

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: P1057938

Luminaire Tested: S122RDRP-S290D940-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057938
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-56)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S290D940-X4F0-XX-UDD-SVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

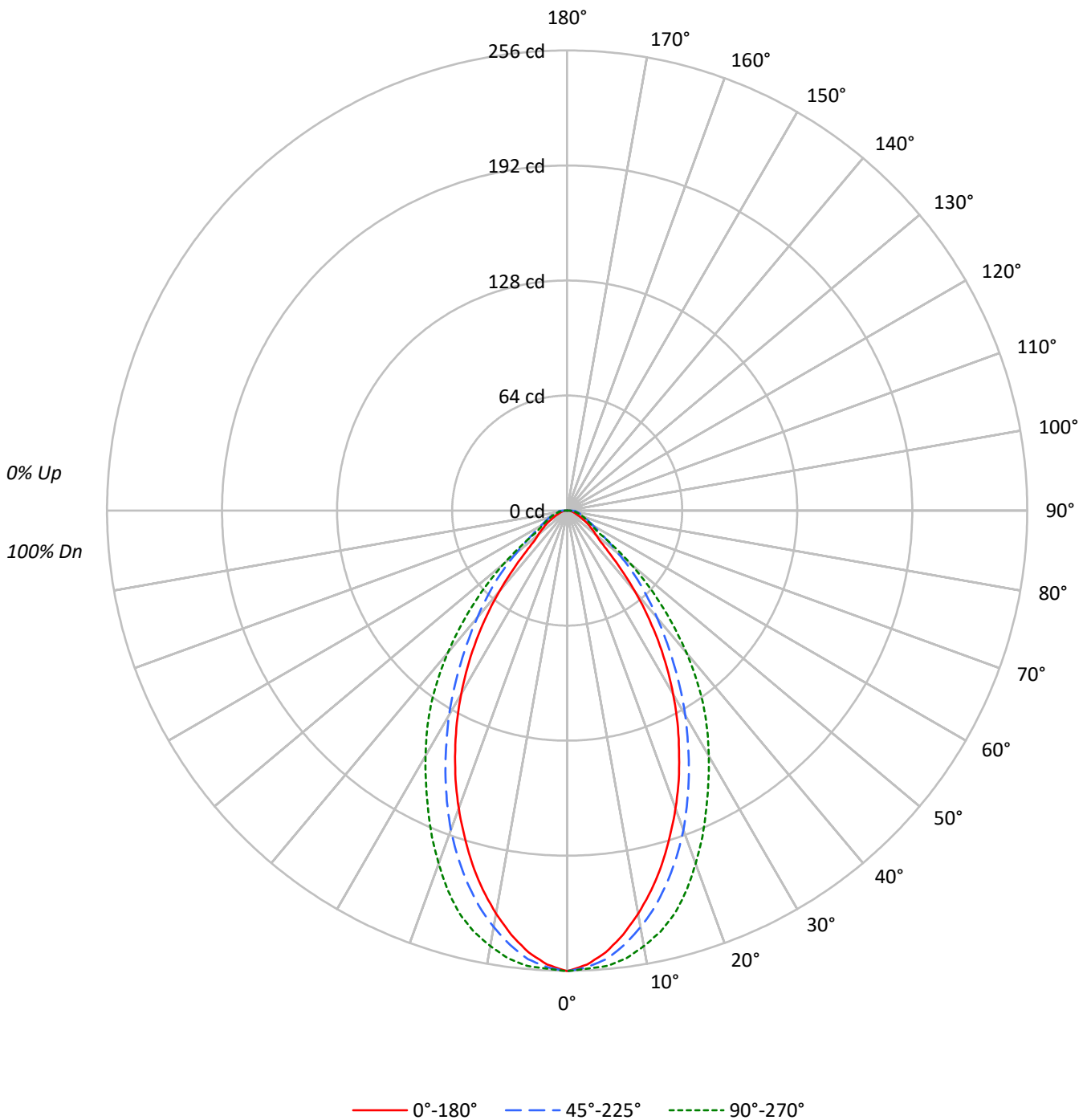
Lumens per Lamp: N/A
Luminaire Lumens: 310.8 lumens
Efficiency: N/A
Efficacy: 24.9 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	83	78	75	80	77	74	72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	45	66	56	49	45	55	49	44	54	48	44	53	48	44	42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4728	4728	4728
5°	4570	4640	4710
10°	4266	4409	4609
15°	3891	4096	4430
20°	3462	3715	4104
25°	2999	3264	3728
30°	2514	2800	3358
35°	1982	2316	2976
40°	1412	1872	2486
45°	835	1480	1928
50°	600	1071	1312
55°	502	772	663
60°	406	620	561
65°	332	550	515
70°	286	534	491
75°	271	542	492
80°	287	648	521
85°	402	1037	635

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1928 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.5	7.6
10°-20°	60.4	19.4
20°-30°	74.5	24.0
30°-40°	66.3	21.3
40°-50°	42.3	13.6
50°-60°	20.3	6.5
60°-70°	11.9	3.8
70°-80°	7.6	2.4
80°-90°	4.0	1.3
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°	158.4	51.0
0°-40°	224.6	72.3
0°-60°	287.2	92.4
0°-90°	310.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	310.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	256	256	256	256	256	
5°	247	251	250	252	254	23
15°	204	209	214	224	232	57
25°	147	153	160	172	183	67
35°	88	95	103	118	132	55
45°	32	42	57	66	74	27
55°	16	20	24	23	21	14
65°	8	14	13	11	12	8
75°	4	8	8	7	7	4
85°	2	5	5	4	3	2
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	256.2	256.2	256.2	256.2	256.2
2.5°	252.8	257.0	254.3	254.3	255.1
5°	246.7	251.3	250.5	252.1	254.3
7.5°	238.0	242.9	243.7	247.9	251.3
10°	227.7	233.0	235.3	241.4	246.0
12.5°	216.3	221.6	225.8	233.4	239.9
15°	203.7	208.7	214.4	224.3	231.9
17.5°	190.0	196.5	202.2	212.5	221.2
20°	176.3	182.4	189.2	199.1	209.0
22.5°	162.2	167.9	174.8	185.0	196.5
25°	147.3	153.1	160.3	171.7	183.1
27.5°	132.9	138.6	145.4	158.0	170.2
30°	118.0	123.7	131.4	144.3	157.6
32.5°	103.2	109.3	116.9	131.0	145.1
35°	88.0	94.8	102.8	118.4	132.1
37.5°	73.1	80.0	89.9	105.1	118.0
40°	58.6	66.6	77.7	91.4	103.2
42.5°	44.5	53.3	67.0	78.1	88.3
45°	32.0	41.5	56.7	65.9	73.9
47.5°	24.4	31.2	46.8	54.1	59.8
50°	20.9	25.1	37.3	42.6	45.7
52.5°	18.3	22.1	29.7	32.4	32.4
55°	15.6	20.2	24.0	23.2	20.6
57.5°	13.3	18.3	19.8	16.8	17.5
60°	11.0	16.8	16.8	14.8	15.2
62.5°	9.1	15.6	14.5	12.9	13.3
65°	7.6	13.7	12.6	11.4	11.8
67.5°	6.1	12.2	11.0	10.3	10.3
70°	5.3	11.0	9.9	9.1	9.1
72.5°	4.6	9.5	8.8	8.0	8.0
75°	3.8	8.4	7.6	7.2	6.9
77.5°	3.4	7.2	6.9	6.1	5.7
80°	2.7	6.1	6.1	5.7	4.9
82.5°	2.3	5.3	5.3	4.9	4.2
85°	1.9	4.6	4.9	4.2	3.0
87.5°	1.5	4.2	4.2	3.4	2.3
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	7.08	8.35	7.44	8.66	8.98	6.87	8.15	7.24	8.46	8.78
	3H	8.30	9.44	8.68	9.77	10.13	8.46	9.59	8.84	9.92	10.29
	4H	8.76	9.81	9.16	10.17	10.55	9.18	10.23	9.58	10.59	10.97
	6H	9.13	10.11	9.55	10.48	10.87	9.82	10.79	10.24	11.17	11.56
	8H	9.29	10.21	9.72	10.60	11.01	10.15	11.07	10.58	11.46	11.87
	12H	9.45	10.33	9.88	10.71	11.14	10.44	11.32	10.88	11.71	12.14
4H	2H	7.63	8.69	8.03	9.04	9.42	7.47	8.52	7.87	8.88	9.26
	3H	9.32	10.19	9.73	10.59	10.99	9.29	10.17	9.71	10.57	10.97
	4H	10.11	10.89	10.55	11.31	11.76	10.17	10.95	10.60	11.37	11.81
	6H	10.75	11.43	11.22	11.88	12.34	11.01	11.68	11.47	12.13	12.60
	8H	11.00	11.64	11.47	12.08	12.56	11.43	12.06	11.90	12.51	12.98
	12H	11.25	11.81	11.74	12.29	12.77	11.82	12.38	12.31	12.87	13.34
8H	4H	10.53	11.16	11.00	11.61	12.08	10.59	11.22	11.05	11.67	12.14
	6H	11.51	12.03	12.01	12.52	13.00	11.66	12.18	12.17	12.68	13.16
	8H	12.00	12.46	12.52	12.98	13.47	12.25	12.72	12.77	13.23	13.73
	12H	12.50	12.91	13.02	13.41	13.98	12.85	13.26	13.36	13.76	14.33
12H	4H	10.60	11.16	11.08	11.64	12.12	10.66	11.22	11.15	11.70	12.18
	6H	11.67	12.14	12.20	12.66	13.15	11.83	12.29	12.35	12.81	13.30
	8H	12.31	12.72	12.82	13.21	13.79	12.53	12.95	13.05	13.44	14.01