

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: P1058585

Luminaire Tested: S122RDR-H865D940-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058585  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-59)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H865D940-X4F0-XX-UDD-SVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

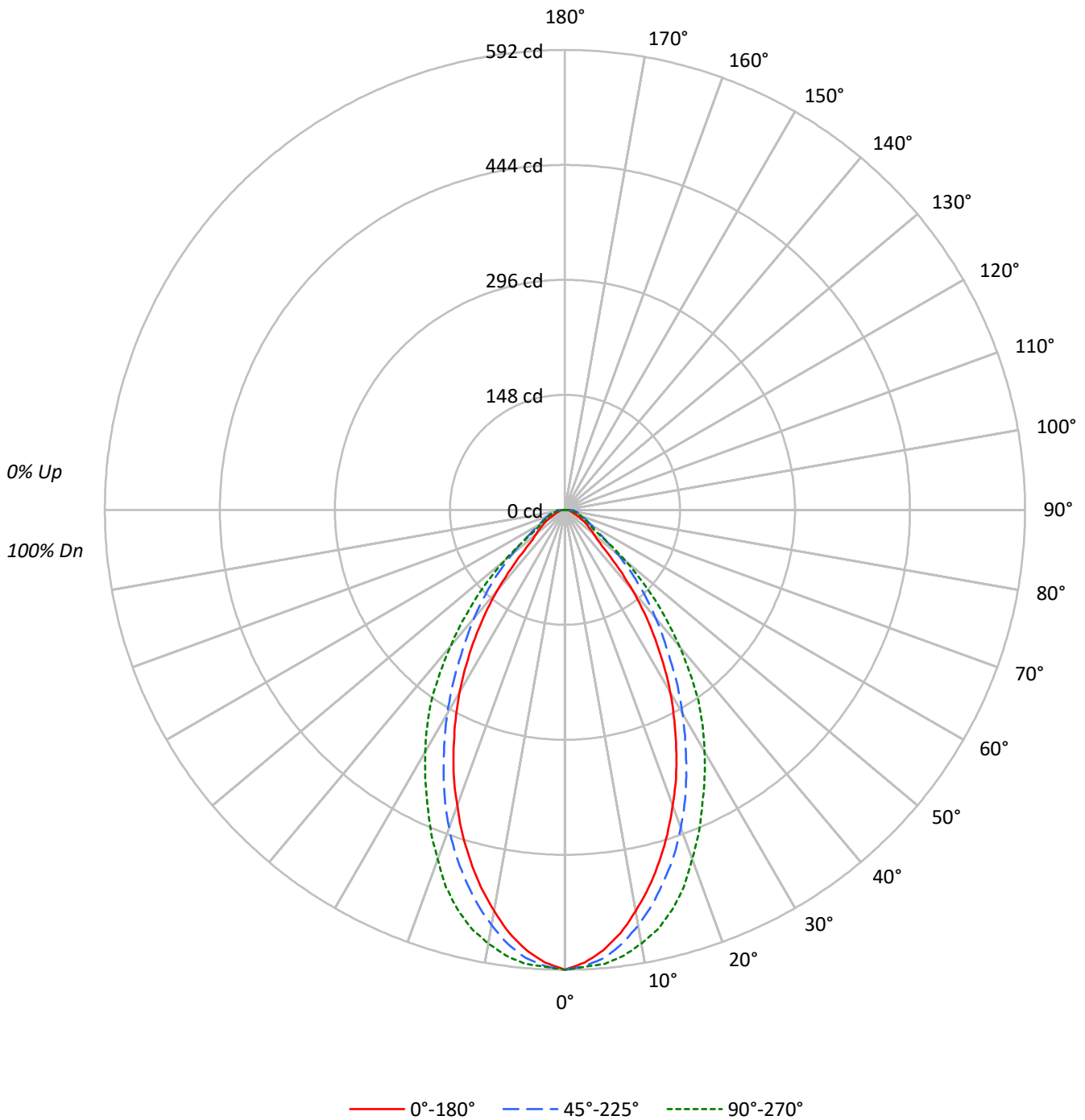
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 714.2 lumens  
Efficiency: N/A  
Efficacy: 22.9 lumens/watt  
Spacing Criteria (0/90/45): 0.82 / 0.97 / 0.94  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 31.2  
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	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72				72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65				65
5	86	75	68	63	84	74	68	63	72	66	62	71	65	61	69	64	61	59				59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54				54
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50				50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46				46
9	67	56	49	45	66	56	49	44	55	49	44	54	48	44	53	48	44	42				42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39				39

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

	0°	45°	90°
0°	10924	10924	10924
5°	10541	10723	10866
10°	9824	10172	10622
15°	8952	9431	10182
20°	7957	8558	9394
25°	6894	7517	8517
30°	5772	6448	7658
35°	4553	5339	6742
40°	3262	4367	5526
45°	1910	3450	4274
50°	1381	2509	2885
55°	1158	1792	1512
60°	926	1450	1292
65°	764	1288	1192
70°	647	1235	1122
75°	620	1326	1091
80°	701	1626	1158
85°	1164	2541	1609

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4274 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.3	7.6
10°-20°	139.0	19.5
20°-30°	170.8	23.9
30°-40°	151.0	21.1
40°-50°	96.4	13.5
50°-60°	47.0	6.6
60°-70°	28.0	3.9
70°-80°	17.9	2.5
80°-90°	9.8	1.4
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°	364.0	51.0
0°-40°	515.0	72.1
0°-60°	658.4	92.2
0°-90°	714.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	714.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	592	592	592	592	592	
5°	569	581	579	581	587	53
15°	469	482	494	516	533	131
25°	339	351	369	392	418	155
35°	202	213	237	270	299	125
45°	73	94	132	149	164	62
55°	36	48	56	52	47	32
65°	18	33	30	27	27	18
75°	9	20	19	16	15	10
85°	6	11	12	11	8	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	592.0	592.0	592.0	592.0	592.0
2.5°	583.3	594.2	587.7	587.7	588.7
5°	569.1	581.1	578.9	581.1	586.6
7.5°	549.4	561.4	563.6	572.4	578.9
10°	524.3	536.3	542.9	557.1	566.9
12.5°	498.1	510.1	519.9	538.5	552.7
15°	468.6	481.7	493.7	515.6	533.0
17.5°	438.0	451.1	466.4	488.3	509.0
20°	405.2	417.3	435.8	456.6	478.4
22.5°	373.6	384.5	404.1	423.8	450.0
25°	338.6	350.6	369.2	392.1	418.3
27.5°	304.7	316.8	335.3	361.5	388.9
30°	270.9	281.8	302.6	329.9	359.4
32.5°	235.9	246.9	269.8	299.3	329.9
35°	202.1	213.0	237.0	269.8	299.3
37.5°	168.2	180.2	207.5	238.1	263.2
40°	135.4	149.6	181.3	207.5	229.4
42.5°	102.7	122.3	156.2	178.0	195.5
45°	73.2	93.9	132.2	148.6	163.8
47.5°	55.7	72.1	109.2	121.2	131.1
50°	48.1	59.0	87.4	96.1	100.5
52.5°	41.5	52.4	69.9	73.2	71.0
55°	36.0	48.1	55.7	52.4	47.0
57.5°	30.6	44.8	45.9	39.3	40.4
60°	25.1	40.4	39.3	33.9	35.0
62.5°	20.8	37.1	33.9	30.6	30.6
65°	17.5	32.8	29.5	27.3	27.3
67.5°	14.2	29.5	26.2	24.0	24.0
70°	12.0	26.2	22.9	20.8	20.8
72.5°	10.9	22.9	20.8	18.6	18.6
75°	8.7	19.7	18.6	16.4	15.3
77.5°	7.6	16.4	16.4	15.3	13.1
80°	6.6	14.2	15.3	13.1	10.9
82.5°	6.6	13.1	13.1	12.0	8.7
85°	5.5	10.9	12.0	10.9	7.6
87.5°	3.3	9.8	9.8	8.7	5.5
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	10.34	11.62	10.70	11.93	12.24	9.86	11.14	10.22	11.45	11.76
	3H	11.51	12.65	11.89	12.98	13.35	11.42	12.56	11.80	12.89	13.26
	4H	11.94	13.00	12.34	13.35	13.74	12.11	13.17	12.51	13.52	13.90
	6H	12.29	13.26	12.70	13.63	14.03	12.75	13.73	13.17	14.10	14.50
	8H	12.48	13.41	12.91	13.80	14.21	13.04	13.97	13.47	14.36	14.76
	12H	12.71	13.59	13.14	13.97	14.40	13.35	14.24	13.79	14.62	15.05
4H	2H	10.84	11.90	11.24	12.25	12.64	10.46	11.52	10.86	11.87	12.26
	3H	12.48	13.36	12.90	13.76	14.17	12.26	13.14	12.67	13.54	13.94
	4H	13.25	14.03	13.68	14.45	14.90	13.10	13.89	13.54	14.31	14.75
	6H	13.85	14.53	14.31	14.98	15.44	13.96	14.64	14.42	15.08	15.55
	8H	14.15	14.79	14.62	15.23	15.71	14.35	14.98	14.82	15.43	15.90
	12H	14.47	15.03	14.95	15.51	15.99	14.78	15.34	15.27	15.83	16.30
8H	4H	13.67	14.30	14.14	14.75	15.22	13.56	14.20	14.03	14.65	15.12
	6H	14.62	15.14	15.12	15.63	16.12	14.67	15.19	15.17	15.69	16.17
	8H	15.16	15.63	15.68	16.15	16.64	15.25	15.71	15.77	16.23	16.72
	12H	15.73	16.14	16.24	16.64	17.21	15.91	16.33	16.43	16.82	17.39
12H	4H	13.74	14.30	14.22	14.78	15.26	13.65	14.21	14.13	14.69	15.17
	6H	14.80	15.27	15.32	15.78	16.28	14.85	15.32	15.38	15.84	16.33
	8H	15.49	15.91	16.01	16.40	16.97	15.56	15.98	16.08	16.47	17.04