

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: P1056073

Luminaire Tested: S124R3DR-S795D927-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056073  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124R3DR-S795D927-X4F0-XX-UDD-F-B  
Description: DEFINE 4, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

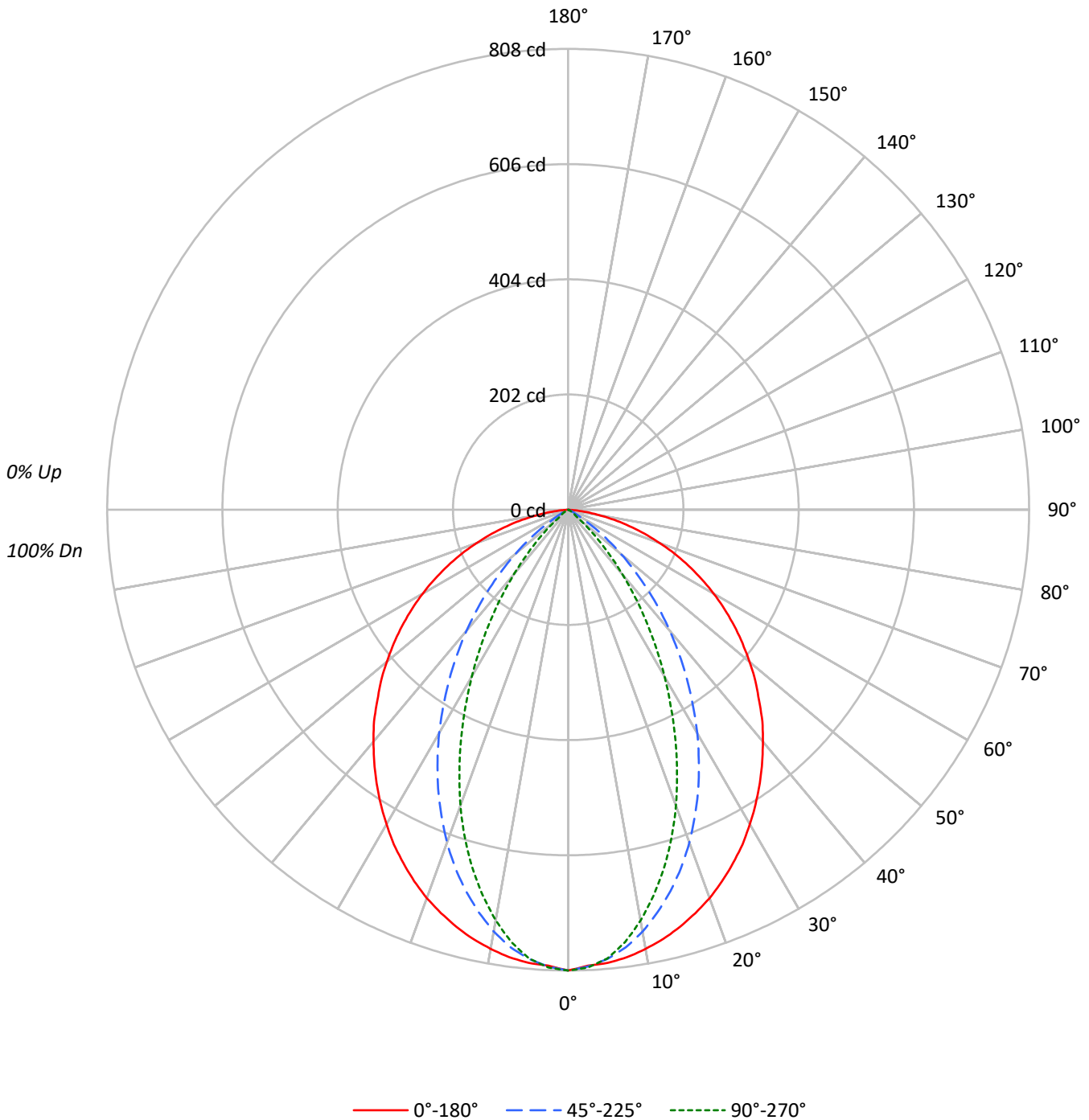
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1129.4 lumens  
Efficiency: N/A  
Efficacy: 42.8 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 0.81 / 0.97  
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 26.4  
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	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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	95	93	92	90					90			
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80					80			
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71					71			
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	65	64					64			
5	84	74	66	61	83	73	66	61	71	65	60	69	64	60	67	63	59	57					57			
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	54	52					52			
7	74	63	55	50	73	62	55	50	60	54	50	59	53	49	58	53	49	47					47			
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43					43			
9	66	54	47	42	64	53	47	42	52	46	42	51	46	42	50	45	41	40					40			
10	62	50	43	39	61	50	43	39	49	43	39	48	42	39	47	42	38	37					37			

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

	0°	45°	90°
0°	7144	7144	7144
5°	7080	7017	7010
10°	7020	6742	6565
15°	6932	6338	5946
20°	6819	5844	5196
25°	6670	5263	4335
30°	6502	4618	3446
35°	6318	3916	2566
40°	6126	3191	1709
45°	5913	2437	942
50°	5710	1667	261
55°	5483	903	171
60°	5211	279	97
65°	4872	182	50
70°	4402	83	21
75°	3788	27	0
80°	2861	0	0
85°	1207	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5913 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.5	6.6
10°-20°	195.7	17.3
20°-30°	252.9	22.4
30°-40°	241.7	21.4
40°-50°	180.8	16.0
50°-60°	107.6	9.5
60°-70°	54.6	4.8
70°-80°	19.0	1.7
80°-90°	2.6	0.2
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°	523.1	46.3
0°-40°	764.8	67.7
0°-60°	1053.2	93.3
0°-90°	1129.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1129.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	808	808	808	808	808	
5°	798	804	791	787	790	76
15°	757	742	692	660	650	213
25°	684	636	540	468	444	315
35°	585	505	363	270	238	366
45°	473	363	195	104	75	366
55°	356	221	59	14	11	318
65°	233	90	9	3	2	230
75°	111	12	1	1	0	118
85°	12	0	0	0	0	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	808.0	808.0	808.0	808.0	808.0
2.5°	800.1	809.6	801.7	802.5	803.3
5°	797.7	804.1	790.6	786.6	789.8
7.5°	791.4	793.8	774.0	763.7	764.5
10°	781.9	779.5	751.0	733.6	731.2
12.5°	770.8	762.9	723.3	697.9	692.4
15°	757.3	741.5	692.4	659.9	649.6
17.5°	741.5	718.5	658.3	615.5	602.8
20°	724.8	693.2	621.1	568.0	552.2
22.5°	705.0	664.6	580.7	518.1	498.3
25°	683.7	636.1	539.5	468.2	444.4
27.5°	661.5	605.2	495.9	417.5	389.8
30°	636.9	572.7	452.3	366.0	337.5
32.5°	611.6	539.5	407.2	318.5	286.8
35°	585.4	504.6	362.8	270.1	237.7
37.5°	558.5	469.8	320.0	224.2	190.9
40°	530.8	434.1	276.5	180.6	148.1
42.5°	503.8	398.5	235.3	139.4	109.3
45°	472.9	362.8	194.9	103.8	75.3
47.5°	445.2	328.0	156.1	70.5	44.4
50°	415.1	290.7	121.2	41.2	19.0
52.5°	385.0	255.9	88.7	18.2	14.3
55°	355.7	221.0	58.6	13.5	11.1
57.5°	324.8	186.2	31.7	10.3	7.9
60°	294.7	152.1	15.8	7.9	5.5
62.5°	263.8	119.6	12.7	4.8	3.2
65°	232.9	89.5	8.7	3.2	2.4
67.5°	202.0	61.0	5.5	1.6	0.8
70°	170.3	37.2	3.2	0.8	0.8
72.5°	140.2	19.0	1.6	0.8	0.8
75°	110.9	11.9	0.8	0.8	0.0
77.5°	82.4	6.3	0.8	0.8	0.0
80°	56.2	2.4	0.0	0.0	0.0
82.5°	32.5	0.8	0.0	0.0	0.0
85°	11.9	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	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	17.29	18.62	17.65	18.93	19.24	0.00	0.00	0.00	0.00	0.00
	3H	18.83	20.01	19.21	20.34	20.70	0.00	0.00	0.00	0.00	0.00
	4H	19.42	20.52	19.83	20.87	21.25	0.00	0.00	0.00	0.00	0.00
	6H	19.84	20.85	20.25	21.22	21.61	0.00	0.00	0.00	0.00	0.00
	8H	19.94	20.89	20.37	21.28	21.69	0.00	0.00	0.00	0.00	0.00
	12H	19.96	20.87	20.39	21.25	21.68	0.00	0.00	0.00	0.00	0.00
4H	2H	17.07	18.16	17.47	18.51	18.89	0.00	0.00	0.00	0.00	0.00
	3H	18.63	19.52	19.04	19.93	20.33	0.00	0.00	0.00	0.00	0.00
	4H	19.21	20.01	19.65	20.43	20.87	0.00	0.00	0.00	0.00	0.00
	6H	19.67	20.36	20.13	20.80	21.27	0.00	0.00	0.00	0.00	0.00
	8H	19.79	20.43	20.26	20.88	21.35	0.00	0.00	0.00	0.00	0.00
	12H	19.83	20.40	20.32	20.88	21.35	0.00	0.00	0.00	0.00	0.00
8H	4H	19.08	19.72	19.54	20.16	20.63	0.00	0.00	0.00	0.00	0.14
	6H	19.52	20.04	20.02	20.53	21.02	0.00	0.00	0.00	0.00	0.00
	8H	19.63	20.10	20.15	20.62	21.11	0.00	0.00	0.00	0.00	0.00
	12H	19.68	20.09	20.20	20.59	21.16	0.00	0.00	0.00	0.00	0.00
12H	4H	19.03	19.60	19.52	20.08	20.55	0.00	0.00	0.00	0.04	0.52
	6H	19.45	19.92	19.98	20.44	20.93	0.00	0.00	0.00	0.00	0.36
	8H	19.59	20.00	20.10	20.50	21.07	0.00	0.00	0.00	0.00	0.32