

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: P1058582

Luminaire Tested: S122RDR-H865D940-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058582
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-H865D940-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: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

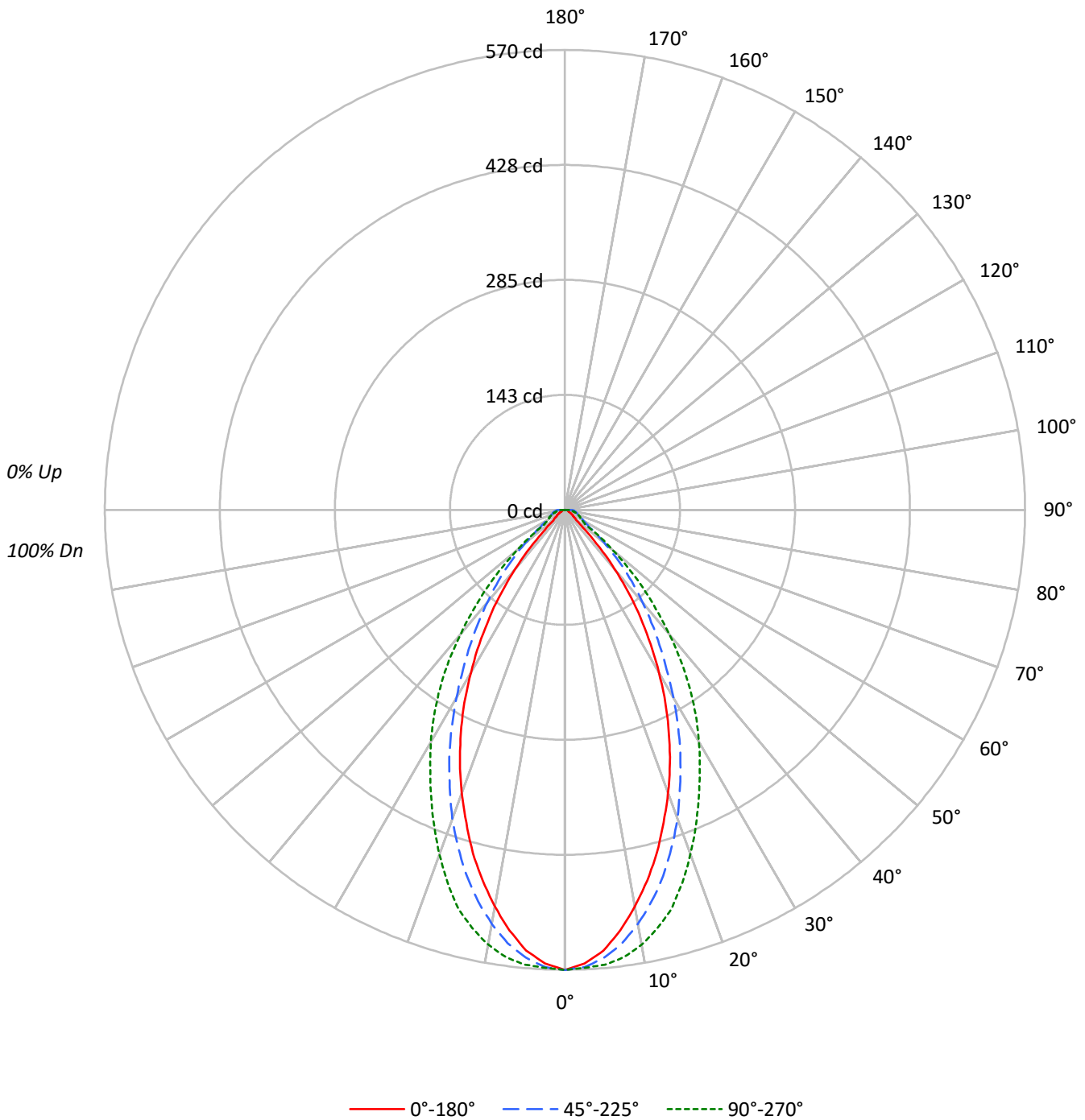
Lumens per Lamp: N/A
Luminaire Lumens: 614.7 lumens
Efficiency: N/A
Efficacy: 19.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	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°	10523	10523	10523
5°	10158	10319	10482
10°	9354	9764	10255
15°	8411	8975	9768
20°	7336	8002	8925
25°	6206	6896	7985
30°	4958	5725	7076
35°	3667	4602	6078
40°	2315	3606	4842
45°	913	2709	3565
50°	471	1820	2196
55°	386	1194	984
60°	280	967	886
65°	240	908	908
70°	237	944	885
75°	314	1091	934
80°	468	1392	1041
85°	699	2308	1397

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 4611 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.2	8.5
10°-20°	131.7	21.4
20°-30°	156.6	25.5
30°-40°	130.2	21.2
40°-50°	72.7	11.8
50°-60°	29.4	4.8
60°-70°	18.8	3.1
70°-80°	14.1	2.3
80°-90°	9.0	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°	340.5	55.4
0°-40°	470.7	76.6
0°-60°	572.8	93.2
0°-90°	614.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	614.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	570	570	570	570	570	
5°	548	558	557	562	566	51
15°	440	453	470	494	511	122
25°	305	317	339	365	392	139
35°	163	178	204	238	270	101
45°	35	59	104	121	137	33
55°	12	25	37	36	31	10
65°	6	22	21	20	21	6
75°	4	15	15	14	13	5
85°	3	10	11	10	7	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	570.3	570.3	570.3	570.3	570.3
2.5°	562.6	571.4	567.0	567.0	568.1
5°	548.4	558.2	557.1	561.5	565.9
7.5°	525.5	536.4	541.9	551.7	559.3
10°	499.2	511.3	521.1	536.4	547.3
12.5°	470.8	482.9	497.1	516.7	530.9
15°	440.3	453.4	469.8	493.8	511.3
17.5°	406.4	420.6	439.2	465.4	484.0
20°	373.6	387.8	407.5	433.7	454.5
22.5°	339.8	351.8	372.5	398.7	423.9
25°	304.8	316.8	338.7	364.9	392.2
27.5°	269.8	281.9	303.7	331.0	361.6
30°	232.7	245.8	268.7	299.3	332.1
32.5°	197.7	210.8	234.9	268.7	301.5
35°	162.8	178.1	204.3	238.2	269.8
37.5°	128.9	146.4	175.9	207.6	236.0
40°	96.1	114.7	149.7	177.0	201.0
42.5°	63.4	85.2	125.6	148.6	167.1
45°	35.0	59.0	103.8	121.3	136.6
47.5°	19.7	38.2	81.9	96.1	104.9
50°	16.4	28.4	63.4	73.2	76.5
52.5°	13.1	26.2	48.1	53.5	51.3
55°	12.0	25.1	37.1	36.1	30.6
57.5°	9.8	25.1	29.5	26.2	26.2
60°	7.6	24.0	26.2	22.9	24.0
62.5°	6.6	22.9	24.0	21.8	21.8
65°	5.5	21.8	20.8	19.7	20.8
67.5°	4.4	19.7	19.7	18.6	18.6
70°	4.4	18.6	17.5	16.4	16.4
72.5°	4.4	16.4	16.4	15.3	15.3
75°	4.4	15.3	15.3	14.2	13.1
77.5°	4.4	13.1	14.2	13.1	12.0
80°	4.4	12.0	13.1	12.0	9.8
82.5°	4.4	10.9	12.0	10.9	8.7
85°	3.3	9.8	10.9	9.8	6.6
87.5°	3.3	9.8	10.9	8.7	5.5
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	6.53	7.75	6.90	8.07	8.38	7.61	8.83	7.98	9.14	9.46
	3H	7.88	8.96	8.26	9.29	9.66	9.65	10.73	10.03	11.06	11.43
	4H	8.45	9.46	8.86	9.81	10.20	10.60	11.61	11.01	11.96	12.35
	6H	9.02	9.95	9.44	10.32	10.72	11.55	12.48	11.96	12.85	13.24
	8H	9.35	10.23	9.78	10.62	11.03	11.99	12.87	12.42	13.26	13.67
	12H	9.66	10.50	10.09	10.88	11.31	12.42	13.26	12.85	13.64	14.07
4H	2H	7.50	8.51	7.91	8.87	9.25	8.29	9.30	8.70	9.66	10.04
	3H	9.54	10.37	9.95	10.78	11.18	10.58	11.41	10.99	11.82	12.22
	4H	10.62	11.37	11.05	11.79	12.23	11.73	12.48	12.16	12.90	13.34
	6H	11.49	12.14	11.96	12.59	13.05	12.89	13.54	13.36	13.99	14.46
	8H	11.90	12.51	12.37	12.96	13.43	13.45	14.06	13.92	14.51	14.98
	12H	12.28	12.82	12.77	13.30	13.78	14.00	14.53	14.49	15.02	15.49
8H	4H	11.39	11.99	11.86	12.44	12.91	12.28	12.88	12.75	13.33	13.80
	6H	12.73	13.22	13.23	13.72	14.20	13.73	14.22	14.23	14.72	15.20
	8H	13.44	13.89	13.97	14.40	14.90	14.49	14.93	15.01	15.45	15.94
	12H	14.13	14.53	14.65	15.02	15.59	15.28	15.67	15.79	16.17	16.74
12H	4H	11.54	12.08	12.03	12.56	13.04	12.39	12.92	12.87	13.40	13.88
	6H	13.05	13.49	13.57	14.01	14.50	13.95	14.40	14.48	14.92	15.41
	8H	13.95	14.34	14.46	14.84	15.41	14.86	15.25	15.37	15.75	16.32