

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: P1056451

Luminaire Tested: S125R3DR-S610D927-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056451  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125R3DR-S610D927-X4F0-XX-UDD-F-B  
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

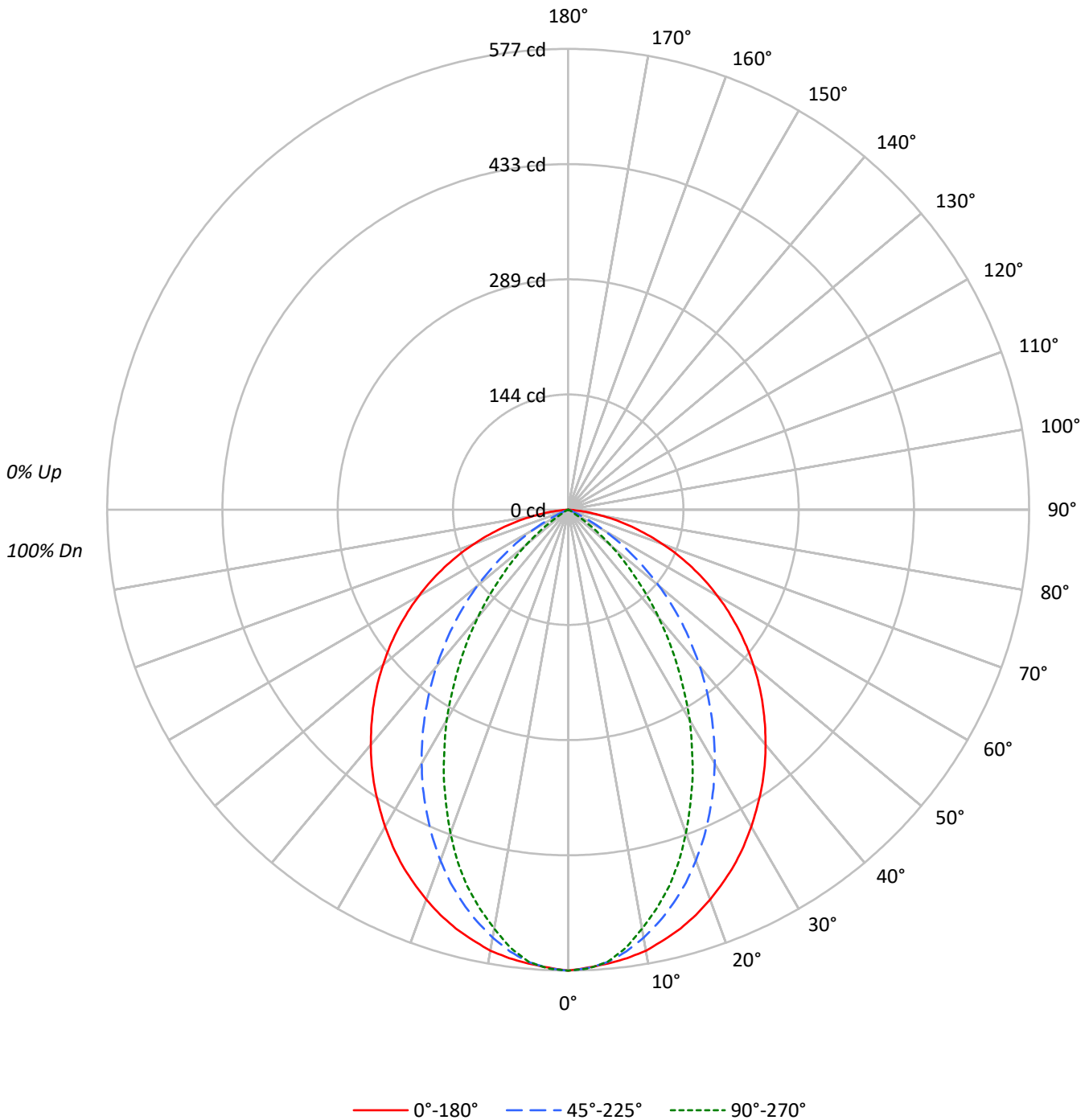
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 935.6 lumens  
Efficiency: N/A  
Efficacy: 49.0 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07  
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.1  
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	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34

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

	0°	45°	90°
0°	4080	4080	4080
5°	4048	4035	4031
10°	4024	3905	3823
15°	3973	3730	3572
20°	3907	3516	3241
25°	3833	3267	2874
30°	3740	2993	2484
35°	3649	2691	2054
40°	3547	2365	1626
45°	3443	2019	1178
50°	3328	1630	761
55°	3201	1192	339
60°	3050	737	98
65°	2860	268	57
70°	2590	95	23
75°	2251	30	16
80°	1722	24	0
85°	787	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3443 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.6	5.7
10°-20°	144.0	15.4
20°-30°	194.8	20.8
30°-40°	200.1	21.4
40°-50°	165.8	17.7
50°-60°	106.4	11.4
60°-70°	51.4	5.5
70°-80°	17.4	1.9
80°-90°	2.2	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°	392.3	41.9
0°-40°	592.4	63.3
0°-60°	864.6	92.4
0°-90°	935.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	935.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	577	577	577	577	577	
5°	570	575	569	565	568	54
15°	543	536	510	492	488	153
25°	491	467	419	381	368	226
35°	423	382	312	257	238	264
45°	344	288	202	140	118	266
55°	260	190	97	42	28	232
65°	171	94	16	5	3	169
75°	82	18	1	1	1	87
85°	10	0	0	0	0	15
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	577.2	577.2	577.2	577.2	577.2
2.5°	573.8	578.4	574.4	573.8	574.9
5°	570.4	574.9	568.6	565.2	568.1
7.5°	566.3	568.6	557.8	552.0	553.2
10°	560.6	560.1	544.0	534.3	532.6
12.5°	552.0	549.2	528.0	514.3	511.4
15°	542.9	536.0	509.7	492.0	488.0
17.5°	532.0	521.2	489.7	466.8	461.1
20°	519.4	504.6	467.4	439.3	430.8
22.5°	505.7	486.8	443.9	410.7	399.3
25°	491.4	467.4	418.8	381.0	368.4
27.5°	475.4	447.4	393.6	350.7	335.2
30°	458.2	426.2	366.7	319.8	304.3
32.5°	440.5	405.0	339.8	288.9	270.0
35°	422.8	382.1	311.8	257.4	238.0
37.5°	403.9	359.3	284.3	227.7	206.5
40°	384.4	335.8	256.3	196.8	176.2
42.5°	364.4	311.8	228.3	167.6	146.4
45°	344.4	287.8	201.9	139.6	117.8
47.5°	323.8	263.2	174.5	112.1	93.2
50°	302.6	239.1	148.2	87.5	69.2
52.5°	281.5	214.5	121.3	63.5	46.9
55°	259.7	190.5	96.7	42.3	27.5
57.5°	238.0	165.9	73.8	23.5	10.3
60°	215.7	142.4	52.1	8.0	6.9
62.5°	193.9	117.3	32.6	6.3	5.1
65°	171.0	94.4	16.0	4.6	3.4
67.5°	148.7	72.7	6.9	2.9	1.7
70°	125.3	52.6	4.6	1.7	1.1
72.5°	103.5	33.8	2.9	1.1	0.6
75°	82.4	17.7	1.1	0.6	0.6
77.5°	61.8	7.4	0.6	0.6	0.6
80°	42.3	3.4	0.6	0.6	0.0
82.5°	25.2	1.1	0.6	0.6	0.0
85°	9.7	0.0	0.0	0.0	0.0
87.5°	0.6	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	15.95	17.34	16.32	17.65	17.97	0.83	2.22	1.20	2.53	2.84
	3H	17.50	18.73	17.88	19.06	19.43	0.75	1.98	1.13	2.31	2.67
	4H	18.03	19.17	18.43	19.52	19.90	0.69	1.83	1.09	2.18	2.56
	6H	18.37	19.42	18.78	19.79	20.18	0.62	1.67	1.03	2.04	2.43
	8H	18.45	19.44	18.88	19.83	20.24	0.58	1.57	1.01	1.96	2.37
	12H	18.46	19.42	18.90	19.80	20.23	0.54	1.49	0.97	1.87	2.30
4H	2H	15.76	16.90	16.16	17.25	17.63	1.69	2.83	2.09	3.18	3.57
	3H	17.37	18.31	17.78	18.71	19.11	1.64	2.57	2.05	2.98	3.38
	4H	17.89	18.73	18.33	19.15	19.59	1.56	2.40	2.00	2.81	3.26
	6H	18.27	18.99	18.73	19.43	19.90	1.50	2.22	1.96	2.66	3.13
	8H	18.37	19.04	18.83	19.48	19.95	1.45	2.12	1.91	2.56	3.03
	12H	18.40	19.00	18.89	19.48	19.95	1.40	2.00	1.89	2.48	2.95
8H	4H	17.77	18.44	18.23	18.88	19.35	2.58	3.25	3.05	3.70	4.17
	6H	18.12	18.67	18.62	19.16	19.65	2.50	3.05	3.00	3.54	4.02
	8H	18.22	18.71	18.74	19.22	19.71	2.45	2.94	2.97	3.45	3.95
	12H	18.26	18.69	18.77	19.19	19.76	2.41	2.84	2.92	3.34	3.91
12H	4H	17.72	18.32	18.21	18.80	19.27	2.66	3.25	3.14	3.73	4.21
	6H	18.06	18.55	18.58	19.07	19.56	2.56	3.06	3.08	3.57	4.06
	8H	18.17	18.61	18.69	19.10	19.67	2.53	2.97	3.04	3.46	4.03