

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: P1057894

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057894
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)
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-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

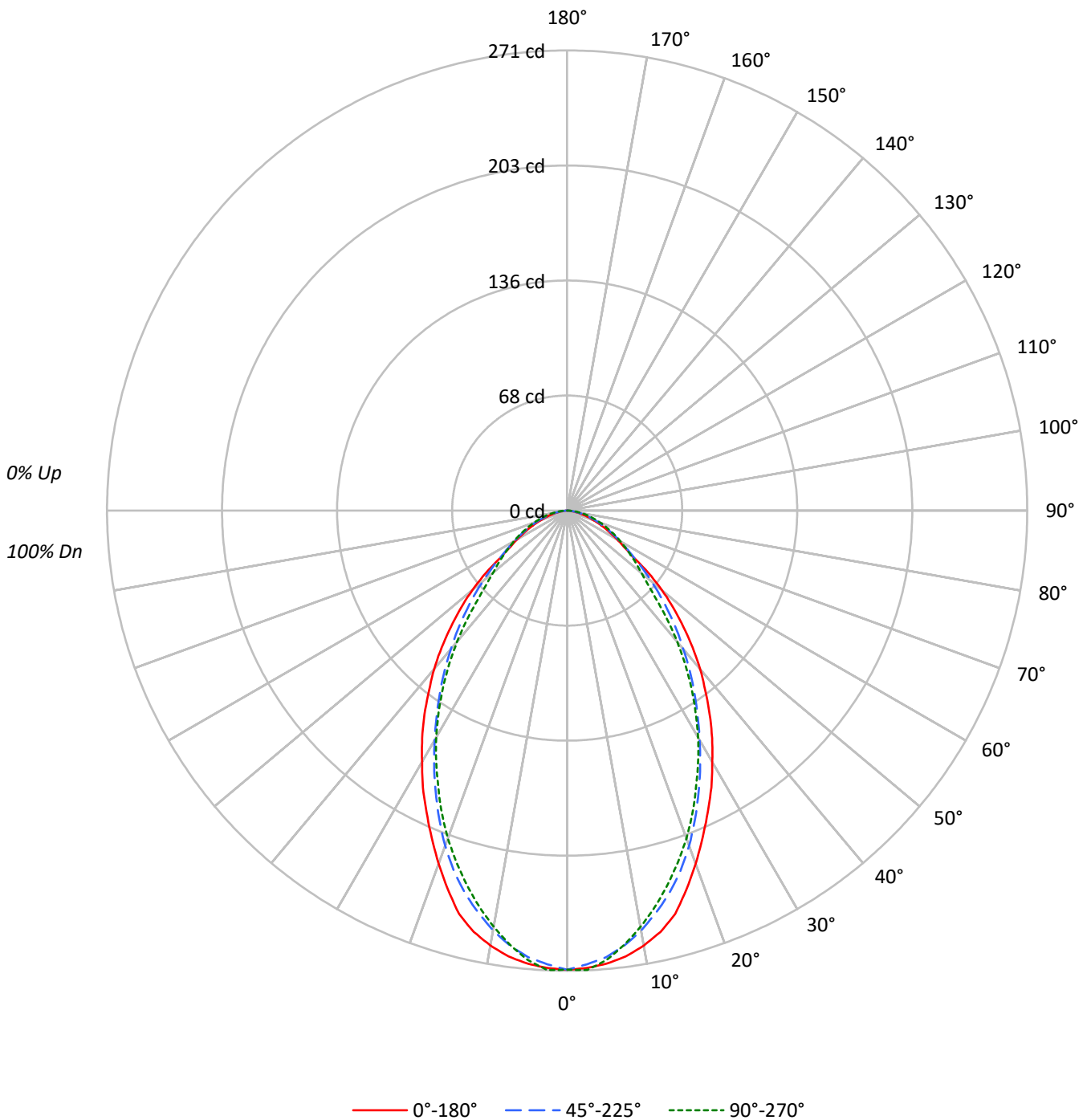
Lumens per Lamp: N/A
Luminaire Lumens: 410.7 lumens
Efficiency: N/A
Efficacy: 32.9 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1057894

CATALOG NUMBER: S122RDRP-S290D840-X4F0-XX-UDD-WVL-B

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	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4990	4990	4990
5°	4960	4890	4922
10°	4874	4703	4664
15°	4698	4451	4359
20°	4346	4126	4033
25°	3989	3726	3657
30°	3641	3322	3286
35°	3298	2940	2872
40°	2936	2563	2428
45°	2529	2202	1944
50°	2090	1854	1631
55°	1509	1538	1467
60°	1255	1318	1336
65°	1070	1148	1223
70°	885	1020	1117
75°	734	863	1012
80°	553	691	914
85°	191	360	826

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2529 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.0	6.1
10°-20°	65.8	16.0
20°-30°	85.2	20.7
30°-40°	83.6	20.3
40°-50°	65.8	16.0
50°-60°	43.1	10.5
60°-70°	26.3	6.4
70°-80°	13.1	3.2
80°-90°	2.8	0.7
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°	176.0	42.9
0°-40°	259.6	63.2
0°-60°	368.5	89.7
0°-90°	410.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	410.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	270	270	270	270	270	
5°	268	268	264	266	266	25
15°	246	242	233	230	228	68
25°	196	190	183	182	180	90
35°	146	138	130	130	128	91
45°	97	91	84	78	74	75
55°	47	50	48	46	46	45
65°	24	25	26	28	28	24
75°	10	11	12	14	14	11
85°	1	1	2	3	4	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	270.4	270.4	270.4	270.4	270.4
2.5°	269.6	270.0	267.4	270.0	270.8
5°	267.8	267.8	264.0	265.7	265.7
7.5°	264.8	264.4	258.4	258.4	257.9
10°	260.1	258.4	251.0	249.7	248.9
12.5°	254.1	251.0	242.4	240.3	239.0
15°	245.9	242.4	233.0	229.9	228.2
17.5°	233.8	230.4	222.2	218.7	217.0
20°	221.3	216.2	210.1	207.1	205.4
22.5°	208.4	202.4	196.8	194.6	192.9
25°	195.9	189.5	183.0	182.1	179.6
27.5°	183.9	176.1	169.7	169.2	167.1
30°	170.9	162.8	155.9	156.3	154.2
32.5°	158.9	151.1	143.0	143.4	140.8
35°	146.4	138.2	130.5	130.0	127.5
37.5°	133.5	125.7	118.4	116.7	114.1
40°	121.9	114.1	106.4	103.3	100.8
42.5°	109.4	102.5	95.6	90.9	87.4
45°	96.9	90.9	84.4	78.4	74.5
47.5°	84.8	80.1	74.5	67.2	64.6
50°	72.8	69.3	64.6	58.1	56.8
52.5°	60.3	59.0	56.0	51.7	51.2
55°	46.9	49.5	47.8	46.1	45.6
57.5°	39.6	40.0	41.3	40.9	40.9
60°	34.0	34.0	35.7	36.2	36.2
62.5°	28.9	29.3	31.0	31.9	31.9
65°	24.5	25.0	26.3	27.6	28.0
67.5°	20.2	21.1	22.4	23.7	24.1
70°	16.4	17.2	18.9	20.2	20.7
72.5°	13.3	13.8	15.5	16.8	17.2
75°	10.3	10.8	12.1	13.8	14.2
77.5°	7.3	8.2	9.5	10.8	11.6
80°	5.2	5.6	6.5	8.2	8.6
82.5°	3.0	3.4	4.3	5.6	6.0
85°	0.9	1.3	1.7	3.0	3.9
87.5°	0.0	0.0	0.0	0.9	1.7
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	11.70	13.10	12.07	13.41	13.72	11.89	13.28	12.25	13.59	13.91
	3H	12.83	14.08	13.21	14.41	14.77	13.35	14.59	13.72	14.92	15.28
	4H	13.19	14.35	13.59	14.70	15.08	13.89	15.05	14.29	15.40	15.78
	6H	13.37	14.44	13.78	14.81	15.20	14.30	15.37	14.71	15.74	16.13
	8H	13.40	14.41	13.83	14.80	15.21	14.43	15.44	14.85	15.83	16.24
	12H	13.38	14.35	13.81	14.74	15.17	14.51	15.48	14.94	15.86	16.29
4H	2H	12.16	13.32	12.56	13.67	14.06	12.31	13.48	12.72	13.83	14.21
	3H	13.50	14.46	13.91	14.86	15.26	13.98	14.94	14.40	15.34	15.75
	4H	13.95	14.80	14.38	15.22	15.66	14.65	15.51	15.08	15.93	16.37
	6H	14.22	14.96	14.68	15.41	15.87	15.18	15.93	15.65	16.37	16.84
	8H	14.26	14.96	14.73	15.40	15.87	15.35	16.05	15.82	16.49	16.96
	12H	14.26	14.87	14.74	15.35	15.83	15.47	16.09	15.96	16.57	17.04
8H	4H	14.16	14.85	14.63	15.30	15.77	14.80	15.49	15.27	15.94	16.41
	6H	14.51	15.08	15.01	15.57	16.05	15.43	16.00	15.93	16.50	16.98
	8H	14.59	15.10	15.10	15.61	16.10	15.67	16.18	16.18	16.69	17.18
	12H	14.60	15.05	15.12	15.55	16.11	15.85	16.30	16.36	16.79	17.36
12H	4H	14.17	14.79	14.66	15.27	15.74	14.79	15.40	15.27	15.88	16.36
	6H	14.53	15.04	15.05	15.56	16.05	15.43	15.94	15.95	16.45	16.94
	8H	14.65	15.10	15.16	15.59	16.16	15.70	16.15	16.21	16.65	17.21