

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: P1057908

Luminaire Tested: S122RDRP-S290D927-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057908  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S290D927-X4F0-XX-UDD-BVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

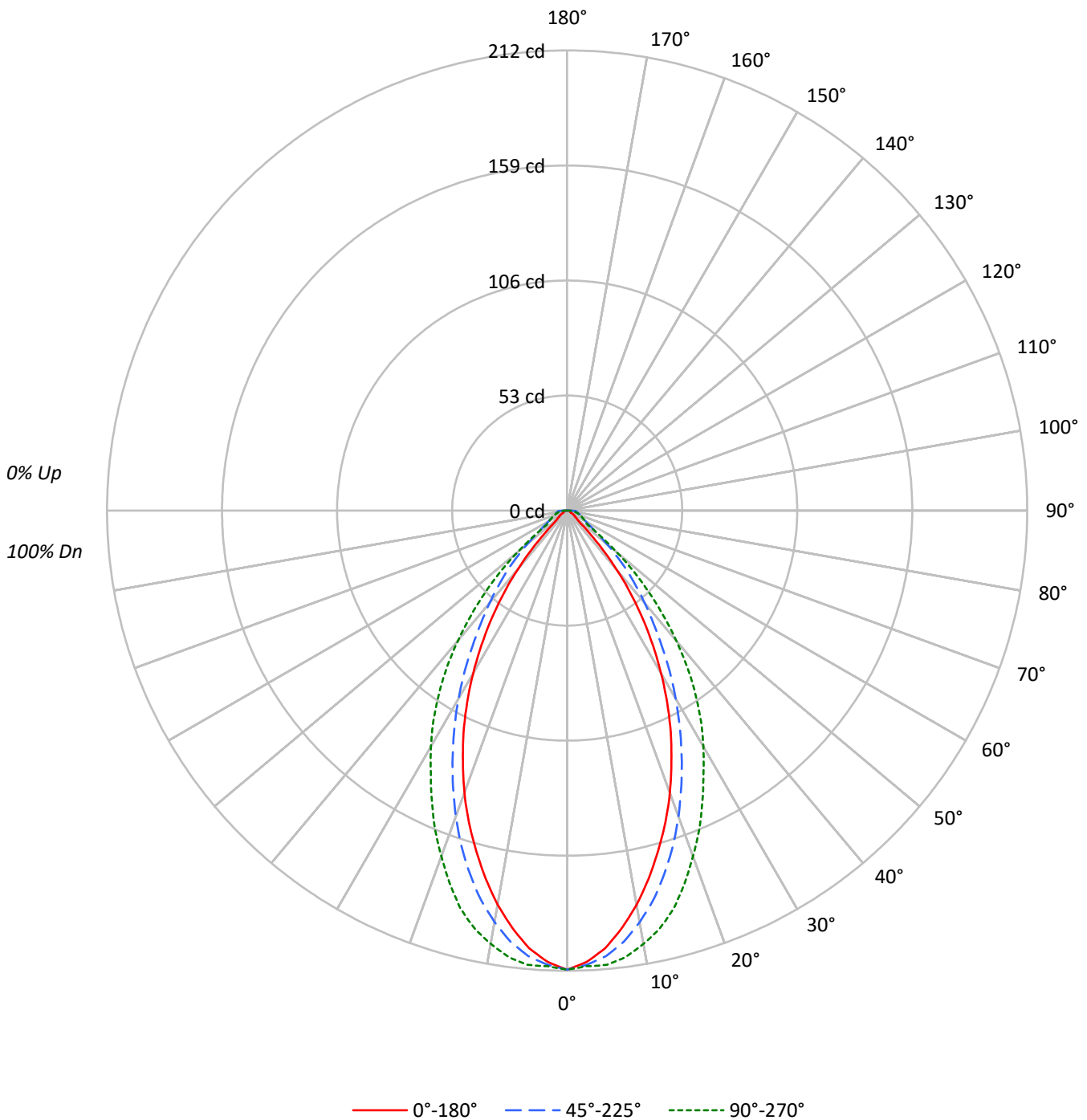
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 230.2 lumens  
Efficiency: N/A  
Efficacy: 18.4 lumens/watt  
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91  
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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	73
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61
6	82	71	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42

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

	0°	45°	90°
0°	3903	3903	3903
5°	3747	3816	3892
10°	3455	3607	3798
15°	3097	3309	3626
20°	2718	2944	3328
25°	2301	2541	3003
30°	1845	2133	2674
35°	1365	1707	2318
40°	855	1337	1884
45°	337	1007	1396
50°	167	680	855
55°	132	447	380
60°	100	362	351
65°	74	341	341
70°	92	345	345
75°	100	385	364
80°	149	499	393
85°	296	868	572

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 87.5°  
 Luminance: 1565 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	19.3	8.4
10°-20°	48.8	21.2
20°-30°	58.4	25.4
30°-40°	49.2	21.4
40°-50°	28.0	12.2
50°-60°	11.0	4.8
60°-70°	7.0	3.0
70°-80°	5.2	2.2
80°-90°	3.3	1.4
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°	126.6	55.0
0°-40°	175.7	76.3
0°-60°	214.8	93.3
0°-90°	230.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	230.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	212	212	212	212	212	
5°	202	207	206	208	210	19
15°	162	168	173	183	190	45
25°	113	118	125	138	148	51
35°	61	66	76	92	103	38
45°	13	23	39	48	54	12
55°	4	9	14	14	12	4
65°	2	8	8	7	8	2
75°	1	5	5	5	5	2
85°	1	4	4	4	3	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	211.5	211.5	211.5	211.5	211.5
2.5°	208.1	211.8	209.4	209.8	210.1
5°	202.3	206.7	206.0	208.4	210.1
7.5°	193.9	198.6	200.3	204.3	207.4
10°	184.4	189.8	192.5	198.9	202.7
12.5°	173.6	179.7	183.7	191.8	197.2
15°	162.1	167.8	173.2	183.4	189.8
17.5°	150.6	156.3	162.1	173.2	180.0
20°	138.4	143.8	149.9	161.7	169.5
22.5°	125.5	131.3	137.4	149.5	159.0
25°	113.0	118.1	124.8	137.7	147.5
27.5°	99.8	104.9	112.3	125.5	136.0
30°	86.6	91.7	100.1	113.7	125.5
32.5°	73.4	78.8	88.0	102.9	114.7
35°	60.6	66.0	75.8	92.0	102.9
37.5°	48.0	54.1	65.0	80.9	91.0
40°	35.5	42.6	55.5	69.7	78.2
42.5°	23.7	32.5	46.7	58.5	65.6
45°	12.9	22.7	38.6	48.4	53.5
47.5°	7.1	14.5	30.8	38.6	41.6
50°	5.8	10.1	23.7	29.4	29.8
52.5°	4.7	9.1	17.6	21.0	19.3
55°	4.1	8.8	13.9	14.2	11.8
57.5°	3.4	8.5	11.5	10.1	10.1
60°	2.7	8.5	9.8	9.1	9.5
62.5°	2.0	8.5	8.8	8.1	8.5
65°	1.7	7.8	7.8	7.4	7.8
67.5°	1.7	7.1	7.1	6.8	7.1
70°	1.7	6.8	6.4	6.4	6.4
72.5°	1.4	6.1	6.1	5.8	5.8
75°	1.4	5.4	5.4	5.1	5.1
77.5°	1.4	5.1	5.1	4.7	4.4
80°	1.4	4.4	4.7	4.4	3.7
82.5°	1.4	4.1	4.4	4.1	3.0
85°	1.4	3.7	4.1	3.7	2.7
87.5°	1.0	3.7	3.7	3.0	2.0
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	2.46	3.68	2.82	3.99	4.30	4.41	5.63	4.78	5.95	6.26
	3H	3.99	5.08	4.37	5.41	5.77	6.40	7.48	6.78	7.82	8.18
	4H	4.55	5.57	4.96	5.92	6.30	7.33	8.34	7.73	8.69	9.08
	6H	5.13	6.06	5.54	6.43	6.82	8.21	9.14	8.62	9.51	9.91
	8H	5.43	6.31	5.86	6.70	7.11	8.61	9.49	9.04	9.88	10.29
	12H	5.80	6.64	6.24	7.03	7.46	9.05	9.89	9.48	10.27	10.70
4H	2H	3.63	4.65	4.04	5.00	5.38	5.04	6.05	5.45	6.41	6.79
	3H	5.83	6.66	6.24	7.07	7.47	7.30	8.13	7.71	8.54	8.94
	4H	6.88	7.63	7.31	8.05	8.49	8.38	9.13	8.82	9.55	10.00
	6H	7.78	8.43	8.25	8.88	9.35	9.49	10.13	9.95	10.58	11.05
	8H	8.18	8.79	8.65	9.23	9.71	10.01	10.61	10.48	11.06	11.53
	12H	8.61	9.15	9.10	9.63	10.10	10.58	11.11	11.07	11.60	12.07
8H	4H	7.68	8.28	8.15	8.73	9.20	8.87	9.48	9.35	9.93	10.40
	6H	9.06	9.56	9.57	10.06	10.54	10.27	10.76	10.77	11.26	11.74
	8H	9.79	10.24	10.32	10.76	11.25	11.01	11.45	11.53	11.97	12.46
	12H	10.55	10.94	11.07	11.44	12.01	11.84	12.23	12.35	12.72	13.30
12H	4H	7.84	8.37	8.33	8.86	9.33	8.98	9.51	9.46	9.99	10.47
	6H	9.39	9.84	9.92	10.36	10.85	10.48	10.93	11.01	11.45	11.94
	8H	10.32	10.71	10.83	11.21	11.78	11.37	11.77	11.89	12.26	12.83