

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: P1058419

Luminaire Tested: S122RDR-H485D940-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058419  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-21)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H485D940-X4F0-XX-UDD-BVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

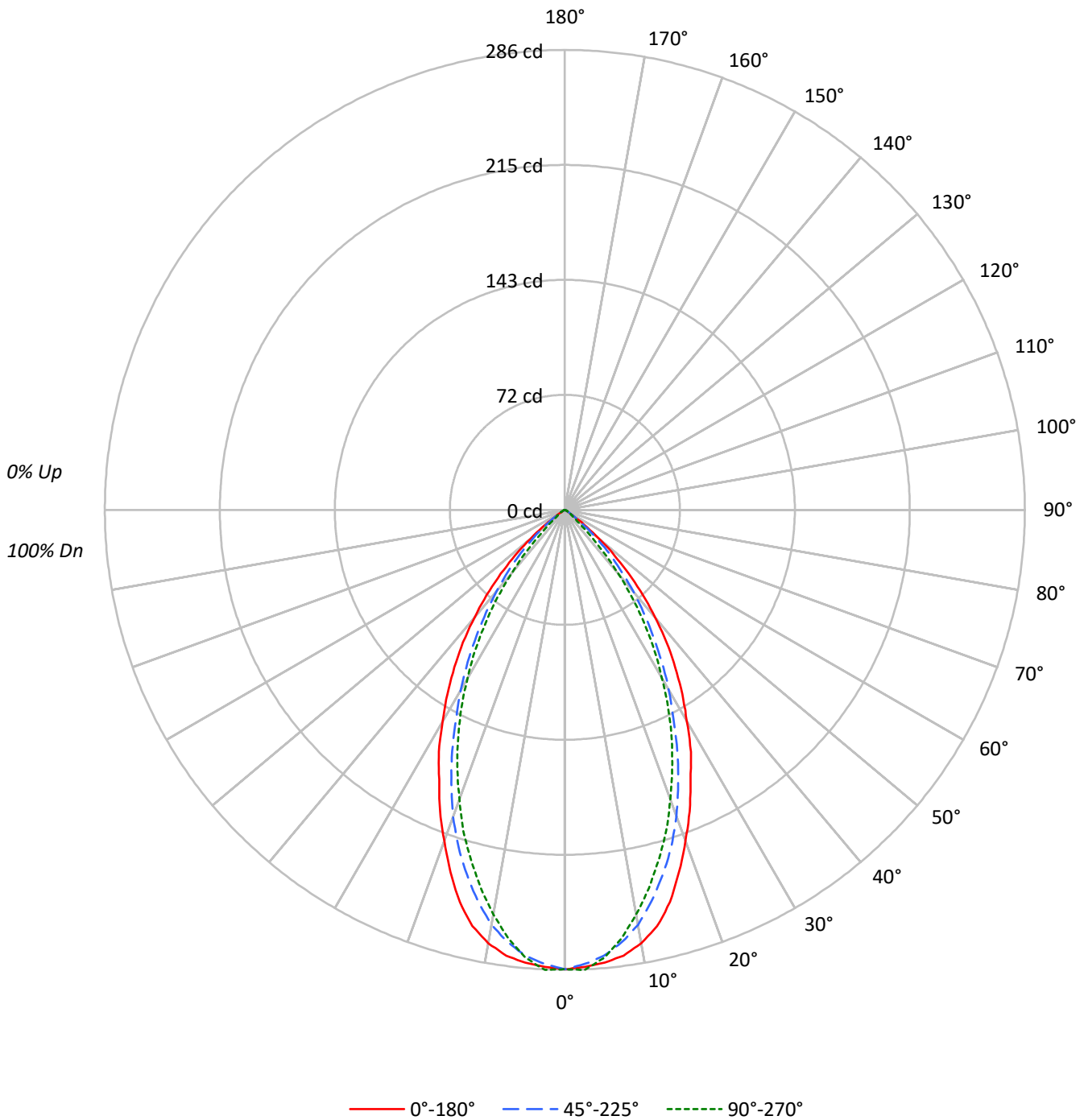
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 268.6 lumens  
Efficiency: N/A  
Efficacy: 15.4 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 0.8 / 0.88  
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	113	110	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95	93				93
2	107	102	98	94	105	100	97	93	97	94	91	94	92	89	91	89	87	86				86
3	101	95	90	85	99	93	89	85	91	87	83	88	85	82	86	83	81	79				79
4	96	88	82	78	94	87	81	77	85	80	76	83	79	75	81	77	75	73				73
5	91	82	76	71	89	81	75	71	79	74	70	77	73	70	76	72	69	67				67
6	86	76	70	66	84	76	70	65	74	69	65	73	68	64	71	67	64	62				62
7	81	71	65	61	80	71	65	61	69	64	60	68	63	60	67	63	60	58				58
8	77	67	61	56	76	66	60	56	65	60	56	64	59	56	63	59	56	54				54
9	73	63	57	53	72	62	57	52	61	56	52	61	56	52	60	55	52	51				51
10	69	59	53	49	68	59	53	49	58	53	49	57	52	49	56	52	49	47				47

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

	0°	45°	90°
0°	5272	5272	5272
5°	5236	5157	5179
10°	5126	4911	4787
15°	4824	4489	4304
20°	4304	3984	3760
25°	3763	3370	3197
30°	3230	2755	2574
35°	2694	2149	1933
40°	2096	1585	1236
45°	1467	1057	535
50°	798	554	189
55°	116	193	135
60°	22	44	89
65°	0	26	52
70°	0	0	32
75°	0	0	0
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1467 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.2	9.8
10°-20°	66.2	24.6
20°-30°	77.1	28.7
30°-40°	61.8	23.0
40°-50°	30.7	11.4
50°-60°	6.0	2.2
60°-70°	0.5	0.2
70°-80°	0.0	0.0
80°-90°	0.0	0.0
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°	169.5	63.1
0°-40°	231.3	86.1
0°-60°	268.0	99.8
0°-90°	268.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	268.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	286	286	286	286	286	
5°	283	283	278	279	280	27
15°	252	248	235	229	225	70
25°	185	176	166	162	157	85
35°	120	108	95	91	86	74
45°	56	50	40	27	20	43
55°	4	7	6	4	4	7
65°	0	0	1	1	1	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	285.7	285.7	285.7	285.7	285.7
2.5°	284.5	285.7	282.7	285.7	286.3
5°	282.7	282.7	278.4	279.0	279.6
7.5°	279.6	278.4	271.2	270.0	268.8
10°	273.6	271.2	262.1	257.3	255.5
12.5°	265.2	261.5	249.4	244.0	241.0
15°	252.5	247.6	235.0	228.9	225.3
17.5°	236.2	231.9	219.9	213.2	209.6
20°	219.2	213.2	202.9	196.3	191.5
22.5°	202.9	195.1	184.2	179.4	174.6
25°	184.8	175.8	165.5	161.9	157.0
27.5°	169.7	158.2	146.2	143.7	139.5
30°	151.6	140.7	129.3	125.6	120.8
32.5°	135.9	123.8	112.3	108.1	103.9
35°	119.6	107.5	95.4	91.2	85.8
37.5°	103.9	92.4	80.3	73.7	68.9
40°	87.0	77.3	65.8	57.4	51.3
42.5°	71.9	63.4	52.5	41.7	35.6
45°	56.2	49.5	40.5	27.2	20.5
47.5°	41.7	36.8	29.6	15.7	10.9
50°	27.8	26.0	19.3	7.9	6.6
52.5°	15.1	16.3	11.5	4.8	5.4
55°	3.6	7.2	6.0	3.6	4.2
57.5°	0.6	1.2	3.0	3.0	3.0
60°	0.6	0.6	1.2	1.8	2.4
62.5°	0.6	0.0	0.6	1.2	1.8
65°	0.0	0.0	0.6	0.6	1.2
67.5°	0.0	0.0	0.0	0.6	0.6
70°	0.0	0.0	0.0	0.6	0.6
72.5°	0.0	0.0	0.0	0.0	0.6
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4H	2H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00