

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: P1057948

Luminaire Tested: S122RDRP-S290D950-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057948
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-S290D950-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: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

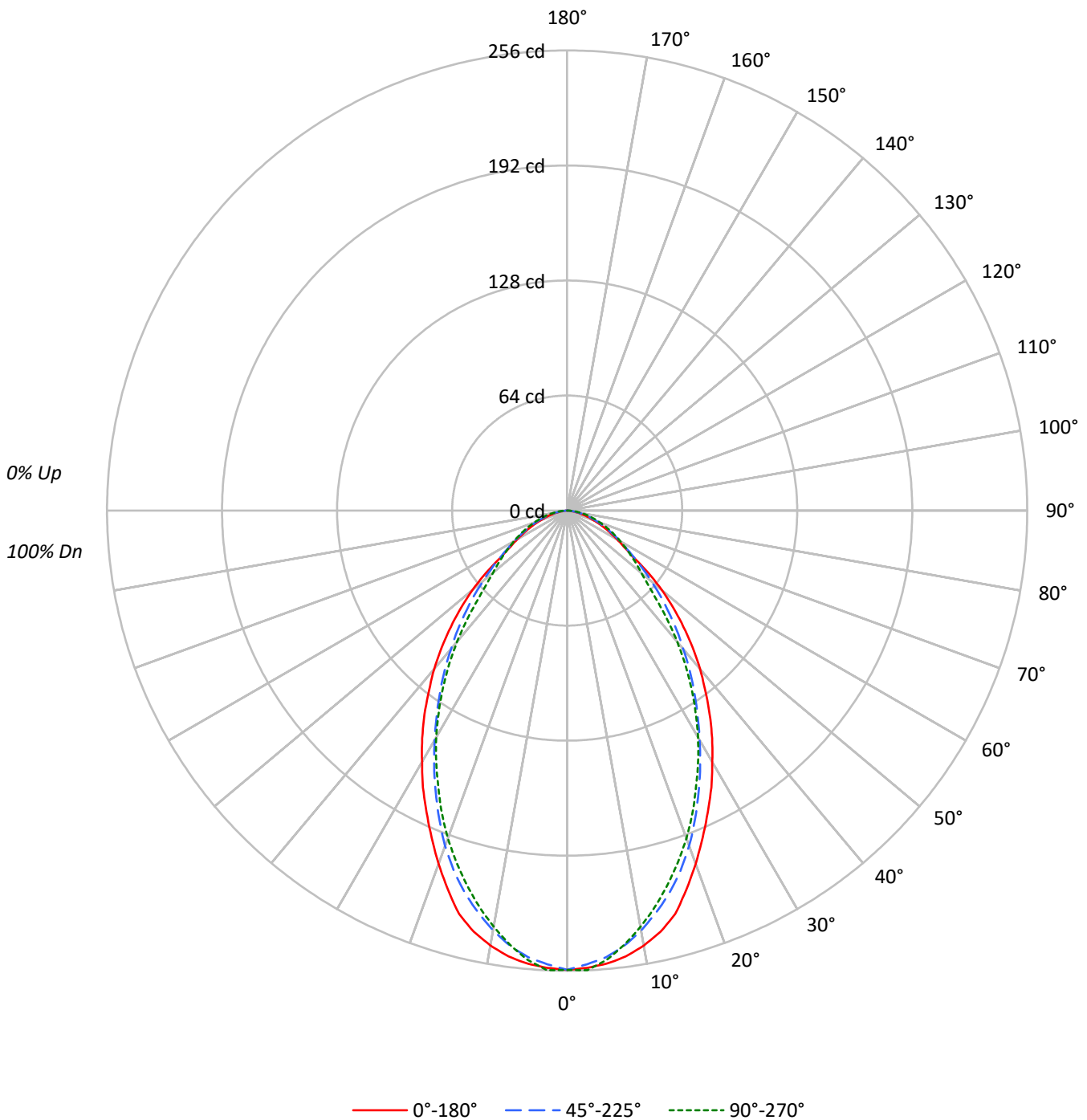
Lumens per Lamp: N/A
Luminaire Lumens: 388.0 lumens
Efficiency: N/A
Efficacy: 31.0 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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

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CATALOG NUMBER: S122RDRP-S290D950-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	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					100			
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77					77			
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68					68			
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61					61			
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54					54			
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49					49			
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44					44			
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41					41			
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37					37			
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34					34			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4715	4715	4715
5°	4686	4620	4649
10°	4604	4444	4405
15°	4438	4205	4119
20°	4106	3898	3810
25°	3769	3520	3453
30°	3441	3139	3102
35°	3115	2777	2712
40°	2773	2421	2293
45°	2388	2080	1837
50°	1972	1751	1542
55°	1425	1454	1387
60°	1185	1247	1262
65°	1013	1083	1153
70°	836	966	1052
75°	699	813	955
80°	521	648	861
85°	169	339	783

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2388 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.6	6.1
10°-20°	62.2	16.0
20°-30°	80.5	20.7
30°-40°	78.9	20.3
40°-50°	62.1	16.0
50°-60°	40.7	10.5
60°-70°	24.8	6.4
70°-80°	12.4	3.2
80°-90°	2.7	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°	166.3	42.9
0°-40°	245.2	63.2
0°-60°	348.1	89.7
0°-90°	388.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	388.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	256	256	256	256	256	
5°	253	253	249	251	251	24
15°	232	229	220	217	216	65
25°	185	179	173	172	170	85
35°	138	131	123	123	120	86
45°	92	86	80	74	70	71
55°	44	47	45	44	43	42
65°	23	24	25	26	26	23
75°	10	10	11	13	13	10
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°	255.5	255.5	255.5	255.5	255.5
2.5°	254.6	255.0	252.6	255.0	255.9
5°	253.0	253.0	249.4	251.0	251.0
7.5°	250.2	249.8	244.1	244.1	243.7
10°	245.7	244.1	237.2	235.9	235.1
12.5°	240.0	237.2	229.0	227.0	225.8
15°	232.3	229.0	220.1	217.2	215.6
17.5°	220.9	217.6	209.9	206.6	205.0
20°	209.1	204.2	198.5	195.7	194.0
22.5°	196.9	191.2	185.9	183.9	182.2
25°	185.1	179.0	172.9	172.1	169.6
27.5°	173.7	166.4	160.3	159.9	157.8
30°	161.5	153.8	147.3	147.7	145.6
32.5°	150.1	142.8	135.0	135.5	133.0
35°	138.3	130.6	123.3	122.8	120.4
37.5°	126.1	118.8	111.9	110.2	107.8
40°	115.1	107.8	100.5	97.6	95.2
42.5°	103.3	96.8	90.3	85.8	82.6
45°	91.5	85.8	79.7	74.0	70.4
47.5°	80.1	75.7	70.4	63.5	61.0
50°	68.7	65.5	61.0	54.9	53.7
52.5°	56.9	55.7	52.9	48.8	48.4
55°	44.3	46.8	45.2	43.5	43.1
57.5°	37.4	37.8	39.1	38.6	38.6
60°	32.1	32.1	33.8	34.2	34.2
62.5°	27.3	27.7	29.3	30.1	30.1
65°	23.2	23.6	24.8	26.0	26.4
67.5°	19.1	19.9	21.2	22.4	22.8
70°	15.5	16.3	17.9	19.1	19.5
72.5°	12.6	13.0	14.6	15.9	16.3
75°	9.8	10.2	11.4	13.0	13.4
77.5°	6.9	7.7	8.9	10.2	11.0
80°	4.9	5.3	6.1	7.7	8.1
82.5°	2.8	3.3	4.1	5.3	5.7
85°	0.8	1.2	1.6	2.8	3.7
87.5°	0.0	0.0	0.0	0.8	1.6
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	11.50	12.90	11.87	13.21	13.53	11.68	13.08	12.05	13.39	13.71
	3H	12.64	13.88	13.02	14.21	14.58	13.14	14.39	13.52	14.72	15.08
	4H	12.99	14.15	13.39	14.50	14.89	13.69	14.85	14.09	15.20	15.58
	6H	13.18	14.25	13.59	14.62	15.01	14.10	15.17	14.51	15.54	15.93
	8H	13.20	14.22	13.63	14.61	15.01	14.23	15.24	14.66	15.63	16.04
	12H	13.19	14.16	13.62	14.54	14.97	14.31	15.28	14.74	15.67	16.10
4H	2H	11.96	13.13	12.36	13.48	13.86	12.11	13.27	12.51	13.62	14.00
	3H	13.30	14.26	13.72	14.66	15.07	13.78	14.74	14.20	15.14	15.55
	4H	13.75	14.61	14.18	15.03	15.47	14.45	15.31	14.88	15.73	16.17
	6H	14.02	14.76	14.48	15.21	15.67	14.98	15.73	15.44	16.17	16.64
	8H	14.07	14.76	14.53	15.21	15.67	15.15	15.85	15.62	16.29	16.76
	12H	14.06	14.67	14.54	15.16	15.63	15.27	15.89	15.76	16.37	16.84
8H	4H	13.96	14.66	14.43	15.10	15.57	14.60	15.29	15.06	15.74	16.21
	6H	14.31	14.88	14.81	15.37	15.85	15.23	15.80	15.73	16.29	16.77
	8H	14.39	14.90	14.91	15.41	15.90	15.46	15.97	15.98	16.49	16.98
	12H	14.40	14.85	14.92	15.35	15.92	15.65	16.10	16.16	16.59	17.16
12H	4H	13.97	14.59	14.46	15.07	15.54	14.58	15.20	15.07	15.68	16.15
	6H	14.33	14.85	14.85	15.36	15.85	15.22	15.73	15.74	16.25	16.74
	8H	14.45	14.90	14.97	15.40	15.97	15.50	15.95	16.01	16.44	17.01