

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: P1055264

Luminaire Tested: S122R3DR-S865D927-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1055264  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122R3DR-S865D927-X4F0-XX-UDD-F-S  
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

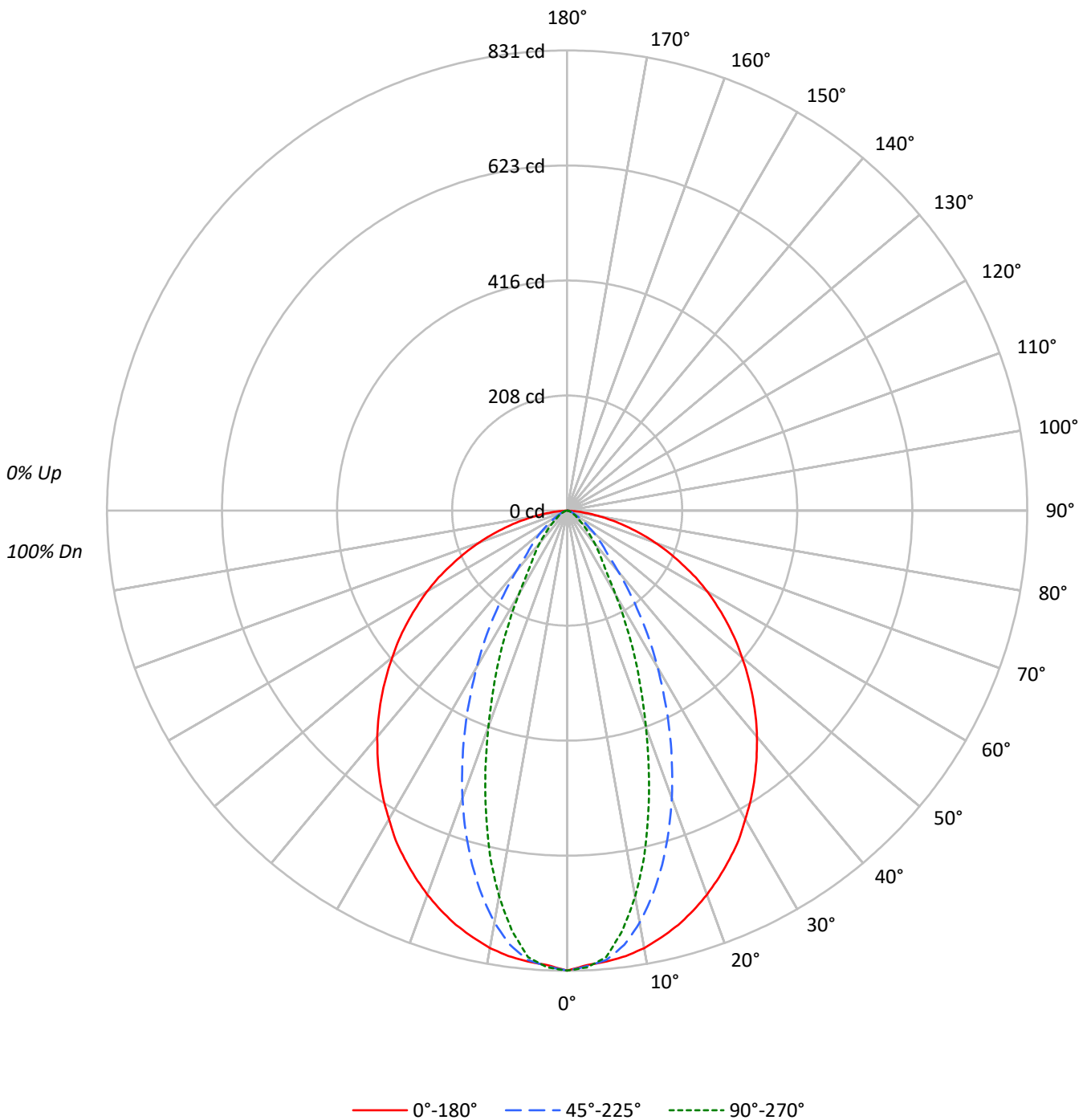
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 952.0 lumens  
Efficiency: N/A  
Efficacy: 27.4 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81  
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 34.7  
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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	47	45
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39

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

	0°	45°	90°
0°	15738	15738	15738
5°	15547	15488	15391
10°	15433	14532	13611
15°	15195	12998	11102
20°	14881	11145	8373
25°	14514	9129	5981
30°	14076	7127	3809
35°	13655	5227	2542
40°	13192	3524	1914
45°	12684	2481	1364
50°	12152	1889	961
55°	11634	1311	707
60°	11072	887	580
65°	10270	641	457
70°	9362	510	393
75°	8125	447	300
80°	6437	338	338
85°	3543	435	217

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12684 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.9	8.0
10°-20°	186.4	19.6
20°-30°	212.9	22.4
30°-40°	180.6	19.0
40°-50°	134.7	14.2
50°-60°	87.1	9.1
60°-70°	48.5	5.1
70°-80°	21.3	2.2
80°-90°	4.4	0.5
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°	475.3	49.9
0°-40°	655.9	68.9
0°-60°	877.7	92.2
0°-90°	952.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	952.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	831	831	831	831	831	
5°	818	828	814	806	809	78
15°	775	755	663	592	566	218
25°	694	613	437	320	286	320
35°	590	445	226	123	110	369
45°	473	281	93	60	51	365
55°	352	133	40	24	21	315
65°	229	49	14	11	10	228
75°	111	10	6	5	4	118
85°	16	1	2	1	1	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	830.7	830.7	830.7	830.7	830.7
2.5°	821.5	833.7	823.6	823.6	825.6
5°	817.5	827.6	814.4	806.3	809.3
7.5°	811.3	818.5	791.0	766.6	764.5
10°	802.2	805.2	755.4	717.7	707.5
12.5°	789.0	781.8	711.6	658.6	641.3
15°	774.7	755.4	662.7	592.5	566.0
17.5°	757.4	722.8	608.8	523.3	490.7
20°	738.1	689.2	552.8	451.0	415.3
22.5°	716.7	651.5	494.7	382.8	347.1
25°	694.3	612.8	436.7	319.7	286.1
27.5°	670.9	572.1	379.7	262.6	226.0
30°	643.4	530.4	325.8	207.7	174.1
32.5°	617.9	486.6	275.9	160.8	132.3
35°	590.4	444.9	226.0	123.2	109.9
37.5°	561.9	403.1	182.2	103.8	92.6
40°	533.4	361.4	142.5	87.5	77.4
42.5°	503.9	320.7	109.9	73.3	63.1
45°	473.4	281.0	92.6	60.1	50.9
47.5°	442.8	241.3	77.4	47.8	40.7
50°	412.3	203.6	64.1	37.7	32.6
52.5°	382.8	168.0	50.9	30.5	26.5
55°	352.2	133.4	39.7	24.4	21.4
57.5°	321.7	103.8	30.5	20.4	18.3
60°	292.2	78.4	23.4	16.3	15.3
62.5°	261.6	63.1	18.3	13.2	12.2
65°	229.1	48.9	14.3	11.2	10.2
67.5°	199.5	35.6	11.2	9.2	8.1
70°	169.0	24.4	9.2	8.1	7.1
72.5°	139.5	15.3	7.1	6.1	6.1
75°	111.0	10.2	6.1	5.1	4.1
77.5°	84.5	6.1	4.1	4.1	3.1
80°	59.0	4.1	3.1	3.1	3.1
82.5°	36.6	3.1	2.0	2.0	2.0
85°	16.3	1.0	2.0	1.0	1.0
87.5°	3.1	1.0	1.0	1.0	1.0
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	17.83	19.15	18.19	19.46	19.77	4.15	5.47	4.51	5.78	6.09
	3H	20.30	21.47	20.67	21.80	22.16	4.99	6.16	5.37	6.49	6.86
	4H	21.25	22.34	21.66	22.70	23.08	5.27	6.36	5.67	6.71	7.09
	6H	21.94	22.94	22.35	23.31	23.71	5.46	6.47	5.88	6.84	7.23
	8H	22.13	23.09	22.56	23.48	23.88	5.54	6.49	5.97	6.88	7.28
	12H	22.22	23.13	22.65	23.51	23.94	5.56	6.47	5.99	6.85	7.28
4H	2H	17.61	18.70	18.01	19.05	19.44	4.72	5.81	5.12	6.16	6.55
	3H	20.09	20.99	20.51	21.39	21.80	5.75	6.64	6.16	7.04	7.45
	4H	21.04	21.84	21.47	22.26	22.70	6.11	6.91	6.55	7.33	7.78
	6H	21.79	22.48	22.26	22.93	23.40	6.42	7.11	6.88	7.55	8.02
	8H	22.04	22.68	22.51	23.13	23.60	6.51	7.16	6.98	7.60	8.07
	12H	22.17	22.73	22.65	23.22	23.69	6.55	7.12	7.04	7.60	8.08
8H	4H	20.91	21.55	21.38	22.00	22.47	6.49	7.13	6.96	7.58	8.05
	6H	21.65	22.17	22.15	22.67	23.15	6.86	7.38	7.36	7.88	8.36
	8H	21.89	22.36	22.41	22.88	23.37	6.99	7.46	7.51	7.98	8.47
	12H	22.04	22.45	22.56	22.95	23.52	7.07	7.48	7.59	7.98	8.55
12H	4H	20.86	21.43	21.35	21.91	22.39	6.61	7.18	7.09	7.66	8.13
	6H	21.58	22.06	22.11	22.57	23.06	6.97	7.45	7.50	7.96	8.45
	8H	21.85	22.26	22.36	22.76	23.33	7.15	7.56	7.66	8.06	8.63