

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: P1057897

Luminaire Tested: S122RDR-S290D850-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1057897  
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-S290D850-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: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

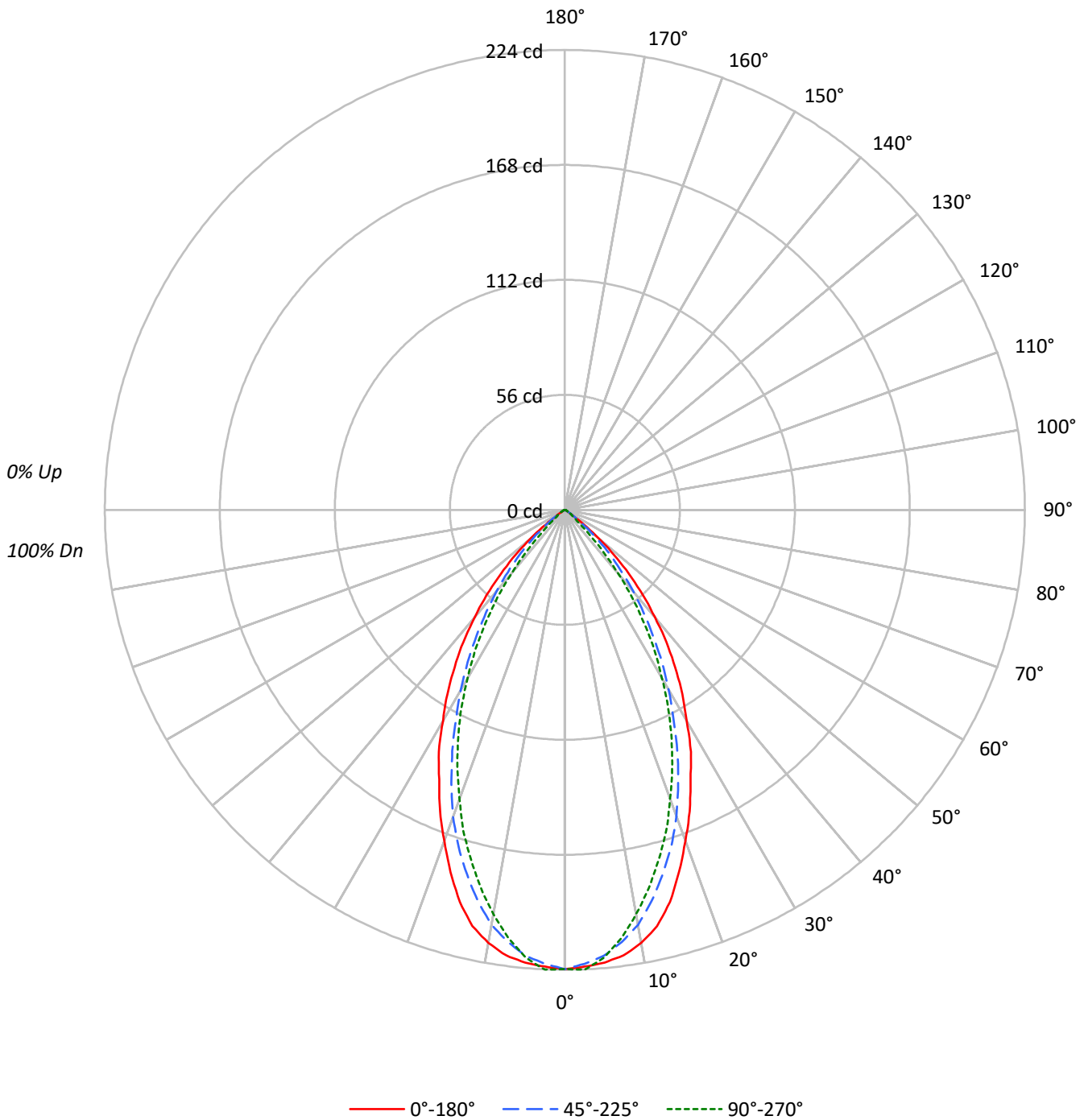
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 210.3 lumens  
Efficiency: N/A  
Efficacy: 16.8 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

TEST NUMBER: P1057897

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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°	4128	4128	4128
5°	4099	4038	4055
10°	4013	3845	3747
15°	3777	3513	3370
20°	3370	3120	2944
25°	2946	2639	2502
30°	2529	2156	2016
35°	2108	1683	1512
40°	1640	1241	968
45°	1148	827	420
50°	626	433	149
55°	90	151	106
60°	18	33	70
65°	0	22	39
70°	0	0	27
75°	0	0	0
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1148 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	20.5	9.8
10°-20°	51.8	24.6
20°-30°	60.4	28.7
30°-40°	48.4	23.0
40°-50°	24.0	11.4
50°-60°	4.7	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°	132.7	63.1
0°-40°	181.1	86.1
0°-60°	209.9	99.8
0°-90°	210.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	210.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	224	224	224	224	224	
5°	221	221	218	218	219	21
15°	198	194	184	179	176	55
25°	145	138	130	127	123	67
35°	94	84	75	71	67	58
45°	44	39	32	21	16	34
55°	3	6	5	3	3	6
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°	223.7	223.7	223.7	223.7	223.7
2.5°	222.7	223.7	221.3	223.7	224.1
5°	221.3	221.3	218.0	218.5	218.9
7.5°	218.9	218.0	212.3	211.4	210.4
10°	214.2	212.3	205.2	201.4	200.0
12.5°	207.6	204.7	195.3	191.0	188.7
15°	197.7	193.9	183.9	179.2	176.4
17.5°	184.9	181.6	172.1	166.9	164.1
20°	171.6	166.9	158.9	153.7	149.9
22.5°	158.9	152.7	144.2	140.4	136.7
25°	144.7	137.6	129.6	126.7	122.9
27.5°	132.9	123.9	114.4	112.5	109.2
30°	118.7	110.2	101.2	98.4	94.6
32.5°	106.4	96.9	88.0	84.6	81.3
35°	93.6	84.2	74.7	71.4	67.1
37.5°	81.3	72.3	62.9	57.7	53.9
40°	68.1	60.5	51.5	44.9	40.2
42.5°	56.3	49.6	41.1	32.6	27.9
45°	44.0	38.8	31.7	21.3	16.1
47.5°	32.6	28.8	23.2	12.3	8.5
50°	21.8	20.3	15.1	6.1	5.2
52.5°	11.8	12.8	9.0	3.8	4.3
55°	2.8	5.7	4.7	2.8	3.3
57.5°	0.5	0.9	2.4	2.4	2.4
60°	0.5	0.5	0.9	1.4	1.9
62.5°	0.5	0.0	0.5	0.9	1.4
65°	0.0	0.0	0.5	0.5	0.9
67.5°	0.0	0.0	0.0	0.5	0.5
70°	0.0	0.0	0.0	0.5	0.5
72.5°	0.0	0.0	0.0	0.0	0.5
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)