

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: P1058431

Luminaire Tested: S122RDRP-H485D950-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058431  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-20)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-H485D950-X4F0-XX-UDD-SVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

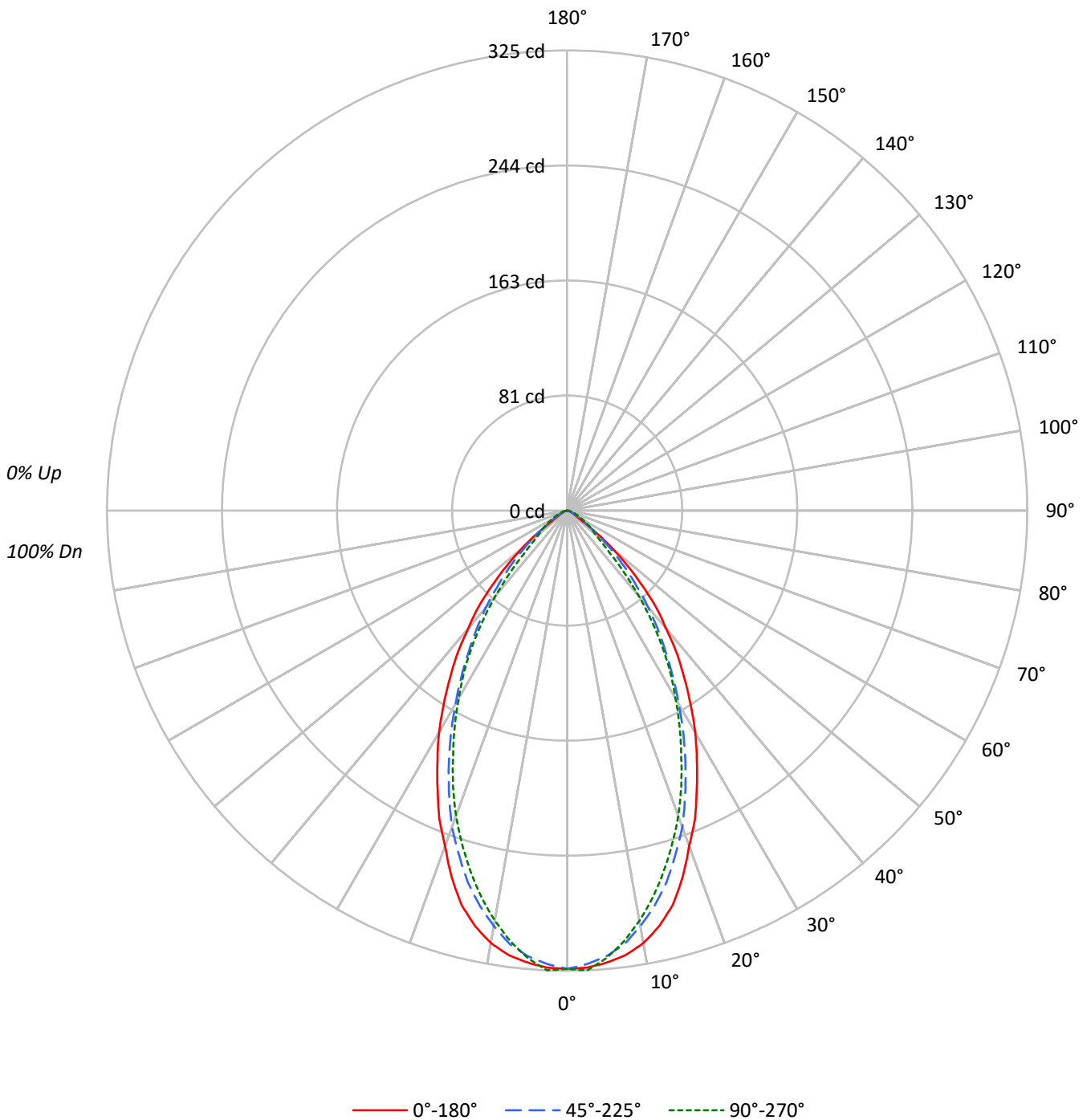
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 348.1 lumens  
Efficiency: N/A  
Efficacy: 20.0 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	81	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64
6	83	73	67	62	82	72	66	62	71	65	61	69	64	61	68	64	60	59
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	47
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	44

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

	0°	45°	90°
0°	5973	5973	5973
5°	5937	5853	5877
10°	5812	5582	5509
15°	5506	5185	5036
20°	4948	4670	4505
25°	4408	4025	3881
30°	3854	3360	3262
35°	3246	2721	2636
40°	2616	2149	1898
45°	1957	1550	1130
50°	1223	1002	741
55°	415	540	602
60°	240	332	476
65°	170	227	367
70°	140	173	281
75°	93	135	228
80°	64	138	202
85°	0	0	127

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1957 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	29.8	8.6
10°-20°	76.4	21.9
20°-30°	92.0	26.4
30°-40°	78.6	22.6
40°-50°	46.0	13.2
50°-60°	16.7	4.8
60°-70°	5.9	1.7
70°-80°	2.4	0.7
80°-90°	0.4	0.1
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°	198.2	56.9
0°-40°	276.8	79.5
0°-60°	339.5	97.5
0°-90°	348.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	348.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	324	324	324	324	324	
5°	320	321	316	317	317	30
15°	288	284	271	266	264	80
25°	216	207	198	194	191	99
35°	144	133	121	120	117	90
45°	75	67	59	50	43	58
55°	13	18	17	17	19	16
65°	4	4	5	7	8	4
75°	1	2	2	3	3	2
85°	0	0	0	1	1	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	323.7	323.7	323.7	323.7	323.7
2.5°	323.1	323.7	320.5	323.7	325.0
5°	320.5	321.1	316.0	317.3	317.3
7.5°	316.6	316.0	308.9	307.6	306.9
10°	310.2	308.2	297.9	295.9	294.0
12.5°	300.5	296.6	285.6	282.4	279.8
15°	288.2	283.7	271.4	266.2	263.6
17.5°	271.4	266.2	254.6	249.4	246.8
20°	252.0	246.8	237.8	232.0	229.4
22.5°	235.8	227.4	217.8	213.9	210.6
25°	216.5	207.4	197.7	194.5	190.6
27.5°	198.4	187.4	177.7	175.1	171.9
30°	180.9	169.3	157.7	157.7	153.1
32.5°	162.2	151.2	138.9	138.3	135.7
35°	144.1	133.1	120.8	119.5	117.0
37.5°	127.3	116.3	104.7	100.8	97.6
40°	108.6	98.9	89.2	82.7	78.8
42.5°	93.7	82.7	73.0	65.3	60.1
45°	75.0	67.2	59.4	49.8	43.3
47.5°	58.2	53.0	46.5	35.5	32.3
50°	42.6	40.1	34.9	26.5	25.8
52.5°	27.1	28.4	25.2	20.7	22.6
55°	12.9	18.1	16.8	17.4	18.7
57.5°	8.4	9.0	12.3	14.2	15.5
60°	6.5	6.5	9.0	11.6	12.9
62.5°	5.2	5.2	7.1	9.7	10.3
65°	3.9	4.5	5.2	7.1	8.4
67.5°	3.2	3.2	3.9	5.8	6.5
70°	2.6	2.6	3.2	4.5	5.2
72.5°	1.9	1.9	2.6	3.9	3.9
75°	1.3	1.9	1.9	2.6	3.2
77.5°	1.3	1.3	1.3	1.9	2.6
80°	0.6	0.6	1.3	1.3	1.9
82.5°	0.6	0.6	0.6	0.6	1.3
85°	0.0	0.0	0.0	0.6	0.6
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	2.07	3.23	2.43	3.54	3.86	5.48	6.65	5.85	6.96	7.27
	3H	2.59	3.61	2.97	3.94	4.31	6.22	7.24	6.60	7.57	7.94
	4H	2.72	3.67	3.12	4.02	4.41	6.43	7.38	6.84	7.73	8.12
	6H	2.79	3.66	3.21	4.03	4.43	6.58	7.45	7.00	7.82	8.22
	8H	2.79	3.61	3.22	4.00	4.41	6.61	7.43	7.04	7.82	8.23
	12H	2.75	3.53	3.19	3.92	4.35	6.61	7.39	7.04	7.77	8.20
4H	2H	2.39	3.33	2.79	3.69	4.07	5.45	6.40	5.86	6.75	7.14
	3H	3.04	3.81	3.46	4.22	4.62	6.33	7.10	6.75	7.51	7.91
	4H	3.28	3.96	3.71	4.38	4.83	6.61	7.30	7.05	7.72	8.16
	6H	3.39	3.98	3.86	4.43	4.90	6.83	7.42	7.30	7.87	8.34
	8H	3.40	3.94	3.87	4.39	4.87	6.88	7.42	7.35	7.87	8.34
	12H	3.36	3.84	3.85	4.32	4.80	6.89	7.37	7.38	7.85	8.33
8H	4H	3.38	3.93	3.86	4.38	4.85	6.54	7.09	7.01	7.54	8.01
	6H	3.54	3.98	4.05	4.48	4.97	6.80	7.24	7.30	7.74	8.22
	8H	3.57	3.97	4.10	4.49	4.98	6.85	7.25	7.38	7.77	8.26
	12H	3.55	3.89	4.07	4.39	4.97	6.90	7.25	7.42	7.75	8.32
12H	4H	3.37	3.85	3.86	4.33	4.81	6.49	6.97	6.98	7.46	7.93
	6H	3.54	3.93	4.07	4.45	4.95	6.75	7.14	7.27	7.66	8.16
	8H	3.60	3.94	4.11	4.44	5.02	6.83	7.17	7.34	7.67	8.25