

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058245

Luminaire Tested: S122RDR-H1005D930-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058245  
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: S122RDR-H1005D930-X4F0-XX-UDD-WVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

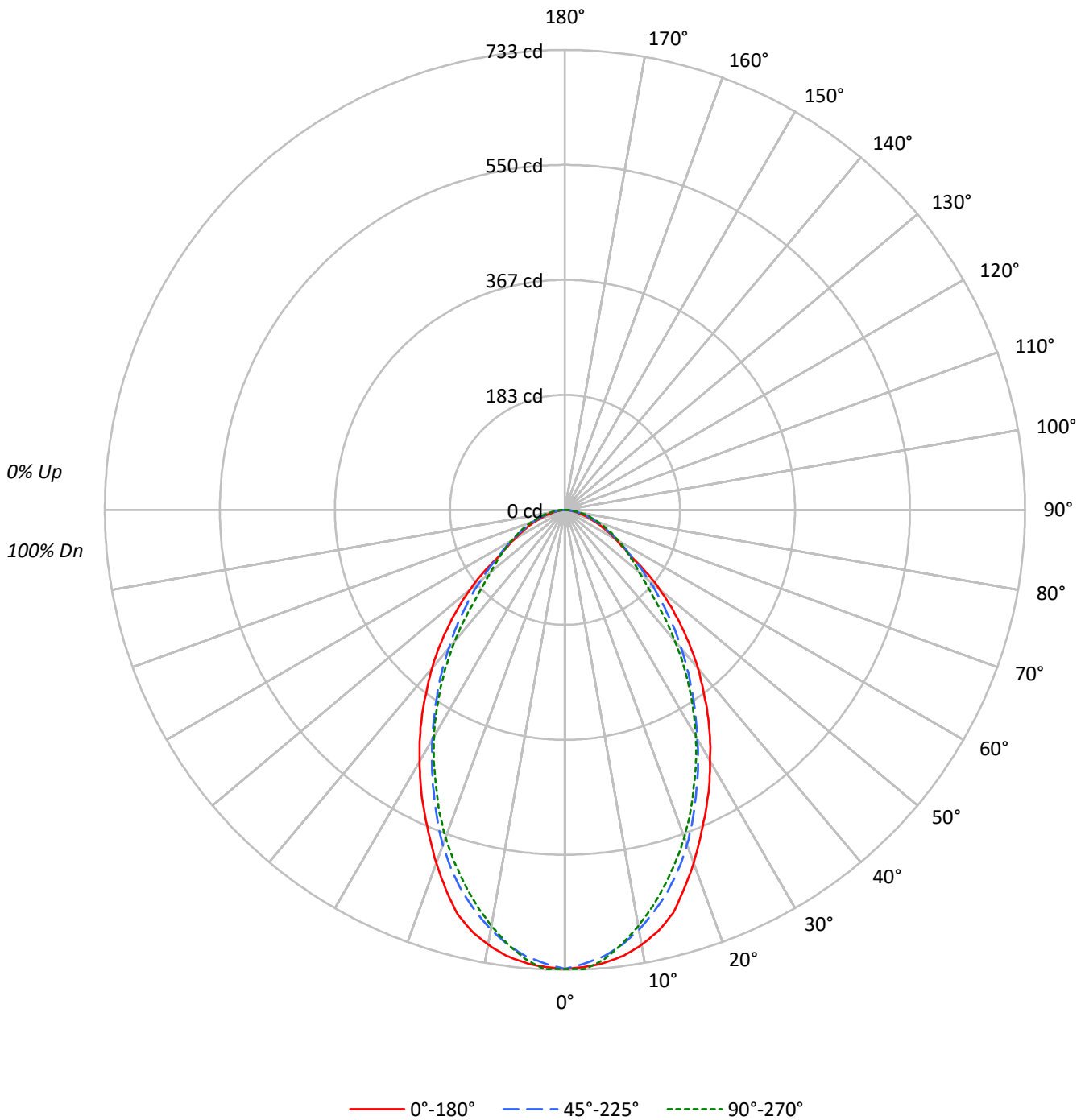
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1111.3 lumens  
Efficiency: N/A  
Efficacy: 30.4 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): 36.5  
Input Voltage (V): 120  
Input Current (Ain): 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	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°	13502	13502	13502
5°	13424	13231	13316
10°	13187	12728	12619
15°	12709	12043	11798
20°	11760	11165	10914
25°	10795	10082	9893
30°	9857	8987	8887
35°	8925	7954	7769
40°	7942	6933	6569
45°	6842	5960	5261
50°	5652	5018	4415
55°	4086	4160	3973
60°	3399	3569	3613
65°	2899	3104	3305
70°	2390	2768	3016
75°	1996	2324	2745
80°	1488	1860	2476
85°	487	995	2223

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6842 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.6	6.1
10°-20°	178.1	16.0
20°-30°	230.5	20.7
30°-40°	226.1	20.3
40°-50°	178.0	16.0
50°-60°	116.7	10.5
60°-70°	71.1	6.4
70°-80°	35.5	3.2
80°-90°	7.6	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°	476.3	42.9
0°-40°	702.4	63.2
0°-60°	997.1	89.7
0°-90°	1111.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1111.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	732	732	732	732	732	
5°	725	725	714	719	719	69
15°	665	656	630	622	618	185
25°	530	513	495	493	486	244
35°	396	374	353	352	345	247
45°	262	246	228	212	202	202
55°	127	134	129	125	124	121
65°	66	68	71	75	76	66
75°	28	29	33	37	38	30
85°	2	4	5	8	10	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	731.7	731.7	731.7	731.7	731.7
2.5°	729.4	730.6	723.6	730.6	732.9
5°	724.7	724.7	714.3	718.9	718.9
7.5°	716.6	715.4	699.1	699.1	697.9
10°	703.8	699.1	679.3	675.8	673.5
12.5°	687.5	679.3	656.0	650.2	646.7
15°	665.3	656.0	630.4	622.2	617.6
17.5°	632.7	623.4	601.2	591.9	587.3
20°	598.9	584.9	568.6	560.5	555.8
22.5°	564.0	547.6	532.5	526.7	522.0
25°	530.2	512.7	495.2	492.9	485.9
27.5°	497.5	476.6	459.1	457.9	452.1
30°	462.6	440.4	421.8	423.0	417.1
32.5°	430.0	409.0	386.8	388.0	381.0
35°	396.2	374.0	353.1	351.9	344.9
37.5°	361.2	340.2	320.4	315.8	308.8
40°	329.7	308.8	287.8	279.6	272.7
42.5°	296.0	277.3	258.7	245.9	236.5
45°	262.2	245.9	228.4	212.1	201.6
47.5°	229.5	216.7	201.6	181.8	174.8
50°	196.9	187.6	174.8	157.3	153.8
52.5°	163.1	159.6	151.5	139.8	138.7
55°	127.0	134.0	129.3	124.7	123.5
57.5°	107.2	108.4	111.9	110.7	110.7
60°	92.1	92.1	96.7	97.9	97.9
62.5°	78.1	79.2	83.9	86.2	86.2
65°	66.4	67.6	71.1	74.6	75.7
67.5°	54.8	57.1	60.6	64.1	65.3
70°	44.3	46.6	51.3	54.8	55.9
72.5°	36.1	37.3	41.9	45.4	46.6
75°	28.0	29.1	32.6	37.3	38.5
77.5°	19.8	22.1	25.6	29.1	31.5
80°	14.0	15.1	17.5	22.1	23.3
82.5°	8.2	9.3	11.7	15.1	16.3
85°	2.3	3.5	4.7	8.2	10.5
87.5°	0.0	0.0	0.0	2.3	4.7
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	15.17	16.56	15.53	16.88	17.19	15.35	16.74	15.71	17.05	17.37
	3H	16.30	17.54	16.68	17.87	18.24	16.81	18.05	17.18	18.38	18.74
	4H	16.65	17.81	17.05	18.16	18.55	17.35	18.51	17.75	18.86	19.24
	6H	16.84	17.91	17.25	18.28	18.67	17.76	18.83	18.17	19.20	19.59
	8H	16.86	17.88	17.29	18.27	18.67	17.89	18.90	18.32	19.30	19.70
	12H	16.85	17.82	17.28	18.20	18.63	17.97	18.94	18.40	19.33	19.76
4H	2H	15.63	16.79	16.03	17.14	17.52	15.77	16.94	16.17	17.29	17.67
	3H	16.97	17.92	17.38	18.33	18.73	17.44	18.40	17.86	18.80	19.21
	4H	17.41	18.27	17.84	18.68	19.13	18.11	18.97	18.54	19.39	19.83
	6H	17.68	18.42	18.14	18.87	19.33	18.64	19.39	19.10	19.83	20.30
	8H	17.72	18.42	18.19	18.86	19.33	18.81	19.51	19.28	19.95	20.42
	12H	17.72	18.33	18.20	18.82	19.29	18.93	19.55	19.42	20.03	20.50
8H	4H	17.62	18.32	18.09	18.76	19.23	18.26	18.95	18.73	19.40	19.87
	6H	17.97	18.54	18.47	19.03	19.51	18.89	19.46	19.39	19.95	20.43
	8H	18.05	18.56	18.56	19.07	19.56	19.12	19.63	19.64	20.15	20.64
	12H	18.06	18.51	18.57	19.01	19.57	19.31	19.76	19.82	20.25	20.82
12H	4H	17.63	18.25	18.12	18.73	19.20	18.24	18.86	18.73	19.34	19.81
	6H	17.99	18.50	18.51	19.02	19.51	18.88	19.39	19.40	19.91	20.40
	8H	18.11	18.56	18.62	19.05	19.62	19.16	19.61	19.67	20.10	20.67