

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: P1058591

Luminaire Tested: S122RDR-H865D950-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058591
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H865D950-X4F0-XX-UDD-BVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

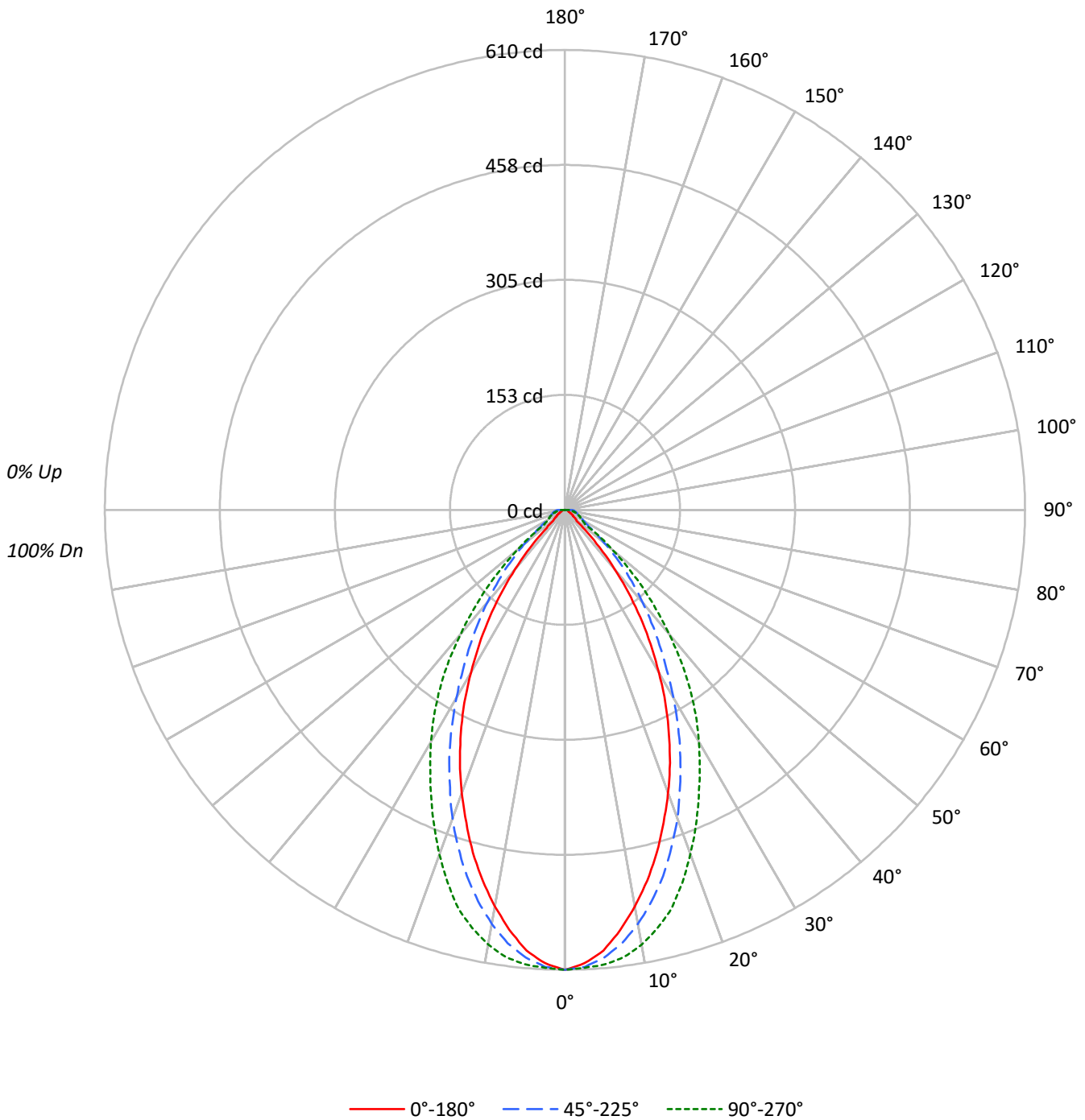
Lumens per Lamp: N/A
Luminaire Lumens: 657.7 lumens
Efficiency: N/A
Efficacy: 21.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90				
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81				
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74				
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67				
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61				
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57				
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52				
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48				
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45				
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11258	11258	11258
5°	10867	11042	11214
10°	10007	10446	10971
15°	8998	9601	10450
20°	7849	8560	9547
25°	6639	7376	8543
30°	5303	6126	7570
35°	3922	4924	6503
40°	2479	3856	5181
45°	976	2897	3813
50°	502	1946	2348
55°	415	1277	1052
60°	303	1037	948
65°	253	969	969
70°	254	1009	944
75°	335	1169	998
80°	499	1488	1116
85°	741	2477	1482

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 4949 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.8	8.5
10°-20°	140.9	21.4
20°-30°	167.5	25.5
30°-40°	139.3	21.2
40°-50°	77.8	11.8
50°-60°	31.4	4.8
60°-70°	20.1	3.1
70°-80°	15.1	2.3
80°-90°	9.6	1.5
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°	364.2	55.4
0°-40°	503.6	76.6
0°-60°	612.8	93.2
0°-90°	657.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	657.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	610	610	610	610	610	
5°	587	597	596	601	605	54
15°	471	485	503	528	547	131
25°	326	339	362	390	420	149
35°	174	190	219	255	289	108
45°	37	63	111	130	146	35
55°	13	27	40	39	33	11
65°	6	23	22	21	22	6
75°	5	16	16	15	14	5
85°	4	10	12	10	7	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	610.1	610.1	610.1	610.1	610.1
2.5°	601.9	611.3	606.6	606.6	607.8
5°	586.7	597.2	596.1	600.7	605.4
7.5°	562.2	573.9	579.7	590.2	598.4
10°	534.1	547.0	557.5	573.9	585.5
12.5°	503.7	516.6	531.8	552.8	568.0
15°	471.0	485.0	502.6	528.3	547.0
17.5°	434.8	450.0	469.8	497.9	517.8
20°	399.7	414.9	435.9	464.0	486.2
22.5°	363.5	376.3	398.5	426.6	453.5
25°	326.1	338.9	362.3	390.4	419.6
27.5°	288.7	301.5	324.9	354.1	386.9
30°	248.9	263.0	287.5	320.2	355.3
32.5°	211.5	225.6	251.3	287.5	322.6
35°	174.1	190.5	218.6	254.8	288.7
37.5°	137.9	156.6	188.2	222.1	252.5
40°	102.9	122.7	160.1	189.3	215.1
42.5°	67.8	91.2	134.4	159.0	178.8
45°	37.4	63.1	111.0	129.7	146.1
47.5°	21.0	40.9	87.7	102.9	112.2
50°	17.5	30.4	67.8	78.3	81.8
52.5°	14.0	28.1	51.4	57.3	54.9
55°	12.9	26.9	39.7	38.6	32.7
57.5°	10.5	26.9	31.6	28.1	28.1
60°	8.2	25.7	28.1	24.5	25.7
62.5°	7.0	24.5	25.7	23.4	23.4
65°	5.8	23.4	22.2	21.0	22.2
67.5°	4.7	21.0	21.0	19.9	19.9
70°	4.7	19.9	18.7	17.5	17.5
72.5°	4.7	17.5	17.5	16.4	16.4
75°	4.7	16.4	16.4	15.2	14.0
77.5°	4.7	14.0	15.2	14.0	12.9
80°	4.7	12.9	14.0	12.9	10.5
82.5°	4.7	11.7	12.9	11.7	9.4
85°	3.5	10.5	11.7	10.5	7.0
87.5°	3.5	10.5	11.7	9.4	5.8
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	6.78	8.00	7.15	8.31	8.63	7.86	9.08	8.23	9.39	9.71
	3H	8.11	9.20	8.49	9.53	9.89	9.89	10.97	10.27	11.30	11.67
	4H	8.69	9.70	9.09	10.05	10.44	10.84	11.85	11.25	12.20	12.59
	6H	9.26	10.19	9.67	10.56	10.95	11.79	12.72	12.20	13.09	13.48
	8H	9.59	10.46	10.02	10.86	11.26	12.24	13.12	12.67	13.51	13.92
	12H	9.89	10.73	10.32	11.12	11.55	12.66	13.50	13.10	13.89	14.32
4H	2H	7.74	8.75	8.15	9.10	9.49	8.54	9.55	8.94	9.90	10.28
	3H	9.77	10.60	10.18	11.01	11.41	10.82	11.65	11.23	12.05	12.46
	4H	10.85	11.60	11.29	12.02	12.47	11.96	12.71	12.40	13.13	13.58
	6H	11.73	12.37	12.19	12.82	13.29	13.13	13.78	13.60	14.23	14.70
	8H	12.14	12.75	12.61	13.19	13.67	13.70	14.30	14.17	14.75	15.22
	12H	12.52	13.05	13.01	13.54	14.01	14.24	14.78	14.73	15.26	15.74
8H	4H	11.62	12.23	12.09	12.68	13.15	12.51	13.12	12.98	13.57	14.04
	6H	12.97	13.46	13.47	13.96	14.44	13.97	14.47	14.47	14.96	15.45
	8H	13.68	14.13	14.21	14.65	15.14	14.74	15.18	15.26	15.70	16.19
	12H	14.37	14.77	14.89	15.26	15.83	15.52	15.91	16.04	16.41	16.98
12H	4H	11.78	12.31	12.27	12.80	13.27	12.62	13.16	13.11	13.64	14.11
	6H	13.29	13.73	13.81	14.25	14.74	14.20	14.64	14.72	15.16	15.65
	8H	14.19	14.59	14.71	15.08	15.65	15.11	15.50	15.62	15.99	16.57