

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: P1058555

Luminaire Tested: S122RDR-H865D927-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058555  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H865D927-X4F0-XX-UDD-BVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

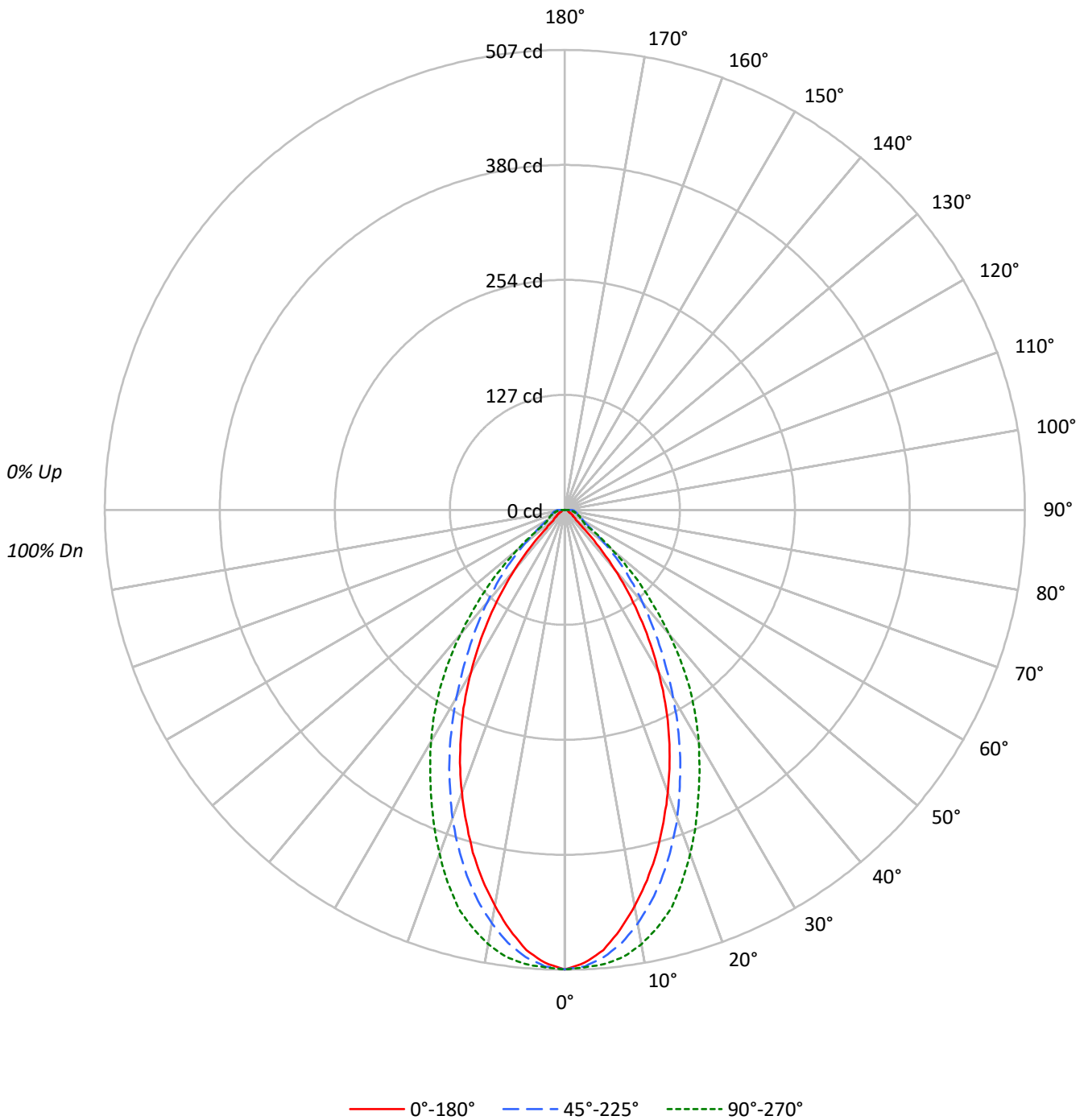
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 546.1 lumens  
Efficiency: N/A  
Efficacy: 17.5 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9  
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				
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90				
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81				
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74				
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67				
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61				
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57				
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52				
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48				
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45				
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42				

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

	0°	45°	90°
0°	9348	9348	9348
5°	9024	9169	9311
10°	8310	8673	9110
15°	7471	7972	8677
20°	6517	7108	7927
25°	5514	6126	7093
30°	4404	5086	6286
35°	3257	4089	5400
40°	2057	3204	4302
45°	812	2406	3165
50°	419	1616	1949
55°	344	1062	875
60°	251	860	790
65°	214	803	803
70°	210	836	788
75°	278	970	827
80°	414	1233	924
85°	614	2054	1228

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 87.5°  
 Luminance: 4103 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.3	8.5
10°-20°	117.0	21.4
20°-30°	139.1	25.5
30°-40°	115.7	21.2
40°-50°	64.6	11.8
50°-60°	26.1	4.8
60°-70°	16.7	3.1
70°-80°	12.5	2.3
80°-90°	8.0	1.5
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°	302.5	55.4
0°-40°	418.2	76.6
0°-60°	508.9	93.2
0°-90°	546.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	546.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	507	507	507	507	507	
5°	487	496	495	499	503	45
15°	391	403	417	439	454	109
25°	271	281	301	324	348	123
35°	145	158	182	212	240	90
45°	31	52	92	108	121	29
55°	11	22	33	32	27	9
65°	5	19	18	18	18	5
75°	4	14	14	13	12	4
85°	3	9	10	9	6	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	506.6	506.6	506.6	506.6	506.6
2.5°	499.8	507.6	503.7	503.7	504.7
5°	487.2	495.9	495.0	498.8	502.7
7.5°	466.8	476.5	481.4	490.1	496.9
10°	443.5	454.2	462.9	476.5	486.2
12.5°	418.3	429.0	441.6	459.1	471.7
15°	391.1	402.8	417.3	438.7	454.2
17.5°	361.0	373.6	390.1	413.4	429.9
20°	331.9	344.5	362.0	385.3	403.7
22.5°	301.8	312.5	330.9	354.2	376.6
25°	270.8	281.4	300.9	324.2	348.4
27.5°	239.7	250.4	269.8	294.1	321.2
30°	206.7	218.4	238.7	265.9	295.0
32.5°	175.7	187.3	208.7	238.7	267.9
35°	144.6	158.2	181.5	211.6	239.7
37.5°	114.5	130.0	156.3	184.4	209.6
40°	85.4	101.9	133.0	157.2	178.6
42.5°	56.3	75.7	111.6	132.0	148.5
45°	31.1	52.4	92.2	107.7	121.3
47.5°	17.5	34.0	72.8	85.4	93.2
50°	14.6	25.2	56.3	65.0	67.9
52.5°	11.6	23.3	42.7	47.6	45.6
55°	10.7	22.3	33.0	32.0	27.2
57.5°	8.7	22.3	26.2	23.3	23.3
60°	6.8	21.4	23.3	20.4	21.4
62.5°	5.8	20.4	21.4	19.4	19.4
65°	4.9	19.4	18.4	17.5	18.4
67.5°	3.9	17.5	17.5	16.5	16.5
70°	3.9	16.5	15.5	14.6	14.6
72.5°	3.9	14.6	14.6	13.6	13.6
75°	3.9	13.6	13.6	12.6	11.6
77.5°	3.9	11.6	12.6	11.6	10.7
80°	3.9	10.7	11.6	10.7	8.7
82.5°	3.9	9.7	10.7	9.7	7.8
85°	2.9	8.7	9.7	8.7	5.8
87.5°	2.9	8.7	9.7	7.8	4.9
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	6.12	7.34	6.49	7.66	7.97	7.21	8.43	7.57	8.74	9.06
	3H	7.46	8.55	7.84	8.88	9.24	9.24	10.32	9.62	10.66	11.02
	4H	8.04	9.05	8.44	9.40	9.79	10.19	11.20	10.60	11.55	11.94
	6H	8.61	9.54	9.02	9.91	10.30	11.14	12.07	11.55	12.44	12.83
	8H	8.94	9.81	9.37	10.21	10.61	11.59	12.47	12.02	12.86	13.27
	12H	9.24	10.08	9.67	10.47	10.90	12.01	12.85	12.44	13.23	13.67
4H	2H	7.09	8.10	7.49	8.45	8.83	7.88	8.89	8.29	9.24	9.63
	3H	9.12	9.95	9.54	10.36	10.76	10.17	11.00	10.58	11.41	11.81
	4H	10.20	10.95	10.64	11.37	11.82	11.31	12.06	11.75	12.48	12.93
	6H	11.08	11.72	11.54	12.17	12.64	12.48	13.13	12.95	13.58	14.05
	8H	11.49	12.09	11.96	12.54	13.01	13.05	13.65	13.52	14.10	14.57
	12H	11.87	12.40	12.35	12.89	13.36	13.59	14.12	14.08	14.61	15.08
8H	4H	10.97	11.58	11.44	12.03	12.50	11.86	12.47	12.33	12.92	13.39
	6H	12.31	12.81	12.82	13.31	13.79	13.32	13.81	13.82	14.31	14.79
	8H	13.03	13.48	13.55	13.99	14.49	14.08	14.53	14.61	15.05	15.54
	12H	13.72	14.11	14.24	14.61	15.18	14.87	15.26	15.38	15.76	16.33
12H	4H	11.13	11.66	11.62	12.15	12.62	11.97	12.51	12.46	12.99	13.46
	6H	12.64	13.08	13.16	13.60	14.09	13.54	13.99	14.07	14.51	15.00
	8H	13.54	13.93	14.05	14.43	15.00	14.45	14.85	14.97	15.34	15.91