

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: P1058362

Luminaire Tested: S122RDR-H485D830-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058362  
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-H485D830-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, 80 CRI LEDS  
Ballast/Driver: -

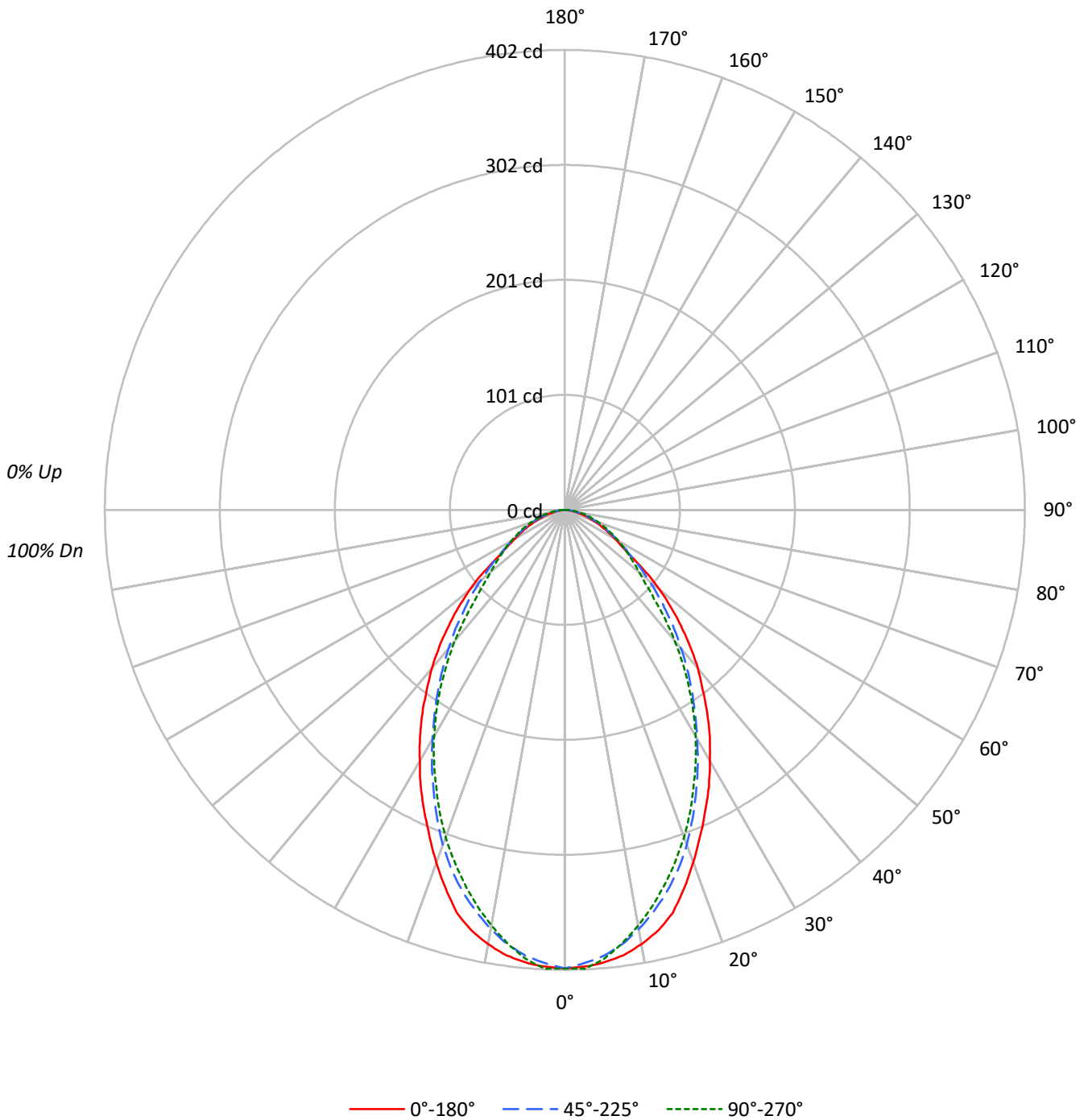
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 608.9 lumens  
Efficiency: N/A  
Efficacy: 35.0 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): 17.4  
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	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°	7398	7398	7398
5°	7355	7250	7296
10°	7225	6974	6914
15°	6965	6598	6465
20°	6445	6119	5979
25°	5915	5524	5420
30°	5401	4924	4871
35°	4890	4357	4257
40°	4353	3799	3599
45°	3747	3265	2884
50°	3097	2750	2420
55°	2239	2281	2178
60°	1860	1956	1978
65°	1589	1698	1812
70°	1311	1516	1651
75°	1091	1276	1504
80°	818	1020	1360
85°	275	550	1207

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3747 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.1	6.1
10°-20°	97.6	16.0
20°-30°	126.3	20.7
30°-40°	123.9	20.3
40°-50°	97.6	16.0
50°-60°	63.9	10.5
60°-70°	38.9	6.4
70°-80°	19.5	3.2
80°-90°	4.2	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°	261.0	42.9
0°-40°	384.9	63.2
0°-60°	546.4	89.7
0°-90°	608.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	608.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	401	401	401	401	401	
5°	397	397	391	394	394	38
15°	365	359	345	341	338	102
25°	290	281	271	270	266	134
35°	217	205	193	193	189	135
45°	144	135	125	116	110	111
55°	70	73	71	68	68	66
65°	36	37	39	41	42	36
75°	15	16	18	20	21	16
85°	1	2	3	4	6	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	400.9	400.9	400.9	400.9	400.9
2.5°	399.7	400.3	396.5	400.3	401.6
5°	397.1	397.1	391.4	393.9	393.9
7.5°	392.6	392.0	383.1	383.1	382.4
10°	385.6	383.1	372.2	370.3	369.0
12.5°	376.7	372.2	359.4	356.3	354.3
15°	364.6	359.4	345.4	340.9	338.4
17.5°	346.7	341.6	329.4	324.3	321.8
20°	328.2	320.5	311.6	307.1	304.5
22.5°	309.0	300.1	291.8	288.6	286.0
25°	290.5	280.9	271.3	270.1	266.2
27.5°	272.6	261.1	251.5	250.9	247.7
30°	253.5	241.3	231.1	231.8	228.6
32.5°	235.6	224.1	212.0	212.6	208.8
35°	217.1	204.9	193.4	192.8	189.0
37.5°	197.9	186.4	175.6	173.0	169.2
40°	180.7	169.2	157.7	153.2	149.4
42.5°	162.2	151.9	141.7	134.7	129.6
45°	143.6	134.7	125.1	116.2	110.5
47.5°	125.8	118.8	110.5	99.6	95.8
50°	107.9	102.8	95.8	86.2	84.3
52.5°	89.4	87.5	83.0	76.6	76.0
55°	69.6	73.4	70.9	68.3	67.7
57.5°	58.7	59.4	61.3	60.7	60.7
60°	50.4	50.4	53.0	53.6	53.6
62.5°	42.8	43.4	46.0	47.2	47.2
65°	36.4	37.0	38.9	40.9	41.5
67.5°	30.0	31.3	33.2	35.1	35.8
70°	24.3	25.5	28.1	30.0	30.6
72.5°	19.8	20.4	23.0	24.9	25.5
75°	15.3	16.0	17.9	20.4	21.1
77.5°	10.9	12.1	14.0	16.0	17.2
80°	7.7	8.3	9.6	12.1	12.8
82.5°	4.5	5.1	6.4	8.3	8.9
85°	1.3	1.9	2.6	4.5	5.7
87.5°	0.0	0.0	0.0	1.3	2.6
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	13.08	14.47	13.44	14.79	15.10	13.26	14.66	13.62	14.97	15.28
	3H	14.21	15.45	14.59	15.78	16.15	14.72	15.96	15.10	16.29	16.66
	4H	14.56	15.72	14.96	16.07	16.45	15.26	16.42	15.66	16.77	17.15
	6H	14.75	15.82	15.16	16.19	16.58	15.67	16.74	16.09	17.11	17.50
	8H	14.77	15.79	15.20	16.18	16.58	15.80	16.81	16.23	17.21	17.61
	12H	14.76	15.73	15.19	16.11	16.54	15.88	16.85	16.31	17.23	17.66
4H	2H	13.53	14.70	13.93	15.05	15.43	13.68	14.85	14.09	15.20	15.58
	3H	14.87	15.83	15.28	16.23	16.64	15.35	16.31	15.77	16.72	17.12
	4H	15.32	16.18	15.75	16.59	17.04	16.02	16.88	16.45	17.30	17.74
	6H	15.59	16.33	16.05	16.78	17.24	16.55	17.30	17.01	17.74	18.21
	8H	15.63	16.33	16.10	16.77	17.24	16.72	17.42	17.19	17.86	18.33
	12H	15.63	16.25	16.11	16.73	17.20	16.84	17.46	17.33	17.94	18.41
8H	4H	15.53	16.22	16.00	16.67	17.14	16.17	16.86	16.63	17.31	17.78
	6H	15.88	16.45	16.38	16.94	17.42	16.80	17.37	17.30	17.86	18.34
	8H	15.96	16.47	16.48	16.98	17.47	17.03	17.54	17.55	18.06	18.55
	12H	15.97	16.42	16.49	16.92	17.49	17.22	17.67	17.73	18.16	18.73
12H	4H	15.54	16.16	16.03	16.64	17.11	16.15	16.77	16.64	17.25	17.72
	6H	15.90	16.41	16.42	16.93	17.42	16.79	17.30	17.31	17.82	18.31
	8H	16.02	16.47	16.53	16.96	17.53	17.07	17.52	17.58	18.01	18.58