

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: P1057873

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057873
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-20)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S290D830-X4F0-XX-UDD-SVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

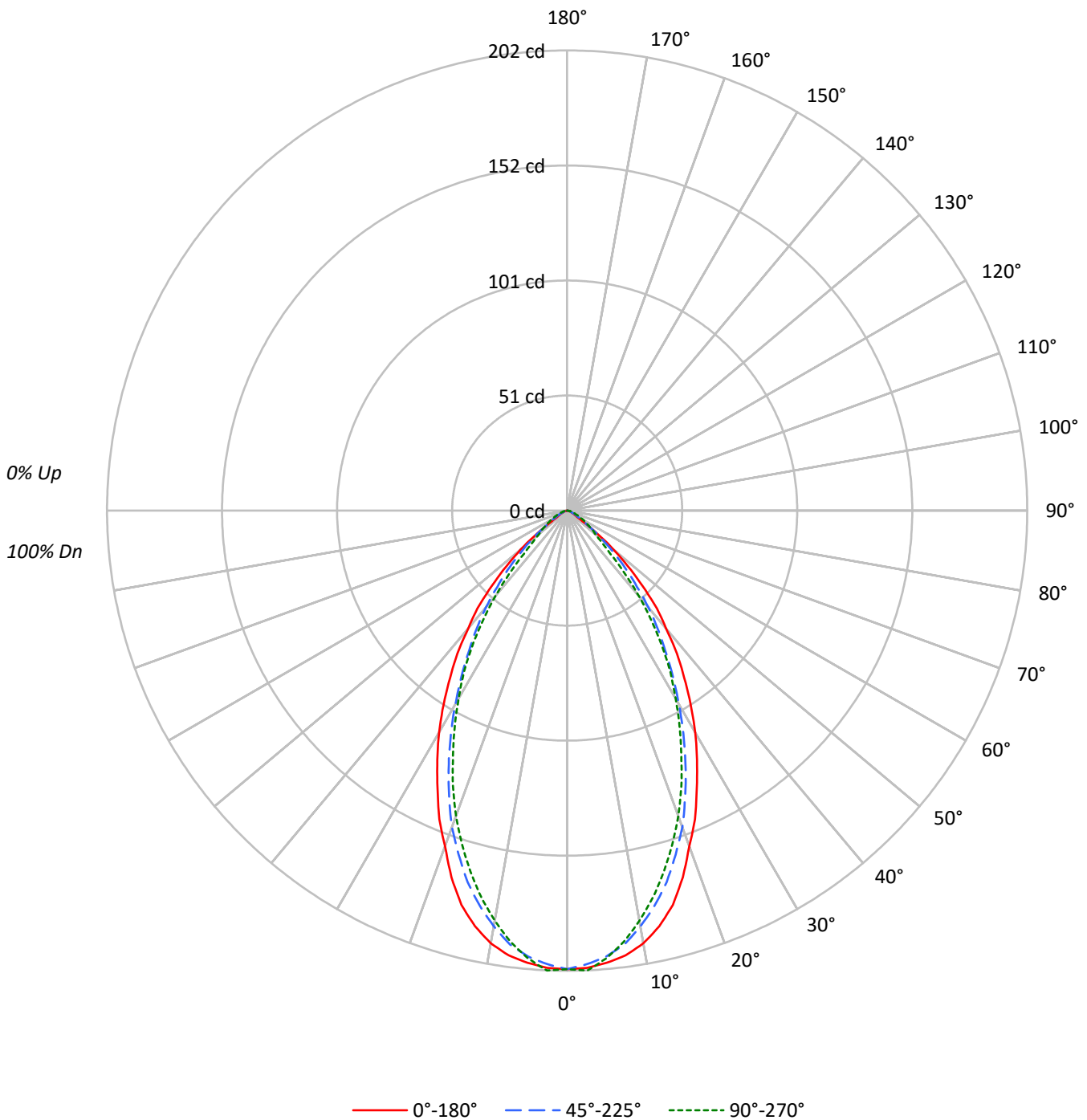
Lumens per Lamp: N/A
Luminaire Lumens: 216.5 lumens
Efficiency: N/A
Efficacy: 17.3 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
Input Voltage (V): 120
Input Current (A_{in}): 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	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	81	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64
6	83	73	67	62	82	72	66	62	71	65	61	69	64	61	68	64	60	59
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	47
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	44

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3714	3714	3714
5°	3692	3640	3655
10°	3614	3472	3425
15°	3423	3225	3133
20°	3077	2904	2802
25°	2740	2504	2413
30°	2397	2090	2028
35°	2018	1692	1638
40°	1626	1337	1180
45°	1216	966	702
50°	761	623	462
55°	257	335	376
60°	148	207	295
65°	105	140	227
70°	86	108	173
75°	57	86	143
80°	43	85	128
85°	0	0	85

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1216 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.6	8.6
10°-20°	47.5	21.9
20°-30°	57.2	26.4
30°-40°	48.9	22.6
40°-50°	28.6	13.2
50°-60°	10.4	4.8
60°-70°	3.7	1.7
70°-80°	1.5	0.7
80°-90°	0.3	0.1
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°	123.3	56.9
0°-40°	172.1	79.5
0°-60°	211.1	97.5
0°-90°	216.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	216.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	201	201	201	201	201	
5°	199	200	196	197	197	19
15°	179	176	169	166	164	50
25°	135	129	123	121	118	62
35°	90	83	75	74	73	56
45°	47	42	37	31	27	36
55°	8	11	10	11	12	10
65°	2	3	3	4	5	3
75°	1	1	1	2	2	1
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°	201.3	201.3	201.3	201.3	201.3
2.5°	200.9	201.3	199.3	201.3	202.1
5°	199.3	199.7	196.5	197.3	197.3
7.5°	196.9	196.5	192.1	191.3	190.9
10°	192.9	191.7	185.3	184.1	182.8
12.5°	186.9	184.5	177.6	175.6	174.0
15°	179.2	176.4	168.8	165.6	164.0
17.5°	168.8	165.6	158.3	155.1	153.5
20°	156.7	153.5	147.9	144.3	142.7
22.5°	146.7	141.5	135.4	133.0	131.0
25°	134.6	129.0	123.0	121.0	118.5
27.5°	123.4	116.5	110.5	108.9	106.9
30°	112.5	105.3	98.1	98.1	95.2
32.5°	100.9	94.0	86.4	86.0	84.4
35°	89.6	82.8	75.1	74.3	72.7
37.5°	79.2	72.3	65.1	62.7	60.7
40°	67.5	61.5	55.5	51.4	49.0
42.5°	58.3	51.4	45.4	40.6	37.4
45°	46.6	41.8	37.0	30.9	26.9
47.5°	36.2	33.0	28.9	22.1	20.1
50°	26.5	24.9	21.7	16.5	16.1
52.5°	16.9	17.7	15.7	12.9	14.1
55°	8.0	11.3	10.4	10.9	11.7
57.5°	5.2	5.6	7.6	8.8	9.6
60°	4.0	4.0	5.6	7.2	8.0
62.5°	3.2	3.2	4.4	6.0	6.4
65°	2.4	2.8	3.2	4.4	5.2
67.5°	2.0	2.0	2.4	3.6	4.0
70°	1.6	1.6	2.0	2.8	3.2
72.5°	1.2	1.2	1.6	2.4	2.4
75°	0.8	1.2	1.2	1.6	2.0
77.5°	0.8	0.8	0.8	1.2	1.6
80°	0.4	0.4	0.8	0.8	1.2
82.5°	0.4	0.4	0.4	0.4	0.8
85°	0.0	0.0	0.0	0.4	0.4
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	0.41	1.57	0.78	1.89	2.20	3.81	4.97	4.17	5.28	5.60
	3H	0.93	1.95	1.31	2.29	2.65	4.54	5.56	4.92	5.89	6.26
	4H	1.07	2.01	1.47	2.37	2.75	4.75	5.70	5.16	6.05	6.44
	6H	1.14	2.01	1.56	2.38	2.78	4.90	5.77	5.32	6.14	6.54
	8H	1.15	1.96	1.58	2.35	2.76	4.94	5.75	5.37	6.14	6.55
	12H	1.11	1.89	1.54	2.27	2.70	4.94	5.72	5.37	6.10	6.53
4H	2H	0.72	1.67	1.13	2.02	2.41	3.78	4.72	4.18	5.07	5.46
	3H	1.38	2.15	1.79	2.55	2.96	4.65	5.42	5.07	5.82	6.23
	4H	1.62	2.30	2.06	2.73	3.17	4.93	5.61	5.37	6.04	6.48
	6H	1.74	2.33	2.21	2.77	3.24	5.16	5.74	5.62	6.19	6.66
	8H	1.75	2.30	2.23	2.75	3.22	5.20	5.75	5.67	6.20	6.67
	12H	1.72	2.20	2.21	2.68	3.16	5.22	5.70	5.71	6.19	6.66
8H	4H	1.73	2.27	2.20	2.72	3.20	4.86	5.41	5.33	5.86	6.33
	6H	1.89	2.33	2.40	2.84	3.32	5.12	5.56	5.63	6.06	6.55
	8H	1.94	2.33	2.47	2.85	3.35	5.18	5.58	5.71	6.10	6.59
	12H	1.92	2.26	2.43	2.76	3.34	5.24	5.59	5.76	6.09	6.66
12H	4H	1.71	2.19	2.20	2.68	3.15	4.81	5.29	5.30	5.78	6.25
	6H	1.89	2.29	2.42	2.81	3.30	5.07	5.47	5.60	5.99	6.48
	8H	1.96	2.31	2.48	2.81	3.39	5.16	5.50	5.68	6.00	6.58