

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: P1056079

Luminaire Tested: S124R3DR-S795D935-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056079  
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-S795D935-X4F0-XX-UDD-F-B  
Description: DEFINE 4, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

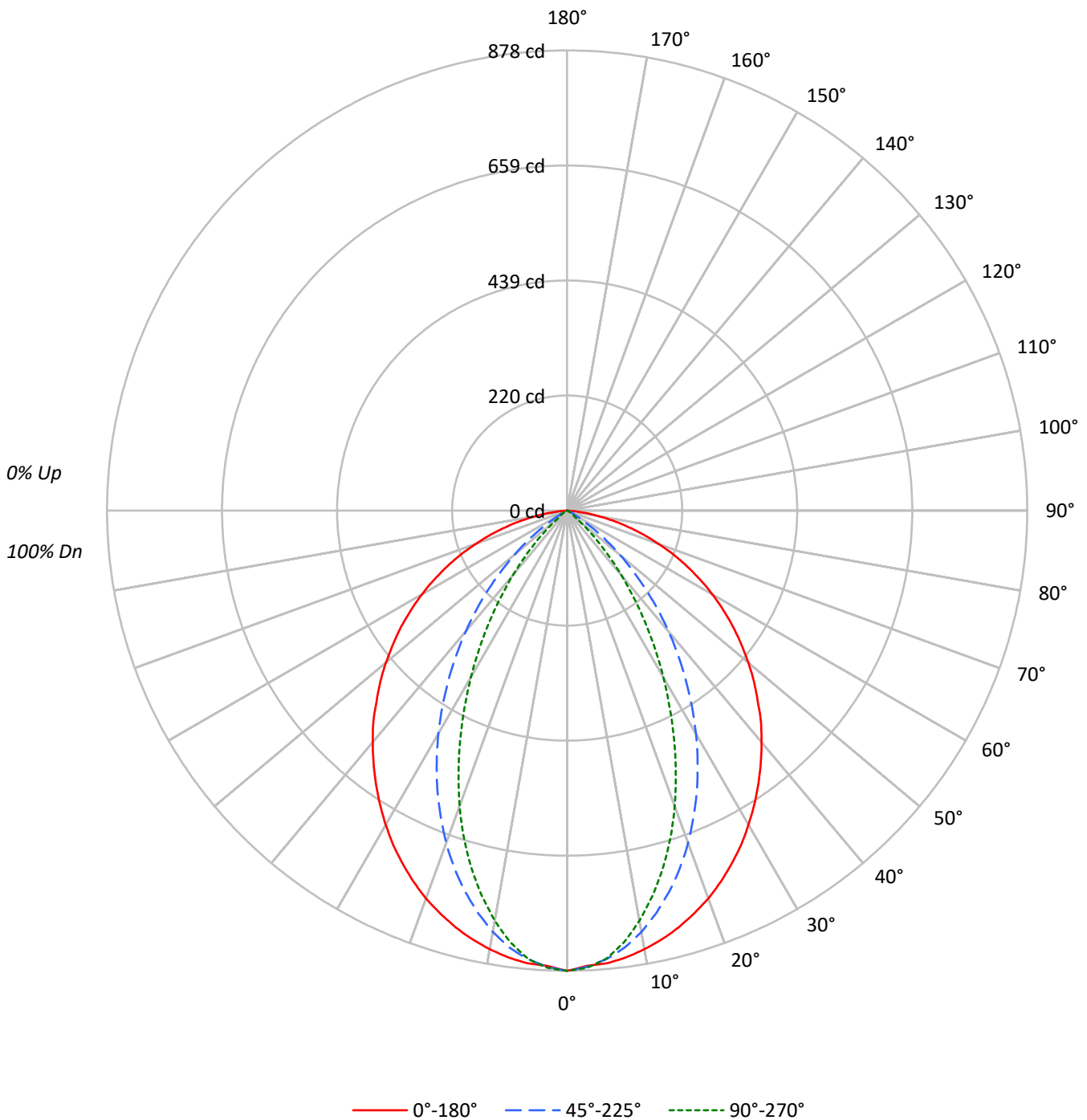
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1227.5 lumens  
Efficiency: N/A  
Efficacy: 46.5 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	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	95	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	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	65	64
5	84	74	66	61	83	73	66	61	71	65	60	69	64	60	67	63	59	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	54	52
7	74	63	55	50	73	62	55	50	60	54	50	59	53	49	58	53	49	47
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43
9	66	54	47	42	64	53	47	42	52	46	42	51	46	42	50	45	41	40
10	62	50	43	39	61	50	43	39	49	43	39	48	42	39	47	42	38	37

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

	0°	45°	90°
0°	7764	7764	7764
5°	7695	7626	7618
10°	7629	7328	7135
15°	7534	6888	6462
20°	7412	6351	5646
25°	7248	5720	4712
30°	7067	5019	3745
35°	6868	4256	2788
40°	6658	3468	1858
45°	6427	2648	1023
50°	6206	1811	285
55°	5959	982	187
60°	5664	304	106
65°	5295	199	54
70°	4785	88	23
75°	4116	31	0
80°	3111	0	0
85°	1309	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6427 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.0	6.6
10°-20°	212.7	17.3
20°-30°	274.8	22.4
30°-40°	262.7	21.4
40°-50°	196.5	16.0
50°-60°	116.9	9.5
60°-70°	59.4	4.8
70°-80°	20.7	1.7
80°-90°	2.8	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°	568.6	46.3
0°-40°	831.3	67.7
0°-60°	1144.6	93.3
0°-90°	1227.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1227.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	878	878	878	878	878	
5°	867	874	859	855	858	82
15°	823	806	752	717	706	232
25°	743	691	586	509	483	342
35°	636	548	394	294	258	398
45°	514	394	212	113	82	397
55°	387	240	64	15	12	345
65°	253	97	10	3	3	250
75°	120	13	1	1	0	128
85°	13	0	0	0	0	21
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	878.2	878.2	878.2	878.2	878.2
2.5°	869.6	879.9	871.3	872.2	873.1
5°	867.0	873.9	859.3	855.0	858.4
7.5°	860.1	862.7	841.2	830.0	830.9
10°	849.8	847.2	816.2	797.3	794.7
12.5°	837.8	829.1	786.1	758.5	752.5
15°	823.1	805.9	752.5	717.2	706.0
17.5°	805.9	780.9	715.5	669.0	655.2
20°	787.8	753.4	675.0	617.3	600.1
22.5°	766.3	722.4	631.1	563.1	541.6
25°	743.0	691.4	586.3	508.8	483.0
27.5°	718.9	657.8	539.0	453.7	423.6
30°	692.2	622.5	491.6	397.8	366.8
32.5°	664.7	586.3	442.6	346.1	311.7
35°	636.3	548.5	394.3	293.6	258.3
37.5°	607.0	510.6	347.8	243.7	207.5
40°	576.9	471.8	300.5	196.3	161.0
42.5°	547.6	433.1	255.7	151.5	118.8
45°	514.0	394.3	211.8	112.8	81.8
47.5°	483.9	356.5	169.6	76.6	48.2
50°	451.2	316.0	131.7	44.8	20.7
52.5°	418.4	278.1	96.4	19.8	15.5
55°	386.6	240.2	63.7	14.6	12.1
57.5°	353.0	202.3	34.4	11.2	8.6
60°	320.3	165.3	17.2	8.6	6.0
62.5°	286.7	130.0	13.8	5.2	3.4
65°	253.1	97.3	9.5	3.4	2.6
67.5°	219.6	66.3	6.0	1.7	0.9
70°	185.1	40.5	3.4	0.9	0.9
72.5°	152.4	20.7	1.7	0.9	0.9
75°	120.5	12.9	0.9	0.9	0.0
77.5°	89.5	6.9	0.9	0.9	0.0
80°	61.1	2.6	0.0	0.0	0.0
82.5°	35.3	0.9	0.0	0.0	0.0
85°	12.9	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	17.58	18.90	17.94	19.22	19.53	0.00	0.00	0.00	0.00	0.00
	3H	19.12	20.30	19.50	20.63	20.99	0.00	0.00	0.00	0.00	0.00
	4H	19.71	20.81	20.11	21.16	21.54	0.00	0.00	0.00	0.00	0.00
	6H	20.13	21.13	20.54	21.51	21.90	0.00	0.00	0.00	0.00	0.00
	8H	20.23	21.18	20.66	21.57	21.98	0.00	0.00	0.00	0.00	0.00
	12H	20.25	21.16	20.68	21.54	21.97	0.00	0.00	0.00	0.00	0.00
4H	2H	17.35	18.45	17.76	18.80	19.18	0.00	0.00	0.00	0.00	0.00
	3H	18.92	19.81	19.33	20.21	20.62	0.00	0.00	0.00	0.00	0.00
	4H	19.50	20.30	19.94	20.72	21.16	0.00	0.00	0.00	0.00	0.00
	6H	19.96	20.65	20.42	21.09	21.56	0.00	0.00	0.00	0.00	0.00
	8H	20.08	20.72	20.55	21.17	21.64	0.00	0.00	0.00	0.00	0.00
	12H	20.12	20.69	20.61	21.17	21.64	0.00	0.00	0.00	0.00	0.00
8H	4H	19.36	20.01	19.83	20.45	20.92	0.00	0.00	0.00	0.00	0.44
	6H	19.80	20.33	20.31	20.82	21.30	0.00	0.00	0.00	0.00	0.29
	8H	19.92	20.39	20.44	20.90	21.40	0.00	0.00	0.00	0.00	0.21
	12H	19.97	20.38	20.49	20.88	21.45	0.00	0.00	0.00	0.00	0.17
12H	4H	19.32	19.88	19.80	20.37	20.84	0.00	0.00	0.00	0.34	0.82
	6H	19.74	20.21	20.26	20.73	21.22	0.00	0.00	0.00	0.17	0.66
	8H	19.88	20.29	20.39	20.79	21.36	0.00	0.00	0.00	0.05	0.62