

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: P1057872

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057872
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)
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-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

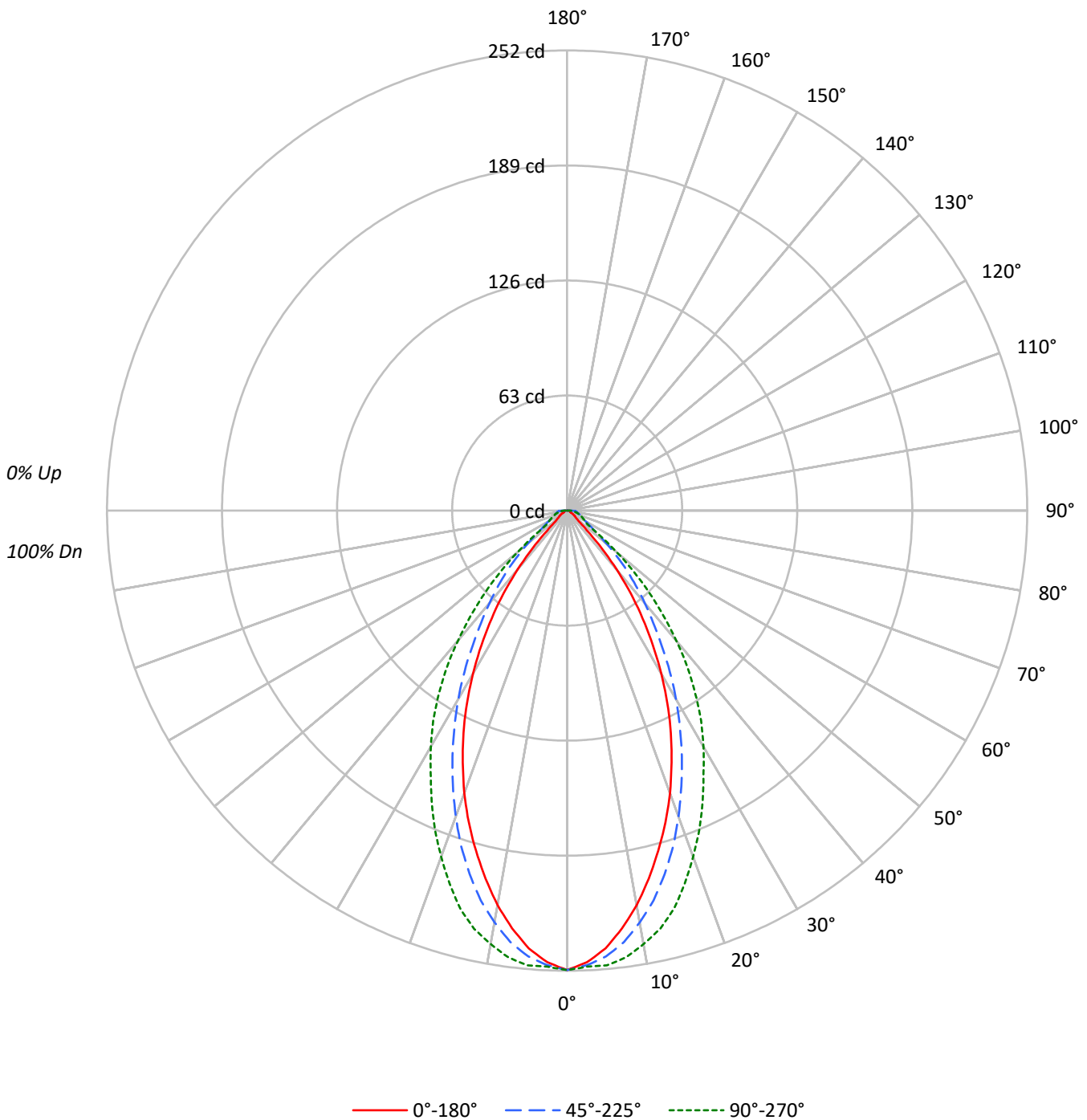
Lumens per Lamp: N/A
Luminaire Lumens: 273.8 lumens
Efficiency: N/A
Efficacy: 21.9 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	81	78	75	74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4643	4643	4643
5°	4458	4540	4631
10°	4111	4291	4518
15°	3683	3937	4314
20°	3232	3501	3961
25°	2736	3023	3573
30°	2197	2540	3181
35°	1624	2032	2757
40°	1019	1590	2240
45°	399	1198	1660
50°	195	810	1016
55°	154	531	454
60°	118	432	417
65°	87	406	406
70°	108	410	410
75°	114	456	428
80°	170	595	468
85°	339	1016	677

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 1861 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.0	8.4
10°-20°	58.1	21.2
20°-30°	69.5	25.4
30°-40°	58.5	21.4
40°-50°	33.3	12.2
50°-60°	13.1	4.8
60°-70°	8.3	3.0
70°-80°	6.1	2.2
80°-90°	3.9	1.4
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°	150.6	55.0
0°-40°	209.1	76.4
0°-60°	255.5	93.3
0°-90°	273.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	273.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	252	252	252	252	252	
5°	241	246	245	248	250	22
15°	193	200	206	218	226	54
25°	134	140	148	164	176	61
35°	72	78	90	110	122	45
45°	15	27	46	58	64	14
55°	5	10	16	17	14	4
65°	2	9	9	9	9	2
75°	2	6	6	6	6	2
85°	2	4	5	4	3	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	251.6	251.6	251.6	251.6	251.6
2.5°	247.6	252.0	249.2	249.6	250.0
5°	240.7	246.0	245.1	248.0	250.0
7.5°	230.7	236.3	238.3	243.1	246.8
10°	219.4	225.8	229.0	236.7	241.1
12.5°	206.5	213.7	218.6	228.2	234.7
15°	192.8	199.7	206.1	218.2	225.8
17.5°	179.1	186.0	192.8	206.1	214.2
20°	164.6	171.1	178.3	192.4	201.7
22.5°	149.3	156.2	163.4	177.9	189.2
25°	134.4	140.5	148.5	163.8	175.5
27.5°	118.7	124.8	133.6	149.3	161.8
30°	103.1	109.1	119.2	135.3	149.3
32.5°	87.4	93.8	104.7	122.4	136.5
35°	72.1	78.5	90.2	109.5	122.4
37.5°	57.2	64.4	77.3	96.2	108.3
40°	42.3	50.7	66.0	82.9	93.0
42.5°	28.2	38.6	55.6	69.6	78.1
45°	15.3	27.0	45.9	57.6	63.6
47.5°	8.5	17.3	36.6	45.9	49.5
50°	6.8	12.1	28.2	35.0	35.4
52.5°	5.6	10.9	20.9	25.0	22.9
55°	4.8	10.5	16.5	16.9	14.1
57.5°	4.0	10.1	13.7	12.1	12.1
60°	3.2	10.1	11.7	10.9	11.3
62.5°	2.4	10.1	10.5	9.7	10.1
65°	2.0	9.3	9.3	8.9	9.3
67.5°	2.0	8.5	8.5	8.1	8.5
70°	2.0	8.1	7.6	7.6	7.6
72.5°	1.6	7.2	7.2	6.8	6.8
75°	1.6	6.4	6.4	6.0	6.0
77.5°	1.6	6.0	6.0	5.6	5.2
80°	1.6	5.2	5.6	5.2	4.4
82.5°	1.6	4.8	5.2	4.8	3.6
85°	1.6	4.4	4.8	4.4	3.2
87.5°	1.2	4.4	4.4	3.6	2.4
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	3.05	4.27	3.41	4.58	4.89	5.06	6.29	5.43	6.60	6.91
	3H	4.59	5.68	4.97	6.01	6.37	7.03	8.12	7.41	8.45	8.82
	4H	5.14	6.15	5.54	6.50	6.88	7.93	8.95	8.34	9.30	9.68
	6H	5.68	6.61	6.10	6.98	7.38	8.81	9.74	9.22	10.11	10.50
	8H	5.97	6.85	6.40	7.24	7.65	9.21	10.09	9.64	10.48	10.89
	12H	6.33	7.17	6.76	7.55	7.98	9.65	10.49	10.08	10.87	11.30
4H	2H	4.24	5.25	4.64	5.60	5.98	5.69	6.70	6.09	7.05	7.44
	3H	6.43	7.26	6.84	7.66	8.07	7.92	8.75	8.33	9.16	9.56
	4H	7.46	8.21	7.90	8.63	9.08	8.98	9.72	9.41	10.14	10.59
	6H	8.35	9.00	8.81	9.44	9.91	10.08	10.72	10.54	11.17	11.64
	8H	8.73	9.34	9.20	9.78	10.26	10.60	11.20	11.07	11.65	12.12
	12H	9.15	9.68	9.63	10.17	10.64	11.17	11.70	11.66	12.19	12.66
8H	4H	8.25	8.86	8.73	9.31	9.78	9.46	10.07	9.93	10.52	10.99
	6H	9.63	10.12	10.13	10.62	11.10	10.85	11.35	11.35	11.84	12.33
	8H	10.34	10.79	10.86	11.30	11.80	11.59	12.03	12.11	12.55	13.04
	12H	11.09	11.48	11.60	11.98	12.55	12.41	12.81	12.93	13.30	13.88
12H	4H	8.42	8.95	8.90	9.43	9.91	9.56	10.10	10.05	10.58	11.06
	6H	9.95	10.40	10.48	10.92	11.41	11.07	11.51	11.59	12.03	12.52
	8H	10.87	11.26	11.38	11.75	12.33	11.95	12.34	12.46	12.84	13.41