

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: P1058248

Luminaire Tested: S122RDR-H1005D935-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058248  
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-H1005D935-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: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

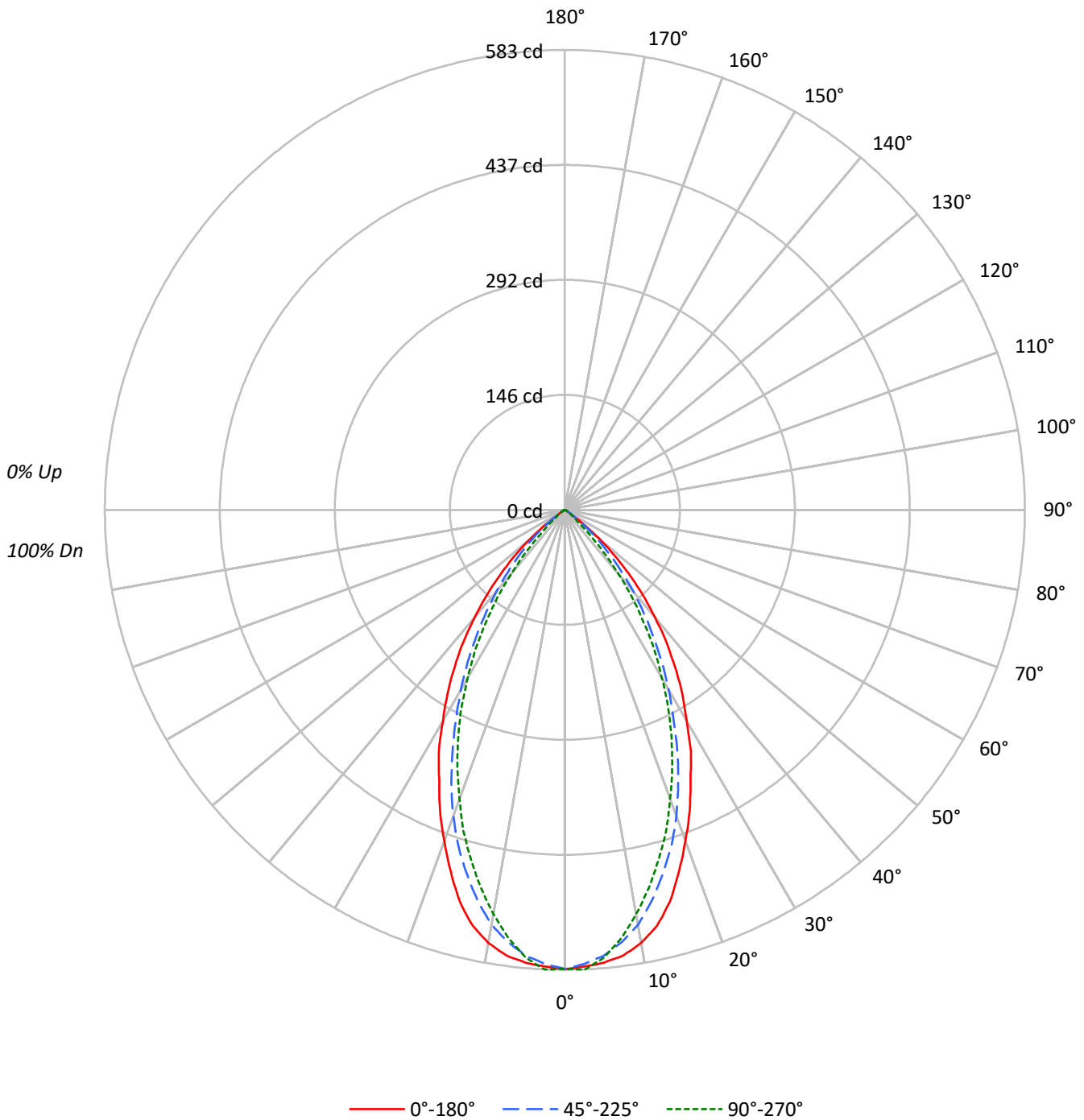
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 547.3 lumens  
Efficiency: N/A  
Efficacy: 15.0 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): 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	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°	10739	10739	10739
5°	10667	10506	10553
10°	10444	10006	9753
15°	9825	9143	8768
20°	8772	8118	7660
25°	7666	6863	6513
30°	6580	5610	5244
35°	5487	4379	3935
40°	4268	3230	2520
45°	2985	2150	1091
50°	1625	1131	388
55°	238	396	277
60°	44	92	181
65°	0	52	109
70°	0	0	65
75°	0	0	0
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2985 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.5	9.8
10°-20°	134.8	24.6
20°-30°	157.1	28.7
30°-40°	125.9	23.0
40°-50°	62.5	11.4
50°-60°	12.3	2.3
60°-70°	1.1	0.2
70°-80°	0.1	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°	345.3	63.1
0°-40°	471.2	86.1
0°-60°	546.1	99.8
0°-90°	547.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	547.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	582	582	582	582	582	
5°	576	576	567	568	570	54
15°	514	504	479	466	459	143
25°	376	358	337	330	320	173
35°	244	219	194	186	175	152
45°	114	101	82	55	42	88
55°	7	15	12	7	9	15
65°	0	0	1	1	2	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°	582.0	582.0	582.0	582.0	582.0
2.5°	579.5	582.0	575.9	582.0	583.2
5°	575.9	575.9	567.2	568.5	569.7
7.5°	569.7	567.2	552.5	550.0	547.6
10°	557.4	552.5	534.0	524.2	520.5
12.5°	540.2	532.8	508.2	497.1	491.0
15°	514.3	504.5	478.6	466.3	459.0
17.5°	481.1	472.5	447.9	434.4	427.0
20°	446.7	434.4	413.4	399.9	390.1
22.5°	413.4	397.4	375.3	365.4	355.6
25°	376.5	358.1	337.1	329.8	319.9
27.5°	345.8	322.4	297.8	292.8	284.2
30°	308.8	286.7	263.3	255.9	246.1
32.5°	276.9	252.2	228.9	220.3	211.6
35°	243.6	219.0	194.4	185.8	174.7
37.5°	211.6	188.3	163.7	150.1	140.3
40°	177.2	157.5	134.1	116.9	104.6
42.5°	146.4	129.2	107.0	84.9	72.6
45°	114.4	100.9	82.4	55.4	41.8
47.5°	84.9	75.1	60.3	32.0	22.1
50°	56.6	52.9	39.4	16.0	13.5
52.5°	30.8	33.2	23.4	9.8	11.1
55°	7.4	14.8	12.3	7.4	8.6
57.5°	1.2	2.5	6.2	6.2	6.2
60°	1.2	1.2	2.5	3.7	4.9
62.5°	1.2	0.0	1.2	2.5	3.7
65°	0.0	0.0	1.2	1.2	2.5
67.5°	0.0	0.0	0.0	1.2	1.2
70°	0.0	0.0	0.0	1.2	1.2
72.5°	0.0	0.0	0.0	0.0	1.2
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