

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: P1058407

Luminaire Tested: S122RDR-H485D930-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058407  
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-H485D930-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: -

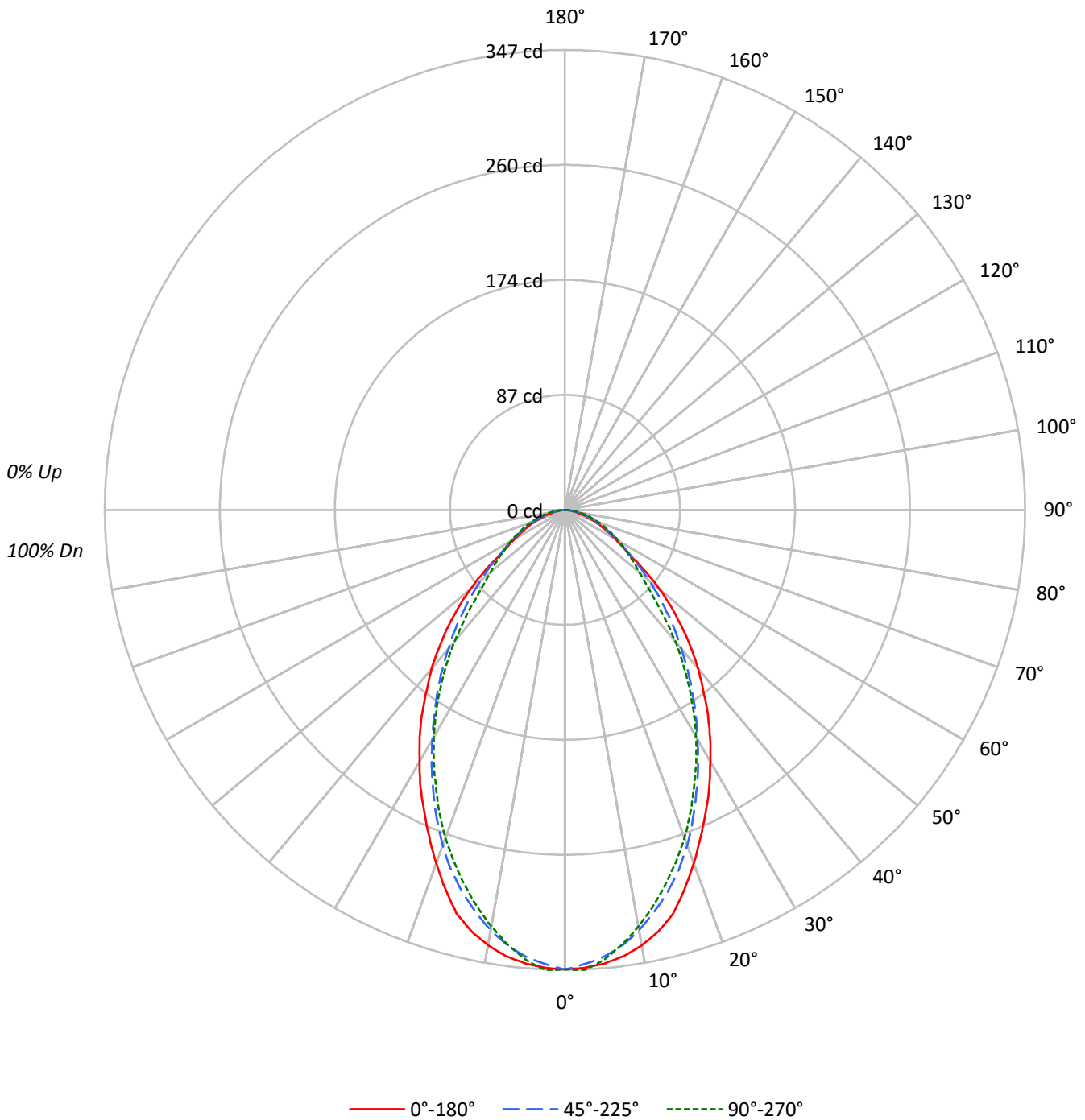
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 526.7 lumens  
Efficiency: N/A  
Efficacy: 30.3 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°	6399	6399	6399
5°	6363	6270	6311
10°	6251	6033	5981
15°	6023	5708	5592
20°	5575	5292	5172
25°	5116	4779	4689
30°	4671	4259	4212
35°	4230	3769	3683
40°	3765	3286	3112
45°	3244	2824	2492
50°	2678	2377	2093
55°	1937	1972	1882
60°	1609	1690	1712
65°	1375	1471	1567
70°	1133	1311	1430
75°	948	1105	1298
80°	701	882	1169
85°	233	466	1059

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3244 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	32.1	6.1
10°-20°	84.4	16.0
20°-30°	109.3	20.7
30°-40°	107.2	20.3
40°-50°	84.4	16.0
50°-60°	55.3	10.5
60°-70°	33.7	6.4
70°-80°	16.8	3.2
80°-90°	3.6	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°	225.7	42.9
0°-40°	332.9	63.2
0°-60°	472.6	89.7
0°-90°	526.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	526.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	347	347	347	347	347	
5°	344	344	338	341	341	32
15°	315	311	299	295	293	88
25°	251	243	235	234	230	116
35°	188	177	167	167	164	117
45°	124	116	108	100	96	96
55°	60	64	61	59	58	57
65°	32	32	34	35	36	31
75°	13	14	16	18	18	14
85°	1	2	2	4	5	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	346.8	346.8	346.8	346.8	346.8
2.5°	345.7	346.3	342.9	346.3	347.4
5°	343.5	343.5	338.5	340.7	340.7
7.5°	339.6	339.1	331.4	331.4	330.8
10°	333.6	331.4	322.0	320.3	319.2
12.5°	325.8	322.0	310.9	308.2	306.5
15°	315.3	310.9	298.8	294.9	292.7
17.5°	299.9	295.5	285.0	280.5	278.3
20°	283.9	277.2	269.5	265.6	263.4
22.5°	267.3	259.6	252.4	249.6	247.4
25°	251.3	243.0	234.7	233.6	230.3
27.5°	235.8	225.9	217.6	217.0	214.3
30°	219.2	208.8	199.9	200.5	197.7
32.5°	203.8	193.8	183.3	183.9	180.6
35°	187.8	177.3	167.3	166.8	163.5
37.5°	171.2	161.3	151.9	149.7	146.3
40°	156.3	146.3	136.4	132.5	129.2
42.5°	140.3	131.4	122.6	116.5	112.1
45°	124.3	116.5	108.2	100.5	95.5
47.5°	108.8	102.7	95.5	86.2	82.8
50°	93.3	88.9	82.8	74.6	72.9
52.5°	77.3	75.7	71.8	66.3	65.7
55°	60.2	63.5	61.3	59.1	58.5
57.5°	50.8	51.4	53.0	52.5	52.5
60°	43.6	43.6	45.8	46.4	46.4
62.5°	37.0	37.6	39.8	40.9	40.9
65°	31.5	32.0	33.7	35.3	35.9
67.5°	26.0	27.1	28.7	30.4	30.9
70°	21.0	22.1	24.3	26.0	26.5
72.5°	17.1	17.7	19.9	21.5	22.1
75°	13.3	13.8	15.5	17.7	18.2
77.5°	9.4	10.5	12.1	13.8	14.9
80°	6.6	7.2	8.3	10.5	11.0
82.5°	3.9	4.4	5.5	7.2	7.7
85°	1.1	1.7	2.2	3.9	5.0
87.5°	0.0	0.0	0.0	1.1	2.2
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	12.58	13.97	12.94	14.28	14.60	12.76	14.15	13.12	14.46	14.78
	3H	13.71	14.95	14.09	15.28	15.65	14.21	15.46	14.59	15.79	16.15
	4H	14.06	15.22	14.46	15.57	15.96	14.76	15.92	15.16	16.27	16.65
	6H	14.24	15.32	14.66	15.68	16.08	15.17	16.24	15.58	16.61	17.00
	8H	14.27	15.29	14.70	15.68	16.08	15.29	16.31	15.72	16.70	17.10
	12H	14.26	15.23	14.69	15.61	16.04	15.38	16.35	15.81	16.73	17.16
4H	2H	13.03	14.20	13.43	14.55	14.93	13.18	14.34	13.58	14.69	15.08
	3H	14.37	15.33	14.79	15.73	16.14	14.85	15.81	15.26	16.21	16.62
	4H	14.82	15.68	15.25	16.09	16.54	15.52	16.38	15.95	16.79	17.24
	6H	15.09	15.83	15.55	16.28	16.74	16.05	16.79	16.51	17.24	17.70
	8H	15.13	15.83	15.60	16.27	16.74	16.22	16.91	16.69	17.36	17.83
	12H	15.13	15.74	15.61	16.23	16.70	16.34	16.96	16.82	17.44	17.91
8H	4H	15.03	15.73	15.50	16.17	16.64	15.67	16.36	16.13	16.81	17.28
	6H	15.38	15.95	15.88	16.44	16.92	16.30	16.87	16.80	17.36	17.84
	8H	15.46	15.97	15.98	16.48	16.97	16.53	17.04	17.05	17.55	18.04
	12H	15.47	15.92	15.99	16.42	16.99	16.72	17.17	17.23	17.66	18.23
12H	4H	15.04	15.66	15.53	16.14	16.61	15.65	16.27	16.14	16.75	17.22
	6H	15.40	15.91	15.92	16.43	16.92	16.29	16.80	16.81	17.31	17.81
	8H	15.52	15.97	16.03	16.46	17.03	16.57	17.02	17.08	17.51	18.08