
30°	2973	3580	4694
35°	2375	3101	4441
40°	1708	2575	4193
45°	1029	2029	3968
50°	741	1470	3647
55°	622	988	3232
60°	505	784	2602
65°	397	711	1870
70°	347	594	1002
75°	326	542	486
80°	322	565	441
85°	484	800	563

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3968 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.6	6.5
10°-20°	153.6	17.1
20°-30°	199.3	22.2
30°-40°	191.6	21.3
40°-50°	142.2	15.8
50°-60°	87.1	9.7
60°-70°	42.3	4.7
70°-80°	16.1	1.8
80°-90°	7.2	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°	411.6	45.8
0°-40°	603.2	67.2
0°-60°	832.4	92.7
0°-90°	898.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	898.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	639	639	639	639	639	
5°	615	624	622	628	635	57
15°	509	523	543	575	598	142
25°	371	390	424	479	522	170
35°	226	246	295	365	422	140
45°	84	106	167	254	326	70
55°	41	43	66	149	215	37
65°	20	21	35	55	92	20
75°	10	15	16	15	15	10
85°	5	8	8	7	6	5
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	638.7	638.7	638.7	638.7	638.7
2.5°	630.5	637.9	633.0	634.6	635.4
5°	615.1	624.0	622.4	628.1	634.6
7.5°	594.0	604.5	607.8	619.2	629.7
10°	568.0	581.0	588.3	607.0	620.8
12.5°	539.5	553.3	567.2	592.3	611.0
15°	508.7	523.3	542.8	575.3	598.0
17.5°	476.2	492.4	516.0	555.0	581.8
20°	442.0	459.1	487.5	530.6	563.1
22.5°	407.1	425.0	456.7	504.6	542.8
25°	371.3	390.0	424.2	478.6	521.7
27.5°	334.8	354.3	393.3	451.0	498.1
30°	299.0	317.7	360.0	422.5	472.1
32.5°	262.5	282.0	327.5	393.3	446.9
35°	225.9	246.2	295.0	364.8	422.5
37.5°	188.5	210.4	261.6	337.2	398.1
40°	151.9	173.1	229.1	308.8	373.0
42.5°	116.2	138.9	198.3	280.3	349.4
45°	84.5	105.6	166.6	254.3	325.8
47.5°	63.4	76.4	137.3	230.0	299.8
50°	55.3	57.7	109.7	203.1	272.2
52.5°	47.9	49.6	85.3	173.9	244.6
55°	41.4	43.1	65.8	148.7	215.3
57.5°	34.9	36.6	52.8	124.3	182.0
60°	29.3	30.9	45.5	99.1	151.1
62.5°	24.4	25.2	40.6	75.6	121.1
65°	19.5	21.1	34.9	55.3	91.8
67.5°	16.3	17.9	28.4	38.2	64.2
70°	13.8	17.9	23.6	26.8	39.8
72.5°	11.4	16.3	19.5	18.7	18.7
75°	9.8	15.4	16.3	14.6	14.6
77.5°	8.1	13.8	13.0	12.2	11.4
80°	6.5	11.4	11.4	9.8	8.9
82.5°	5.7	8.9	8.9	8.9	7.3
85°	4.9	8.1	8.1	7.3	5.7
87.5°	3.3	6.5	7.3	6.5	4.1
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	5.74	7.08	6.11	7.39	7.71	14.83	16.17	15.20	16.49	16.80
	3H	6.79	7.97	7.17	8.30	8.67	15.34	16.52	15.72	16.85	17.22
	4H	7.30	8.41	7.70	8.76	9.14	15.35	16.46	15.75	16.81	17.19
	6H	7.75	8.77	8.17	9.14	9.53	15.35	16.37	15.76	16.74	17.13
	8H	7.94	8.90	8.37	9.30	9.70	15.34	16.31	15.77	16.70	17.10
	12H	8.16	9.08	8.59	9.46	9.89	15.34	16.27	15.78	16.65	17.08
4H	2H	6.83	7.94	7.23	8.29	8.67	14.72	15.83	15.13	16.18	16.56
	3H	8.10	9.01	8.52	9.41	9.82	15.30	16.21	15.71	16.61	17.01
	4H	8.81	9.62	9.24	10.04	10.48	15.35	16.16	15.78	16.58	17.02
	6H	9.44	10.14	9.90	10.58	11.05	15.40	16.10	15.86	16.55	17.01
	8H	9.68	10.34	10.15	10.78	11.25	15.42	16.07	15.89	16.52	16.99
	12H	9.96	10.54	10.45	11.02	11.49	15.45	16.03	15.94	16.51	16.99
8H	4H	9.24	9.89	9.70	10.34	10.81	15.30	15.95	15.77	16.40	16.87
	6H	10.11	10.65	10.61	11.14	11.62	15.39	15.93	15.89	16.42	16.90
	8H	10.52	11.00	11.04	11.51	12.00	15.45	15.93	15.97	16.45	16.94
	12H	10.99	11.42	11.51	11.91	12.49	15.55	15.98	16.07	16.47	17.04
12H	4H	9.28	9.86	9.76	10.34	10.81	15.27	15.85	15.76	16.33	16.80
	6H	10.22	10.71	10.75	11.22	11.71	15.37	15.85	15.89	16.37	16.86
	8H	10.74	11.16	11.25	11.66	12.23	15.48	15.90	15.99	16.40	16.97