

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: P1057897

Luminaire Tested: S122RDRP-S290D850-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
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: S122RDRP-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

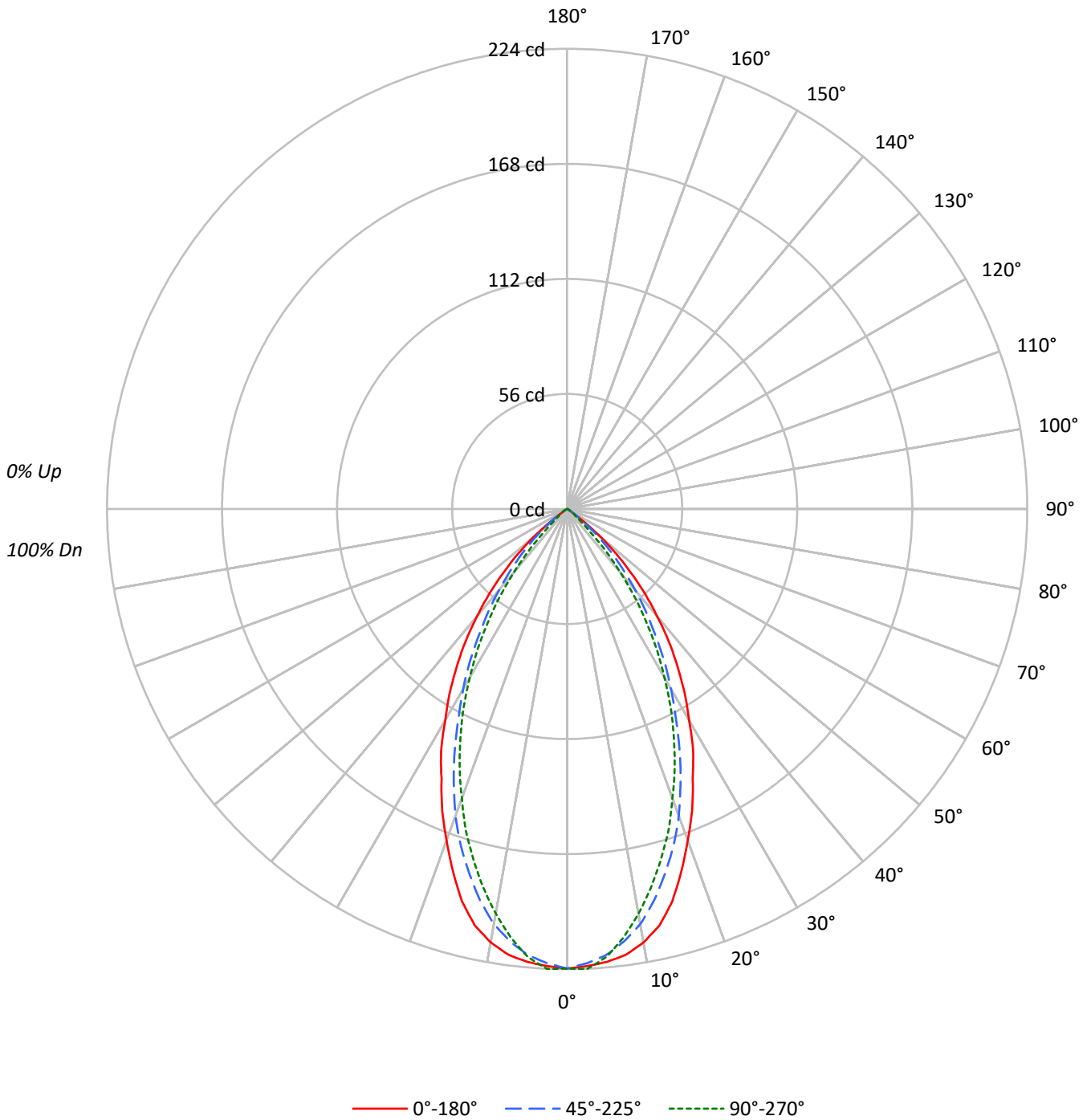
Lumens per Lamp: N/A
Luminaire Lumens: 210.3 lumens
Efficiency: N/A
Efficacy: 16.8 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 0.8 / 0.88
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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

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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°	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



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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