

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: P1057896

Luminaire Tested: S122RDRP-S290D840-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057896  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55 )  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S290D840-X4F0-XX-UDD-WVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

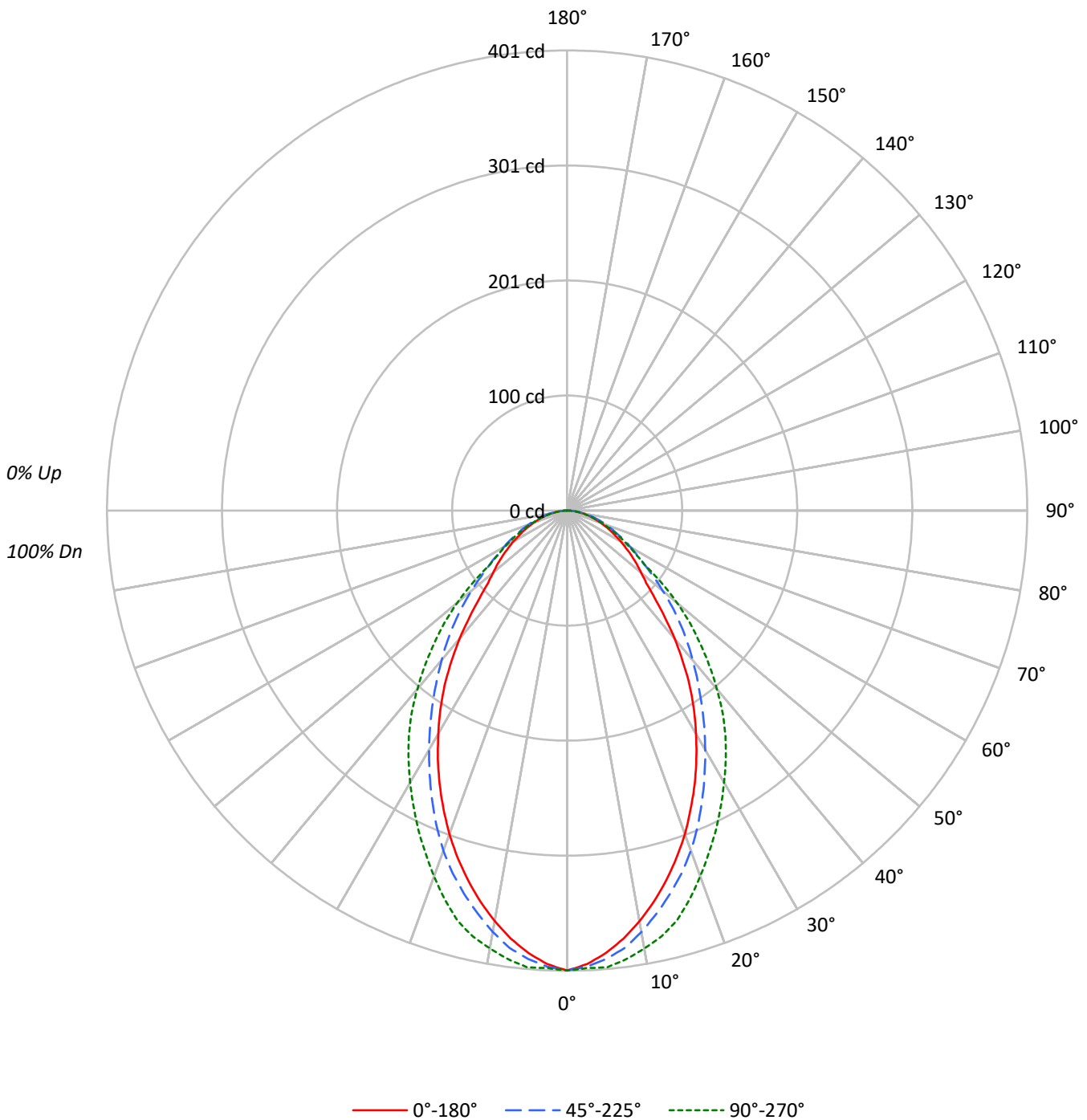
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 653.4 lumens  
Efficiency: N/A  
Efficacy: 52.3 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05  
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<sub>in</sub>): 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	110	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59
5	81	70	62	56	80	69	62	56	67	60	55	65	59	55	63	58	54	52
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44	43
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36
10	59	47	40	35	58	46	39	35	46	39	35	45	39	35	44	38	34	33

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7396	7396	7396
5°	7168	7263	7400
10°	6807	6985	7259
15°	6371	6610	7063
20°	5889	6193	6659
25°	5353	5668	6246
30°	4783	5124	5830
35°	4194	4591	5418
40°	3510	4100	4890
45°	2811	3633	4274
50°	2411	3129	3588
55°	2204	2661	2648
60°	2004	2355	2307
65°	1825	2109	2013
70°	1672	1931	1791
75°	1568	1782	1568
80°	1466	1647	1371
85°	1461	1736	1186

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4274 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.0	5.7
10°-20°	97.9	15.0
20°-30°	129.2	19.8
30°-40°	130.1	19.9
40°-50°	105.9	16.2
50°-60°	72.2	11.0
60°-70°	46.9	7.2
70°-80°	25.8	3.9
80°-90°	8.4	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°	264.1	40.4
0°-40°	394.2	60.3
0°-60°	572.3	87.6
0°-90°	653.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	653.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	401	401	401	401	401	
5°	387	394	392	396	400	36
15°	334	342	346	360	370	93
25°	263	272	278	291	307	121
35°	186	196	204	222	240	116
45°	108	121	139	151	164	85
55°	68	75	83	83	82	61
65°	42	50	48	46	46	42
75°	22	27	25	22	22	23
85°	7	9	8	6	6	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	400.8	400.8	400.8	400.8	400.8
2.5°	395.6	402.1	397.7	398.2	399.0
5°	387.0	394.3	392.1	395.6	399.5
7.5°	376.2	383.5	384.4	389.6	394.3
10°	363.3	371.5	372.8	380.5	387.4
12.5°	349.1	358.1	359.8	371.0	380.1
15°	333.5	342.2	346.0	360.3	369.7
17.5°	317.2	325.4	331.4	344.3	355.1
20°	299.9	307.7	315.4	327.1	339.1
22.5°	281.4	290.0	297.3	309.0	322.8
25°	262.9	271.5	278.4	290.9	306.8
27.5°	243.9	252.5	259.4	272.8	290.0
30°	224.5	233.6	240.5	255.5	273.6
32.5°	205.6	214.6	222.4	238.3	257.3
35°	186.2	195.6	203.8	221.5	240.5
37.5°	165.5	176.3	186.6	204.3	222.8
40°	145.7	157.7	170.2	186.6	203.0
42.5°	125.8	139.2	154.7	168.5	183.6
45°	107.7	121.1	139.2	151.3	163.8
47.5°	93.5	104.7	124.1	134.0	145.2
50°	84.0	91.8	109.0	116.8	125.0
52.5°	76.3	82.7	94.8	100.0	104.3
55°	68.5	75.4	82.7	83.2	82.3
57.5°	60.8	68.5	72.4	69.4	71.1
60°	54.3	62.1	63.8	60.8	62.5
62.5°	47.4	56.0	56.0	53.0	53.9
65°	41.8	49.6	48.3	45.7	46.1
67.5°	36.2	44.0	41.8	39.2	39.2
70°	31.0	38.4	35.8	33.2	33.2
72.5°	26.3	32.3	30.6	27.6	27.1
75°	22.0	27.1	25.0	22.4	22.0
77.5°	17.7	22.0	20.3	18.1	17.2
80°	13.8	17.7	15.5	13.8	12.9
82.5°	10.3	13.4	11.6	9.9	9.0
85°	6.9	9.0	8.2	6.5	5.6
87.5°	3.4	6.0	5.2	4.3	3.4
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	13.67	15.11	14.04	15.42	15.74	13.92	15.36	14.28	15.67	15.99
	3H	15.20	16.49	15.58	16.82	17.18	15.28	16.56	15.66	16.89	17.26
	4H	15.76	16.97	16.16	17.32	17.70	15.76	16.96	16.16	17.31	17.69
	6H	16.19	17.30	16.60	17.67	18.06	16.10	17.22	16.52	17.58	17.98
	8H	16.34	17.40	16.77	17.79	18.19	16.21	17.27	16.64	17.66	18.06
	12H	16.45	17.46	16.88	17.84	18.27	16.28	17.29	16.71	17.67	18.10
4H	2H	14.24	15.45	14.64	15.80	16.18	14.44	15.65	14.84	16.00	16.38
	3H	16.05	17.05	16.46	17.45	17.85	16.02	17.02	16.43	17.42	17.82
	4H	16.79	17.69	17.22	18.10	18.54	16.61	17.51	17.04	17.93	18.37
	6H	17.38	18.16	17.84	18.60	19.06	17.08	17.86	17.54	18.30	18.76
	8H	17.59	18.32	18.05	18.76	19.23	17.23	17.96	17.69	18.40	18.87
	12H	17.75	18.40	18.23	18.88	19.35	17.34	17.99	17.82	18.47	18.94
8H	4H	17.05	17.78	17.52	18.23	18.70	16.90	17.63	17.37	18.08	18.54
	6H	17.81	18.41	18.31	18.91	19.38	17.49	18.09	17.99	18.59	19.06
	8H	18.14	18.68	18.65	19.19	19.68	17.71	18.25	18.23	18.76	19.25
	12H	18.42	18.89	18.93	19.39	19.95	17.90	18.37	18.41	18.87	19.43
12H	4H	17.07	17.72	17.55	18.20	18.67	16.94	17.59	17.42	18.07	18.54
	6H	17.86	18.40	18.37	18.91	19.40	17.56	18.10	18.08	18.61	19.10
	8H	18.25	18.73	18.76	19.22	19.79	17.84	18.32	18.35	18.81	19.38