

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: P1056062

Luminaire Tested: S124R3DR-S795D830-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056062  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124R3DR-S795D830-X4F0-XX-UDD-F-S  
Description: DEFINE 4, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

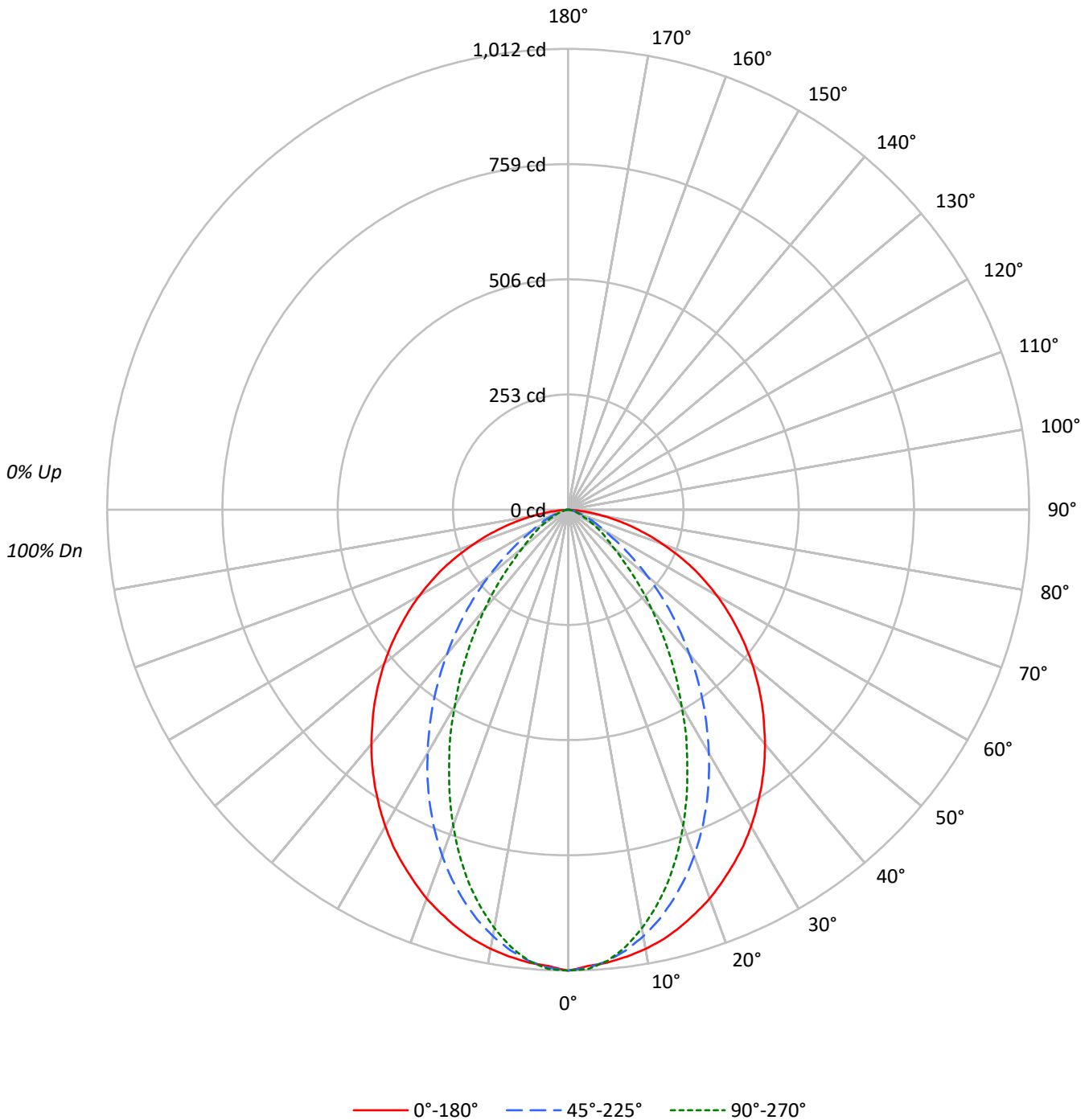
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1636.9 lumens  
Efficiency: N/A  
Efficacy: 62.0 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.87 / 1.03  
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 (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

TEST NUMBER: P1056062

CATALOG NUMBER: S124R3DR-S795D830-X4F0-XX-UDD-F-S

### Luminous Intensity Polar Plot



TEST NUMBER: P1056062

CATALOG NUMBER: S124R3DR-S795D830-X4F0-XX-UDD-F-S

**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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	89					89			
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	79	78					78			
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68					68			
4	89	78	71	65	86	77	70	65	75	69	64	73	67	63	71	66	62	60					60			
5	82	71	64	58	80	70	63	58	68	62	57	66	61	56	65	60	56	54					54			
6	77	65	57	52	75	64	57	52	63	56	51	61	55	51	60	54	50	48					48			
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46	44					44			
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40					40			
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37					37			
10	60	48	41	36	59	47	40	36	46	40	36	45	40	35	45	39	35	34					34			

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

	0°	45°	90°
0°	8950	8950	8950
5°	8859	8825	8825
10°	8792	8538	8377
15°	8687	8127	7747
20°	8549	7609	6944
25°	8377	6998	6032
30°	8198	6303	5081
35°	7986	5565	4181
40°	7756	4776	3296
45°	7518	3971	2463
50°	7260	3125	1802
55°	6974	2311	1438
60°	6666	1600	1100
65°	6270	1243	808
70°	5677	876	633
75°	4960	611	482
80°	3982	479	433
85°	2201	385	385

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7518 cd/sqm



TEST NUMBER: P1056062

CATALOG NUMBER: S124R3DR-S795D830-X4F0-XX-UDD-F-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.9	5.7
10°-20°	250.9	15.3
20°-30°	334.6	20.4
30°-40°	336.9	20.6
40°-50°	276.3	16.9
50°-60°	188.9	11.5
60°-70°	105.5	6.4
70°-80°	41.8	2.6
80°-90°	8.0	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°	679.4	41.5
0°-40°	1016.3	62.1
0°-60°	1481.5	90.5
0°-90°	1636.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1636.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1012	1012	1012	1012	1012	
5°	998	1010	994	990	994	95
15°	949	939	888	857	846	267
25°	859	816	717	645	618	396
35°	740	662	516	418	387	463
45°	601	491	318	223	197	464
55°	452	318	150	100	93	405
65°	300	151	59	42	39	296
75°	145	40	18	15	14	156
85°	22	4	4	4	4	31
90°	0	0	0	0	0	



TEST NUMBER: P1056062

CATALOG NUMBER: S124R3DR-S795D830-X4F0-XX-UDD-F-S

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1012.3	1012.3	1012.3	1012.3	1012.3
2.5°	1002.9	1015.1	1006.6	1007.6	1009.5
5°	998.2	1009.5	994.4	989.7	994.4
7.5°	989.7	998.2	975.5	966.1	968.0
10°	979.3	982.1	951.0	935.0	933.1
12.5°	966.1	962.3	921.8	898.2	892.6
15°	949.1	938.8	887.9	856.8	846.4
17.5°	929.3	911.4	850.2	809.6	794.6
20°	908.6	882.2	808.7	756.9	738.0
22.5°	884.1	851.1	764.4	701.3	679.6
25°	858.7	816.2	717.3	644.7	618.3
27.5°	832.3	780.4	668.3	587.2	560.8
30°	803.0	741.8	617.4	529.7	497.7
32.5°	771.9	702.2	566.5	473.2	443.0
35°	739.9	661.7	515.6	417.5	387.4
37.5°	706.9	620.2	464.7	364.8	334.6
40°	672.0	577.8	413.8	314.8	285.6
42.5°	636.2	534.4	364.8	267.7	240.3
45°	601.3	491.1	317.6	223.4	197.0
47.5°	564.6	447.7	271.5	181.9	159.3
50°	527.8	404.4	227.2	146.1	131.0
52.5°	490.1	361.0	186.6	119.7	109.3
55°	452.4	317.6	149.9	99.9	93.3
57.5°	414.7	274.3	115.9	84.8	77.3
60°	377.0	231.9	90.5	68.8	62.2
62.5°	338.4	189.5	74.5	54.7	49.0
65°	299.7	150.8	59.4	42.4	38.6
67.5°	261.1	115.0	45.2	33.0	30.2
70°	219.6	82.0	33.9	25.4	24.5
72.5°	183.8	55.6	24.5	19.8	18.9
75°	145.2	39.6	17.9	15.1	14.1
77.5°	112.2	25.4	13.2	12.3	11.3
80°	78.2	14.1	9.4	8.5	8.5
82.5°	48.1	7.5	6.6	5.7	5.7
85°	21.7	3.8	3.8	3.8	3.8
87.5°	3.8	1.9	1.9	1.9	1.9
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1056062  
 CATALOG NUMBER: S124R3DR-S795D830-X4F0-XX-UDD-F-S

**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	18.34	19.75	18.70	20.06	20.37	9.43	10.83	9.79	11.15	11.46
	3H	19.92	21.18	20.30	21.51	21.87	10.02	11.27	10.40	11.60	11.96
	4H	20.52	21.69	20.92	22.04	22.42	10.18	11.35	10.58	11.69	12.08
	6H	20.95	22.03	21.37	22.40	22.79	10.28	11.36	10.70	11.73	12.12
	8H	21.06	22.09	21.49	22.48	22.88	10.30	11.33	10.73	11.72	12.12
	12H	21.11	22.08	21.54	22.47	22.90	10.31	11.29	10.74	11.67	12.10
4H	2H	18.19	19.36	18.59	19.71	20.09	10.01	11.18	10.41	11.53	11.91
	3H	19.84	20.80	20.25	21.20	21.60	10.72	11.68	11.14	12.08	12.49
	4H	20.45	21.30	20.88	21.72	22.16	10.93	11.79	11.36	12.20	12.64
	6H	20.94	21.68	21.40	22.13	22.59	11.10	11.84	11.56	12.28	12.75
	8H	21.08	21.77	21.55	22.22	22.69	11.13	11.82	11.60	12.27	12.74
	12H	21.15	21.77	21.64	22.25	22.72	11.15	11.77	11.64	12.25	12.72
8H	4H	20.34	21.03	20.81	21.48	21.95	11.20	11.89	11.67	12.34	12.81
	6H	20.82	21.39	21.32	21.88	22.36	11.40	11.97	11.90	12.46	12.94
	8H	20.96	21.47	21.48	21.99	22.48	11.46	11.97	11.98	12.48	12.97
	12H	21.06	21.50	21.57	22.00	22.57	11.52	11.97	12.04	12.47	13.03
12H	4H	20.30	20.91	20.79	21.40	21.87	11.23	11.84	11.71	12.32	12.79
	6H	20.77	21.27	21.28	21.79	22.28	11.43	11.94	11.95	12.45	12.94
	8H	20.93	21.38	21.44	21.87	22.44	11.53	11.97	12.04	12.47	13.04