

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: P1057870

Luminaire Tested: S122RDR-S290D830-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
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: S122RDR-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: -

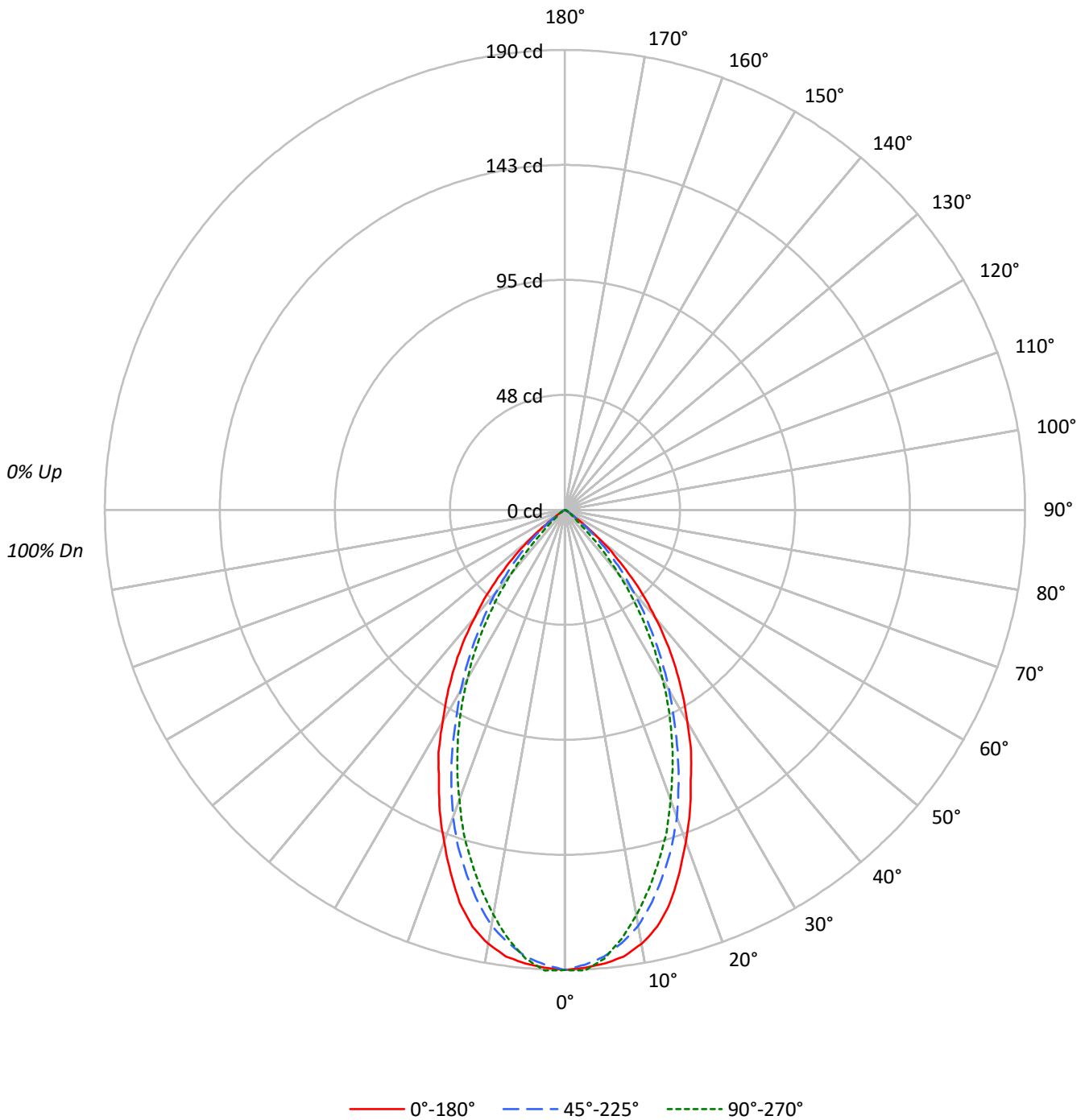
**Summary**

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 (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°	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

(END OF REPORT)