

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: P1058581

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058581
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-21)
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-B
Description: DEFINE 2 BLACK 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

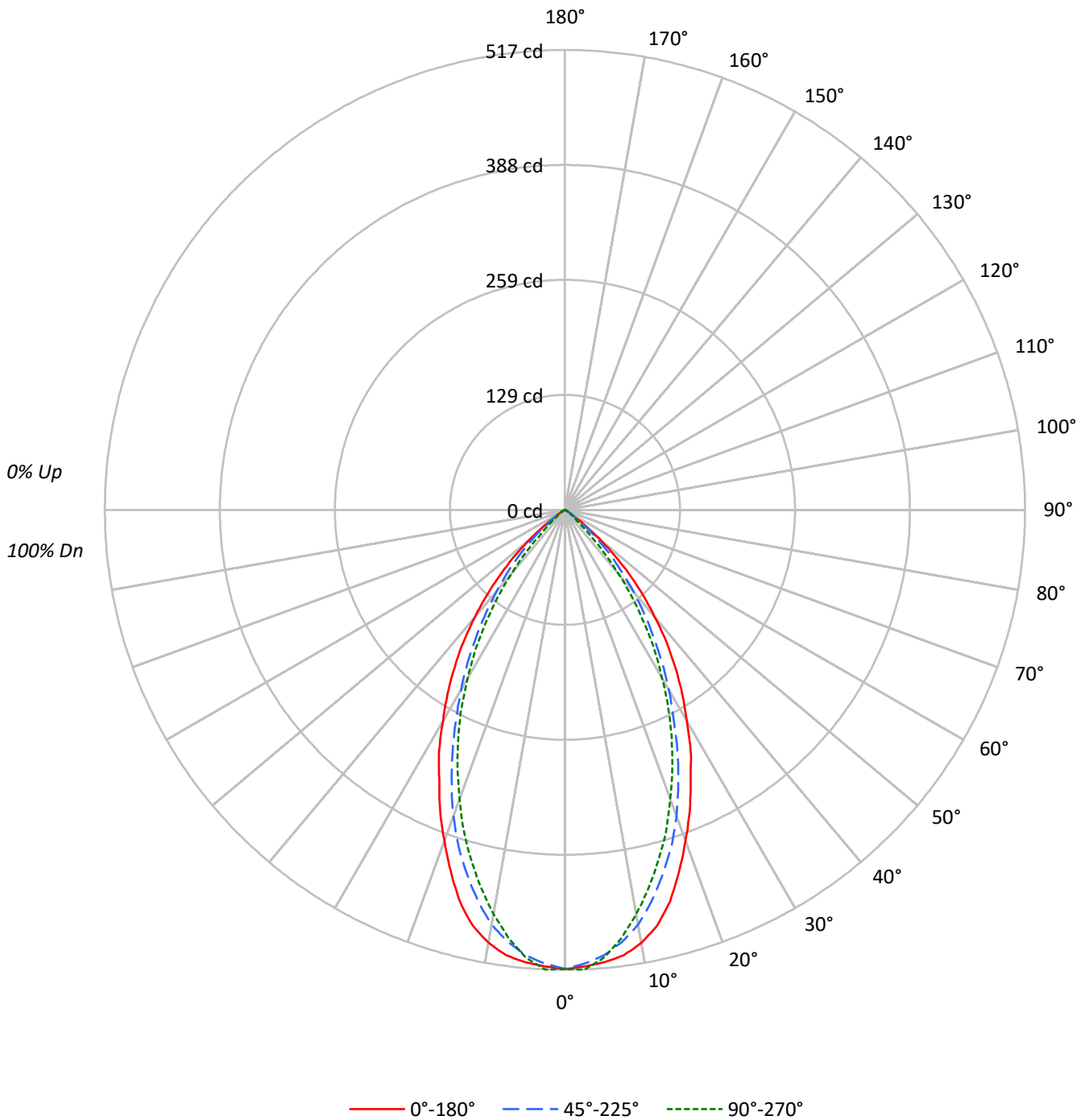
Lumens per Lamp: N/A
Luminaire Lumens: 485.2 lumens
Efficiency: N/A
Efficacy: 15.6 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 0.8 / 0.88
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	113	110	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95	93
2	107	102	98	94	105	100	97	93	97	94	91	94	92	89	91	89	87	86
3	101	95	90	85	99	93	89	85	91	87	83	88	85	82	86	83	81	79
4	96	88	82	78	94	87	81	77	85	80	76	83	79	75	81	77	75	73
5	91	82	76	71	89	81	75	71	79	74	70	77	73	70	76	72	69	67
6	86	76	70	66	84	76	70	65	74	69	65	73	68	64	71	67	64	62
7	81	71	65	61	80	71	65	61	69	64	60	68	63	60	67	63	60	58
8	77	67	61	56	76	66	60	56	65	60	56	64	59	56	63	59	56	54
9	73	63	57	53	72	62	57	52	61	56	52	61	56	52	60	55	52	51
10	69	59	53	49	68	59	53	49	58	53	49	57	52	49	56	52	49	47

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9521	9521	9521
5°	9456	9315	9356
10°	9260	8870	8645
15°	8711	8107	7773
20°	7776	7197	6790
25°	6796	6086	5774
30°	5834	4973	4649
35°	4866	3884	3489
40°	3784	2864	2233
45°	2649	1908	968
50°	1441	1002	344
55°	209	351	244
60°	41	81	162
65°	0	48	96
70°	0	0	59
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2649 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.4	9.8
10°-20°	119.5	24.6
20°-30°	139.3	28.7
30°-40°	111.6	23.0
40°-50°	55.5	11.4
50°-60°	10.9	2.3
60°-70°	1.0	0.2
70°-80°	0.1	0.0
80°-90°	0.0	0.0
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°	306.1	63.1
0°-40°	417.8	86.1
0°-60°	484.2	99.8
0°-90°	485.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	485.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	516	516	516	516	516	
5°	510	510	503	504	505	48
15°	456	447	424	413	407	127
25°	334	317	299	292	284	154
35°	216	194	172	165	155	134
45°	102	90	73	49	37	78
55°	6	13	11	6	8	13
65°	0	0	1	1	2	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	516.0	516.0	516.0	516.0	516.0
2.5°	513.8	516.0	510.5	516.0	517.1
5°	510.5	510.5	502.9	504.0	505.1
7.5°	505.1	502.9	489.8	487.6	485.4
10°	494.2	489.8	473.4	464.7	461.4
12.5°	478.9	472.4	450.5	440.7	435.3
15°	456.0	447.3	424.4	413.4	406.9
17.5°	426.5	418.9	397.1	385.1	378.5
20°	396.0	385.1	366.5	354.5	345.8
22.5°	366.5	352.4	332.7	324.0	315.3
25°	333.8	317.4	298.9	292.4	283.6
27.5°	306.5	285.8	264.0	259.6	252.0
30°	273.8	254.2	233.4	226.9	218.2
32.5°	245.4	223.6	202.9	195.3	187.6
35°	216.0	194.2	172.4	164.7	154.9
37.5°	187.6	166.9	145.1	133.1	124.4
40°	157.1	139.6	118.9	103.6	92.7
42.5°	129.8	114.5	94.9	75.3	64.4
45°	101.5	89.5	73.1	49.1	37.1
47.5°	75.3	66.5	53.5	28.4	19.6
50°	50.2	46.9	34.9	14.2	12.0
52.5°	27.3	29.5	20.7	8.7	9.8
55°	6.5	13.1	10.9	6.5	7.6
57.5°	1.1	2.2	5.5	5.5	5.5
60°	1.1	1.1	2.2	3.3	4.4
62.5°	1.1	0.0	1.1	2.2	3.3
65°	0.0	0.0	1.1	1.1	2.2
67.5°	0.0	0.0	0.0	1.1	1.1
70°	0.0	0.0	0.0	1.1	1.1
72.5°	0.0	0.0	0.0	0.0	1.1
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4H	2H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00