

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: P1055560

Luminaire Tested: S123R3DR-S1000D927-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1055560  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123R3DR-S1000D927-X4F0-XX-UDD-F-B  
Description: DEFINE 3, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

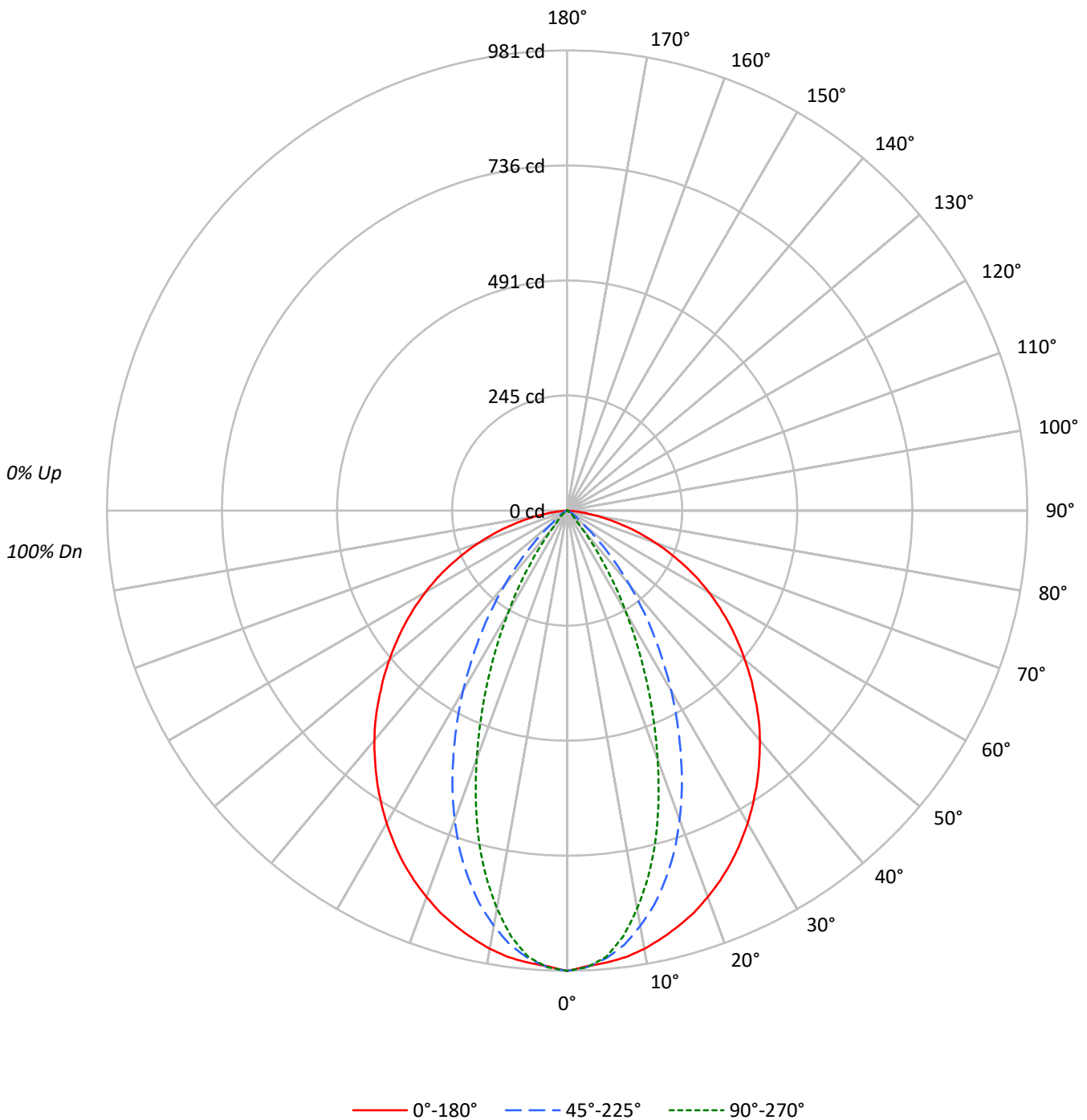
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1148.5 lumens  
Efficiency: N/A  
Efficacy: 33.1 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86  
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 34.7  
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	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	103	109	106	104	101	102	100	98	98	97	95	95	93	92	90
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59
6	81	70	63	58	79	69	62	57	67	61	57	66	61	56	64	60	56	54
7	76	65	58	53	74	64	57	52	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46
9	68	56	49	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40

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

	0°	45°	90°
0°	11832	11832	11832
5°	11704	11593	11557
10°	11616	11005	10543
15°	11448	10140	9085
20°	11246	8999	7236
25°	11009	7624	5336
30°	10714	6178	3500
35°	10398	4705	1918
40°	10062	3253	656
45°	9668	1893	382
50°	9279	745	229
55°	8881	471	107
60°	8420	294	48
65°	7842	145	29
70°	7032	71	35
75°	5977	47	47
80°	4450	69	0
85°	1688	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9668 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.0	7.8
10°-20°	228.3	19.9
20°-30°	272.4	23.7
30°-40°	231.0	20.1
40°-50°	157.0	13.7
50°-60°	97.3	8.5
60°-70°	49.3	4.3
70°-80°	20.1	1.7
80°-90°	3.1	0.3
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°	590.7	51.4
0°-40°	821.7	71.5
0°-60°	1076.1	93.7
0°-90°	1148.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1148.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	981	981	981	981	981	
5°	967	976	958	951	955	92
15°	917	894	812	748	728	259
25°	828	750	573	443	401	381
35°	706	567	320	172	130	442
45°	567	372	111	28	22	438
55°	422	187	22	8	5	377
65°	275	46	5	1	1	272
75°	128	8	1	1	1	136
85°	12	0	0	1	0	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	981.4	981.4	981.4	981.4	981.4
2.5°	972.2	985.4	974.2	973.2	974.2
5°	967.1	976.3	957.9	950.8	954.9
7.5°	960.0	964.0	933.5	915.2	915.2
10°	948.8	945.7	898.9	868.4	861.2
12.5°	933.5	921.3	860.2	812.4	799.1
15°	917.2	893.8	812.4	748.2	727.9
17.5°	898.9	863.3	760.4	677.0	647.4
20°	876.5	828.7	701.4	599.6	564.0
22.5°	853.1	791.0	639.3	520.2	480.5
25°	827.6	750.3	573.1	442.8	401.1
27.5°	799.1	707.5	508.0	368.5	322.7
30°	769.6	662.7	443.8	297.3	251.4
32.5°	738.1	615.9	379.7	232.1	189.3
35°	706.5	567.0	319.7	172.0	130.3
37.5°	672.9	518.2	261.6	119.1	82.5
40°	639.3	470.3	206.7	75.3	41.7
42.5°	604.7	420.4	156.8	37.7	28.5
45°	567.0	371.6	111.0	27.5	22.4
47.5°	531.4	324.7	73.3	22.4	17.3
50°	494.7	277.9	39.7	16.3	12.2
52.5°	458.1	233.1	28.5	12.2	8.1
55°	422.5	187.3	22.4	8.1	5.1
57.5°	385.8	147.6	17.3	5.1	3.1
60°	349.2	108.9	12.2	3.1	2.0
62.5°	312.5	75.3	8.1	2.0	1.0
65°	274.9	45.8	5.1	1.0	1.0
67.5°	236.2	31.6	3.1	1.0	1.0
70°	199.5	22.4	2.0	1.0	1.0
72.5°	162.9	14.3	1.0	1.0	0.0
75°	128.3	8.1	1.0	1.0	1.0
77.5°	94.7	3.1	1.0	1.0	0.0
80°	64.1	1.0	1.0	1.0	0.0
82.5°	35.6	0.0	1.0	1.0	0.0
85°	12.2	0.0	0.0	1.0	0.0
87.5°	0.0	0.0	0.0	1.0	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	17.63	18.91	18.00	19.23	19.54	0.00	0.00	0.00	0.00	0.00
	3H	19.58	20.71	19.96	21.04	21.41	0.00	0.00	0.00	0.00	0.00
	4H	20.40	21.46	20.81	21.81	22.20	0.00	0.00	0.00	0.00	0.00
	6H	20.96	21.93	21.37	22.30	22.69	0.00	0.00	0.00	0.00	0.00
	8H	21.08	22.00	21.52	22.39	22.80	0.00	0.00	0.00	0.00	0.00
	12H	21.11	21.98	21.54	22.37	22.80	0.00	0.00	0.00	0.00	0.00
4H	2H	17.40	18.45	17.80	18.80	19.19	0.00	0.00	0.00	0.00	0.00
	3H	19.35	20.21	19.76	20.62	21.02	0.00	0.00	0.00	0.00	0.00
	4H	20.16	20.93	20.60	21.35	21.80	0.00	0.00	0.00	0.00	0.00
	6H	20.76	21.43	21.23	21.87	22.34	0.00	0.00	0.00	0.00	0.00
	8H	20.92	21.53	21.39	21.98	22.45	0.00	0.00	0.00	0.00	0.00
	12H	20.96	21.51	21.45	21.99	22.46	0.00	0.00	0.00	0.00	0.00
8H	4H	20.02	20.64	20.49	21.09	21.56	0.00	0.00	0.00	0.00	0.00
	6H	20.60	21.10	21.11	21.60	22.08	0.00	0.00	0.00	0.00	0.00
	8H	20.75	21.20	21.27	21.72	22.21	0.00	0.00	0.00	0.00	0.00
	12H	20.81	21.20	21.32	21.70	22.27	0.00	0.00	0.00	0.00	0.00
12H	4H	19.97	20.52	20.46	21.00	21.47	0.00	0.00	0.00	0.00	0.00
	6H	20.54	20.99	21.06	21.51	22.00	0.00	0.00	0.00	0.00	0.00
	8H	20.71	21.10	21.22	21.60	22.17	0.00	0.00	0.00	0.00	0.00