

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: P1058392

Luminaire Tested: S122RDRP-H485D927-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058392  
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: S122RDRP-H485D927-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: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

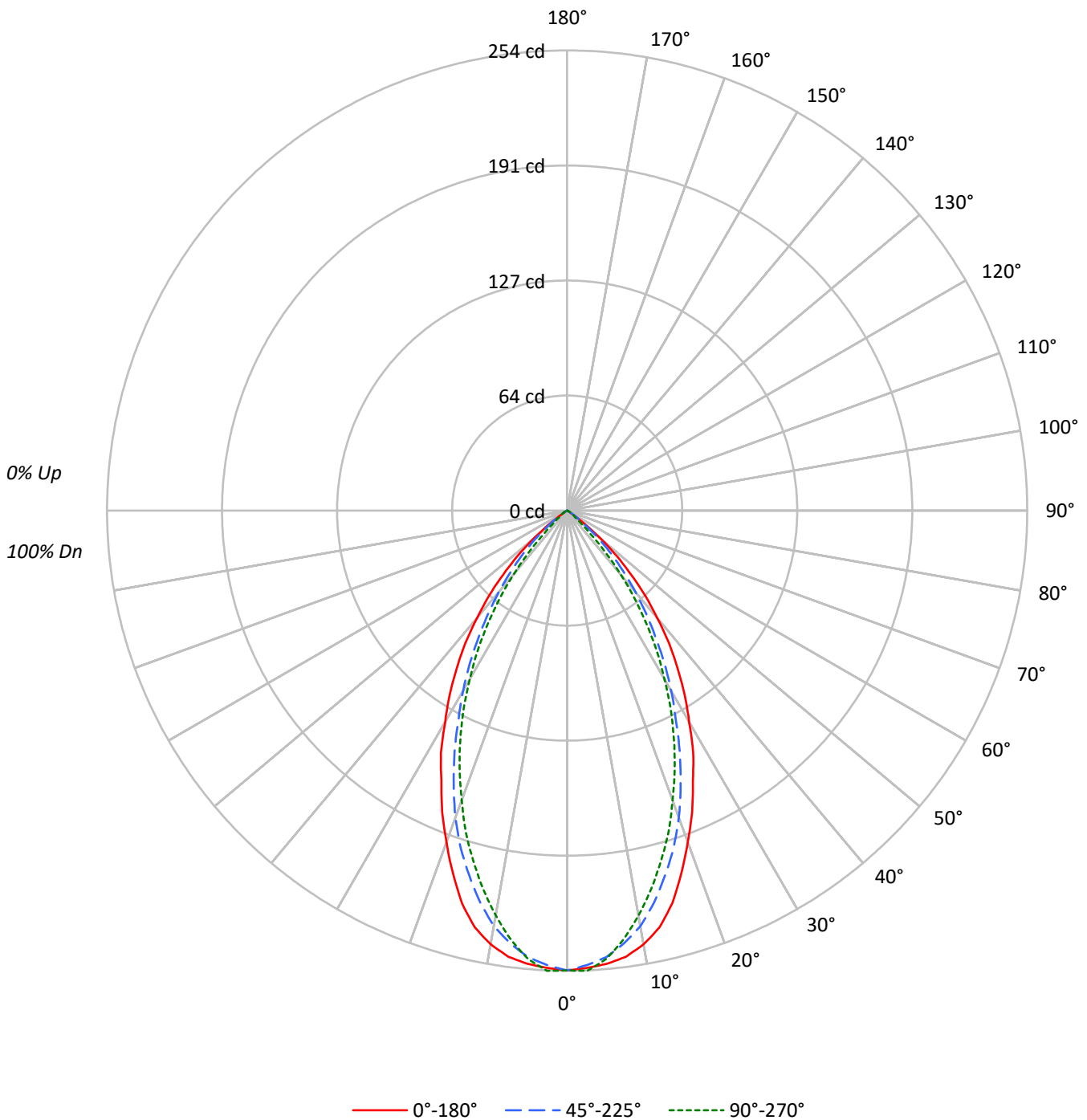
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 238.7 lumens  
Efficiency: N/A  
Efficacy: 13.7 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 (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	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°	4683	4683	4683
5°	4651	4583	4601
10°	4555	4364	4253
15°	4285	3987	3823
20°	3825	3540	3340
25°	3343	2993	2840
30°	2870	2446	2286
35°	2392	1910	1717
40°	1862	1409	1098
45°	1302	939	475
50°	709	494	169
55°	103	174	122
60°	18	41	78
65°	0	22	48
70°	0	0	27
75°	0	0	0
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1302 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	23.3	9.8
10°-20°	58.8	24.6
20°-30°	68.5	28.7
30°-40°	54.9	23.0
40°-50°	27.3	11.4
50°-60°	5.4	2.3
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°	150.6	63.1
0°-40°	205.5	86.1
0°-60°	238.2	99.8
0°-90°	238.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	238.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	254	254	254	254	254	
5°	251	251	247	248	248	24
15°	224	220	209	203	200	62
25°	164	156	147	144	140	76
35°	106	96	85	81	76	66
45°	50	44	36	24	18	39
55°	3	6	5	3	4	6
65°	0	0	0	0	1	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	253.8	253.8	253.8	253.8	253.8
2.5°	252.7	253.8	251.1	253.8	254.3
5°	251.1	251.1	247.4	247.9	248.4
7.5°	248.4	247.4	240.9	239.8	238.8
10°	243.1	240.9	232.9	228.6	227.0
12.5°	235.6	232.3	221.6	216.8	214.1
15°	224.3	220.0	208.7	203.4	200.1
17.5°	209.8	206.0	195.3	189.4	186.2
20°	194.8	189.4	180.3	174.4	170.1
22.5°	180.3	173.3	163.7	159.4	155.1
25°	164.2	156.1	147.0	143.8	139.5
27.5°	150.8	140.6	129.9	127.7	123.9
30°	134.7	125.0	114.8	111.6	107.3
32.5°	120.7	110.0	99.8	96.0	92.3
35°	106.2	95.5	84.8	81.0	76.2
37.5°	92.3	82.1	71.4	65.5	61.2
40°	77.3	68.7	58.5	51.0	45.6
42.5°	63.9	56.3	46.7	37.0	31.7
45°	49.9	44.0	36.0	24.1	18.2
47.5°	37.0	32.7	26.3	14.0	9.7
50°	24.7	23.1	17.2	7.0	5.9
52.5°	13.4	14.5	10.2	4.3	4.8
55°	3.2	6.4	5.4	3.2	3.8
57.5°	0.5	1.1	2.7	2.7	2.7
60°	0.5	0.5	1.1	1.6	2.1
62.5°	0.5	0.0	0.5	1.1	1.6
65°	0.0	0.0	0.5	0.5	1.1
67.5°	0.0	0.0	0.0	0.5	0.5
70°	0.0	0.0	0.0	0.5	0.5
72.5°	0.0	0.0	0.0	0.0	0.5
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