

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: P1057912

Luminaire Tested: S122RDRP-S290D927-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057912
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-S290D927-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: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

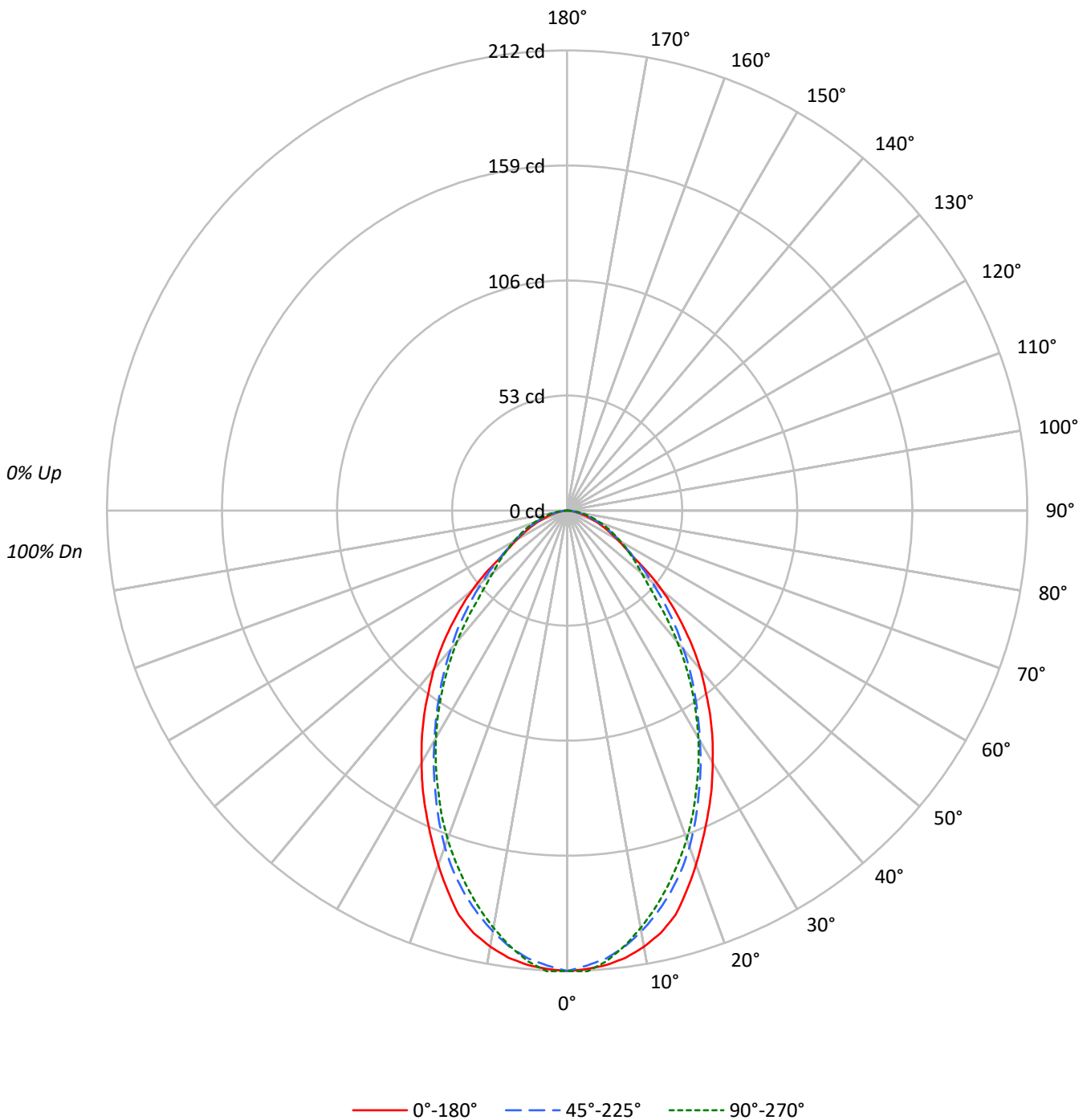
Lumens per Lamp: N/A
Luminaire Lumens: 322.2 lumens
Efficiency: N/A
Efficacy: 25.8 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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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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°	3914	3914	3914
5°	3892	3836	3860
10°	3822	3689	3657
15°	3685	3490	3420
20°	3409	3236	3163
25°	3129	2924	2869
30°	2857	2606	2576
35°	2586	2304	2253
40°	2303	2009	1903
45°	1983	1728	1524
50°	1639	1455	1280
55°	1184	1206	1152
60°	985	1033	1048
65°	843	899	961
70°	691	804	874
75°	577	677	791
80°	436	542	723
85°	148	296	635

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1983 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.6	6.1
10°-20°	51.6	16.0
20°-30°	66.8	20.7
30°-40°	65.5	20.3
40°-50°	51.6	16.0
50°-60°	33.8	10.5
60°-70°	20.6	6.4
70°-80°	10.3	3.2
80°-90°	2.2	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°	138.1	42.9
0°-40°	203.6	63.2
0°-60°	289.1	89.7
0°-90°	322.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	322.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	212	212	212	212	212	
5°	210	210	207	208	208	20
15°	193	190	183	180	179	54
25°	154	149	144	143	141	71
35°	115	108	102	102	100	72
45°	76	71	66	62	58	59
55°	37	39	38	36	36	35
65°	19	20	21	22	22	19
75°	8	8	10	11	11	9
85°	1	1	1	2	3	1
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	212.1	212.1	212.1	212.1	212.1
2.5°	211.4	211.8	209.8	211.8	212.5
5°	210.1	210.1	207.1	208.4	208.4
7.5°	207.7	207.4	202.7	202.7	202.3
10°	204.0	202.7	196.9	195.9	195.2
12.5°	199.3	196.9	190.2	188.5	187.5
15°	192.9	190.2	182.7	180.4	179.0
17.5°	183.4	180.7	174.3	171.6	170.2
20°	173.6	169.6	164.8	162.5	161.1
22.5°	163.5	158.8	154.4	152.7	151.3
25°	153.7	148.6	143.6	142.9	140.9
27.5°	144.2	138.2	133.1	132.7	131.1
30°	134.1	127.7	122.3	122.6	120.9
32.5°	124.6	118.6	112.1	112.5	110.5
35°	114.8	108.4	102.3	102.0	100.0
37.5°	104.7	98.6	92.9	91.5	89.5
40°	95.6	89.5	83.4	81.1	79.0
42.5°	85.8	80.4	75.0	71.3	68.6
45°	76.0	71.3	66.2	61.5	58.4
47.5°	66.5	62.8	58.4	52.7	50.7
50°	57.1	54.4	50.7	45.6	44.6
52.5°	47.3	46.3	43.9	40.5	40.2
55°	36.8	38.8	37.5	36.1	35.8
57.5°	31.1	31.4	32.4	32.1	32.1
60°	26.7	26.7	28.0	28.4	28.4
62.5°	22.6	23.0	24.3	25.0	25.0
65°	19.3	19.6	20.6	21.6	22.0
67.5°	15.9	16.6	17.6	18.6	18.9
70°	12.8	13.5	14.9	15.9	16.2
72.5°	10.5	10.8	12.2	13.2	13.5
75°	8.1	8.4	9.5	10.8	11.1
77.5°	5.7	6.4	7.4	8.4	9.1
80°	4.1	4.4	5.1	6.4	6.8
82.5°	2.4	2.7	3.4	4.4	4.7
85°	0.7	1.0	1.4	2.4	3.0
87.5°	0.0	0.0	0.0	0.7	1.4
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	10.86	12.26	11.23	12.57	12.89	11.05	12.44	11.41	12.75	13.07
	3H	12.00	13.24	12.38	13.57	13.93	12.50	13.75	12.88	14.08	14.44
	4H	12.35	13.51	12.75	13.86	14.24	13.04	14.21	13.45	14.56	14.94
	6H	12.53	13.60	12.94	13.97	14.36	13.46	14.53	13.87	14.90	15.29
	8H	12.56	13.58	12.99	13.97	14.37	13.58	14.60	14.01	14.99	15.39
	12H	12.55	13.52	12.98	13.90	14.33	13.66	14.64	14.10	15.02	15.45
4H	2H	11.32	12.48	11.72	12.83	13.21	11.47	12.63	11.87	12.98	13.37
	3H	12.66	13.62	13.07	14.02	14.42	13.14	14.10	13.56	14.50	14.91
	4H	13.10	13.96	13.54	14.38	14.82	13.81	14.67	14.24	15.08	15.53
	6H	13.37	14.12	13.84	14.56	15.03	14.34	15.08	14.80	15.53	15.99
	8H	13.42	14.11	13.89	14.56	15.03	14.51	15.20	14.98	15.65	16.12
	12H	13.42	14.03	13.90	14.51	14.99	14.63	15.24	15.11	15.72	16.20
8H	4H	13.32	14.01	13.78	14.46	14.93	13.96	14.65	14.42	15.10	15.56
	6H	13.66	14.23	14.16	14.73	15.21	14.59	15.15	15.09	15.65	16.13
	8H	13.74	14.25	14.26	14.77	15.26	14.82	15.33	15.34	15.84	16.33
	12H	13.76	14.21	14.27	14.71	15.27	15.00	15.45	15.52	15.95	16.52
12H	4H	13.33	13.94	13.81	14.43	14.90	13.94	14.56	14.43	15.04	15.51
	6H	13.69	14.20	14.21	14.71	15.20	14.58	15.09	15.10	15.60	16.09
	8H	13.81	14.26	14.32	14.75	15.32	14.86	15.31	15.37	15.80	16.37