

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: P1058586

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058586  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-56)  
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-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

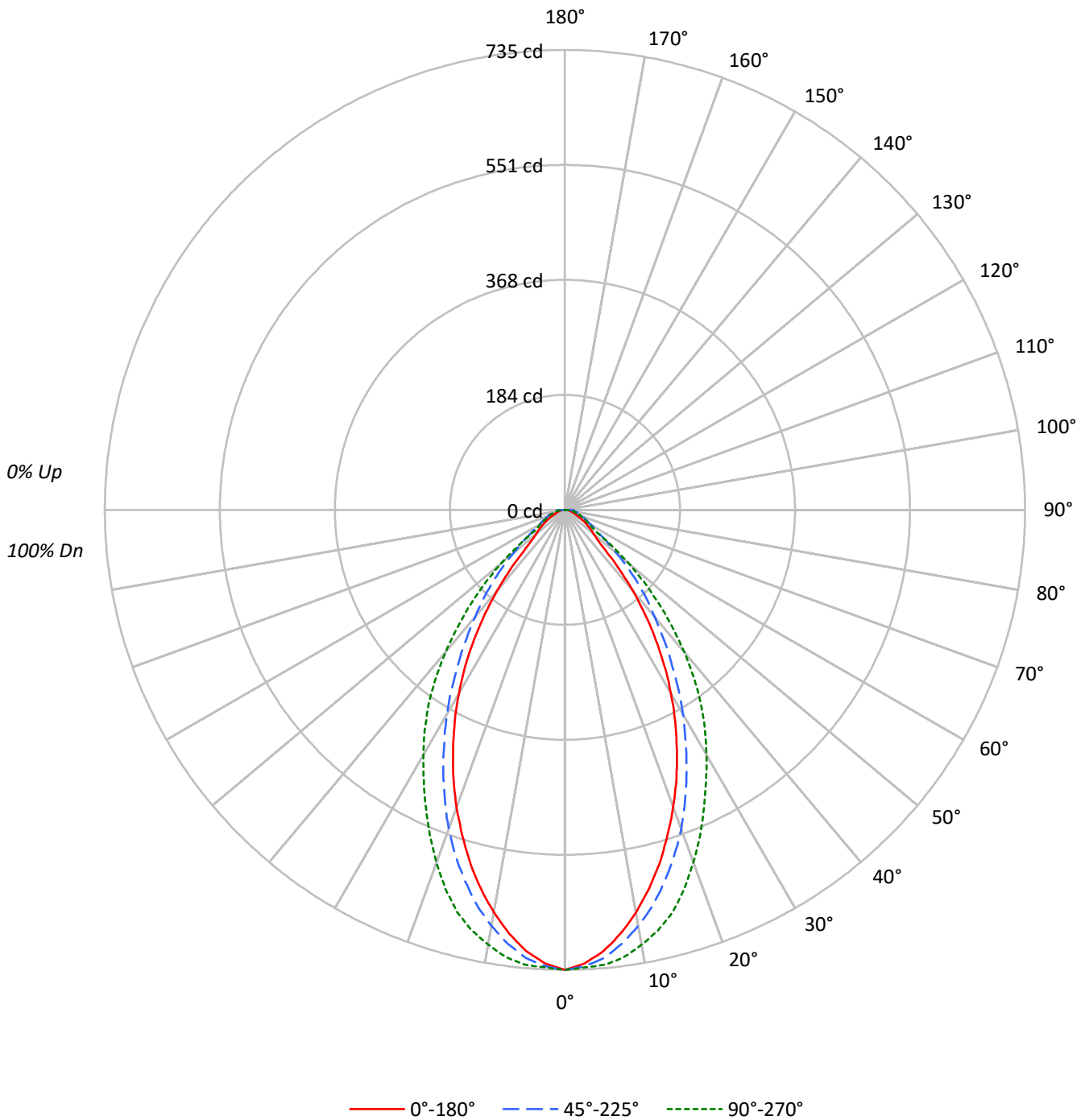
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 891.8 lumens  
Efficiency: N/A  
Efficacy: 28.6 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95  
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	102	99	97	98	96	94	94	93	91	89				89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	83	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	67	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	45	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°	13566	13566	13566
5°	13112	13314	13518
10°	12241	12649	13223
15°	11166	11749	12709
20°	9932	10661	11778
25°	8608	9364	10699
30°	7217	8031	9637
35°	5686	6645	8540
40°	4052	5369	7132
45°	2396	4248	5530
50°	1725	3075	3763
55°	1441	2213	1898
60°	1170	1775	1613
65°	952	1576	1480
70°	825	1532	1414
75°	777	1554	1405
80°	808	1860	1509
85°	1164	3006	1842

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5530 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.4	7.6
10°-20°	173.2	19.4
20°-30°	213.7	24.0
30°-40°	190.1	21.3
40°-50°	121.3	13.6
50°-60°	58.3	6.5
60°-70°	34.2	3.8
70°-80°	21.8	2.4
80°-90°	11.6	1.3
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°	454.4	51.0
0°-40°	644.5	72.3
0°-60°	824.1	92.4
0°-90°	891.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	891.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	735	735	735	735	735	
5°	708	721	719	723	730	66
15°	584	599	615	643	665	163
25°	423	439	460	493	526	193
35°	252	272	295	340	379	157
45°	92	119	163	189	212	77
55°	45	58	69	67	59	40
65°	22	39	36	33	34	22
75°	11	24	22	21	20	12
85°	6	13	14	12	9	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	735.2	735.2	735.2	735.2	735.2
2.5°	725.4	737.4	729.8	729.8	731.9
5°	707.9	721.0	718.8	723.2	729.8
7.5°	682.8	697.0	699.2	711.2	721.0
10°	653.3	668.6	675.1	692.6	705.7
12.5°	620.5	635.8	647.8	669.7	688.2
15°	584.5	598.7	615.0	643.4	665.3
17.5°	545.1	563.7	580.1	609.6	634.7
20°	505.8	523.3	542.9	571.3	599.8
22.5°	465.4	481.8	501.4	530.9	563.7
25°	422.8	439.2	459.9	492.7	525.5
27.5°	381.3	397.6	417.3	453.4	488.3
30°	338.7	355.0	376.9	414.0	452.3
32.5°	296.1	313.5	335.4	375.8	416.2
35°	252.4	272.0	295.0	339.7	379.1
37.5°	209.7	229.4	257.8	301.5	338.7
40°	168.2	191.2	222.9	262.2	296.1
42.5°	127.8	152.9	192.3	224.0	253.4
45°	91.8	119.1	162.8	189.0	211.9
47.5°	69.9	89.6	134.4	155.1	171.5
50°	60.1	72.1	107.1	122.4	131.1
52.5°	52.4	63.4	85.2	92.9	92.9
55°	44.8	57.9	68.8	66.6	59.0
57.5°	38.2	52.4	56.8	48.1	50.3
60°	31.7	48.1	48.1	42.6	43.7
62.5°	26.2	44.8	41.5	37.1	38.2
65°	21.8	39.3	36.1	32.8	33.9
67.5°	17.5	35.0	31.7	29.5	29.5
70°	15.3	31.7	28.4	26.2	26.2
72.5°	13.1	27.3	25.1	22.9	22.9
75°	10.9	24.0	21.8	20.8	19.7
77.5°	9.8	20.8	19.7	17.5	16.4
80°	7.6	17.5	17.5	16.4	14.2
82.5°	6.6	15.3	15.3	14.2	12.0
85°	5.5	13.1	14.2	12.0	8.7
87.5°	4.4	12.0	12.0	9.8	6.6
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	10.73	12.00	11.09	12.32	12.63	10.53	11.80	10.89	12.11	12.43
	3H	11.96	13.10	12.34	13.43	13.79	12.12	13.25	12.50	13.58	13.95
	4H	12.41	13.47	12.82	13.82	14.21	12.83	13.89	13.24	14.24	14.63
	6H	12.79	13.77	13.21	14.14	14.53	13.49	14.46	13.90	14.83	15.22
	8H	12.95	13.87	13.38	14.26	14.67	13.81	14.74	14.24	15.13	15.53
	12H	13.11	13.99	13.54	14.37	14.80	14.11	14.99	14.54	15.38	15.81
4H	2H	11.28	12.34	11.68	12.69	13.07	11.12	12.18	11.52	12.53	12.91
	3H	12.98	13.85	13.39	14.25	14.65	12.95	13.82	13.37	14.23	14.63
	4H	13.77	14.55	14.20	14.97	15.41	13.83	14.61	14.26	15.03	15.47
	6H	14.41	15.09	14.88	15.54	16.00	14.67	15.35	15.14	15.80	16.26
	8H	14.66	15.30	15.13	15.74	16.21	15.10	15.73	15.57	16.18	16.65
	12H	14.91	15.47	15.40	15.95	16.43	15.50	16.06	15.98	16.54	17.01
8H	4H	14.19	14.82	14.66	15.27	15.74	14.25	14.88	14.71	15.33	15.80
	6H	15.17	15.69	15.67	16.18	16.66	15.33	15.85	15.83	16.35	16.83
	8H	15.66	16.13	16.18	16.64	17.13	15.92	16.39	16.44	16.90	17.40
	12H	16.16	16.57	16.68	17.07	17.64	16.52	16.93	17.04	17.43	18.00
12H	4H	14.25	14.81	14.74	15.30	15.77	14.32	14.88	14.81	15.36	15.84
	6H	15.33	15.80	15.86	16.32	16.81	15.50	15.96	16.02	16.48	16.97
	8H	15.97	16.38	16.49	16.88	17.45	16.21	16.62	16.72	17.11	17.69