

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1057870

Luminaire Tested: S122RDRP-S290D830-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057870  
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: S122RDRP-S290D830-X4F0-XX-UDD-BVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

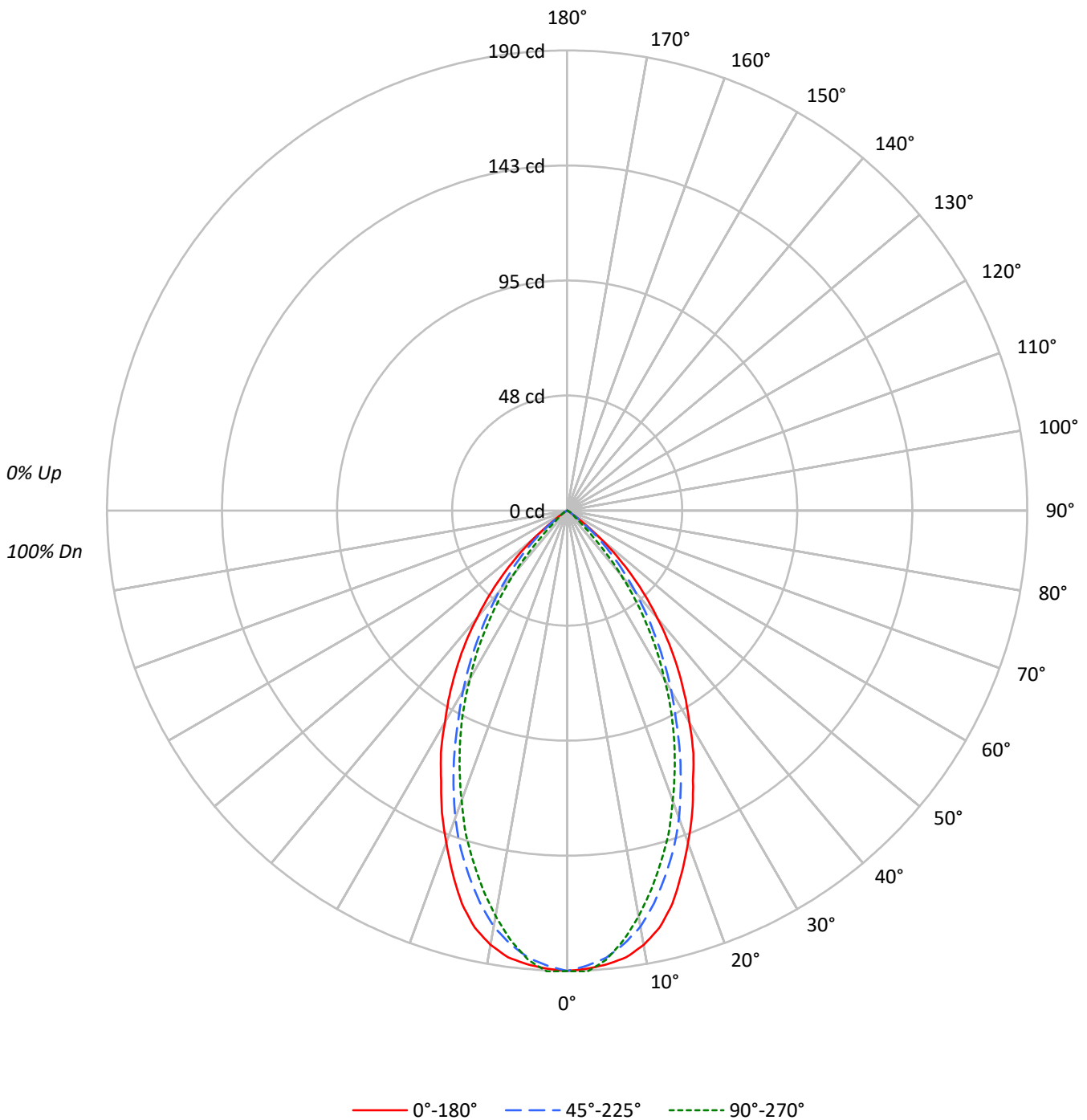
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 178.7 lumens  
Efficiency: N/A  
Efficacy: 14.3 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): 12.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	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	100	100	100	100	100		
1	113	110	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95	93	93	93	93	93	93	93		
2	107	102	98	94	105	100	97	93	97	94	91	94	92	89	91	89	87	86	86	86	86	86	86	86		
3	101	95	90	85	99	93	89	85	91	87	83	88	85	82	86	83	81	79	79	79	79	79	79	79		
4	96	88	82	78	94	87	81	77	85	80	76	83	79	75	81	77	75	73	73	73	73	73	73	73		
5	91	82	76	71	89	81	75	71	79	74	70	77	73	70	76	72	69	67	67	67	67	67	67	67		
6	86	76	70	66	84	76	70	65	74	69	65	73	68	64	71	67	64	62	62	62	62	62	62	62		
7	81	71	65	61	80	71	65	61	69	64	60	68	63	60	67	63	60	58	58	58	58	58	58	58		
8	77	67	61	56	76	66	60	56	65	60	56	64	59	56	63	59	56	54	54	54	54	54	54	54		
9	73	63	57	53	72	62	57	52	61	56	52	61	56	52	60	55	52	51	51	51	51	51	51	51		
10	69	59	53	49	68	59	53	49	58	53	49	57	52	49	56	52	49	47	47	47	47	47	47	47		

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3508	3508	3508
5°	3484	3432	3447
10°	3412	3268	3185
15°	3209	2986	2864
20°	2865	2651	2502
25°	2504	2242	2128
30°	2150	1832	1713
35°	1793	1430	1286
40°	1395	1055	824
45°	976	702	358
50°	531	370	126
55°	77	129	90
60°	15	30	59
65°	0	17	35
70°	0	0	22
75°	0	0	0
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 976 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	17.5	9.8
10°-20°	44.0	24.6
20°-30°	51.3	28.7
30°-40°	41.1	23.0
40°-50°	20.4	11.4
50°-60°	4.0	2.3
60°-70°	0.4	0.2
70°-80°	0.0	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°	112.8	63.1
0°-40°	153.9	86.1
0°-60°	178.3	99.8
0°-90°	178.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	178.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	190	190	190	190	190	
5°	188	188	185	186	186	18
15°	168	165	156	152	150	47
25°	123	117	110	108	104	57
35°	80	72	64	61	57	49
45°	37	33	27	18	14	29
55°	2	5	4	2	3	5
65°	0	0	0	0	1	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°	190.1	190.1	190.1	190.1	190.1
2.5°	189.3	190.1	188.1	190.1	190.5
5°	188.1	188.1	185.3	185.7	186.1
7.5°	186.1	185.3	180.4	179.6	178.8
10°	182.1	180.4	174.4	171.2	170.0
12.5°	176.4	174.0	166.0	162.4	160.3
15°	168.0	164.8	156.3	152.3	149.9
17.5°	157.1	154.3	146.3	141.9	139.5
20°	145.9	141.9	135.0	130.6	127.4
22.5°	135.0	129.8	122.6	119.4	116.1
25°	123.0	116.9	110.1	107.7	104.5
27.5°	112.9	105.3	97.3	95.6	92.8
30°	100.9	93.6	86.0	83.6	80.4
32.5°	90.4	82.4	74.7	71.9	69.1
35°	79.6	71.5	63.5	60.7	57.1
37.5°	69.1	61.5	53.4	49.0	45.8
40°	57.9	51.4	43.8	38.2	34.2
42.5°	47.8	42.2	35.0	27.7	23.7
45°	37.4	33.0	26.9	18.1	13.7
47.5°	27.7	24.5	19.7	10.4	7.2
50°	18.5	17.3	12.9	5.2	4.4
52.5°	10.0	10.9	7.6	3.2	3.6
55°	2.4	4.8	4.0	2.4	2.8
57.5°	0.4	0.8	2.0	2.0	2.0
60°	0.4	0.4	0.8	1.2	1.6
62.5°	0.4	0.0	0.4	0.8	1.2
65°	0.0	0.0	0.4	0.4	0.8
67.5°	0.0	0.0	0.0	0.4	0.4
70°	0.0	0.0	0.0	0.4	0.4
72.5°	0.0	0.0	0.0	0.0	0.4
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