

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: P1056439

Luminaire Tested: S125R3DR-S610D830-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056439
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-S610D830-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

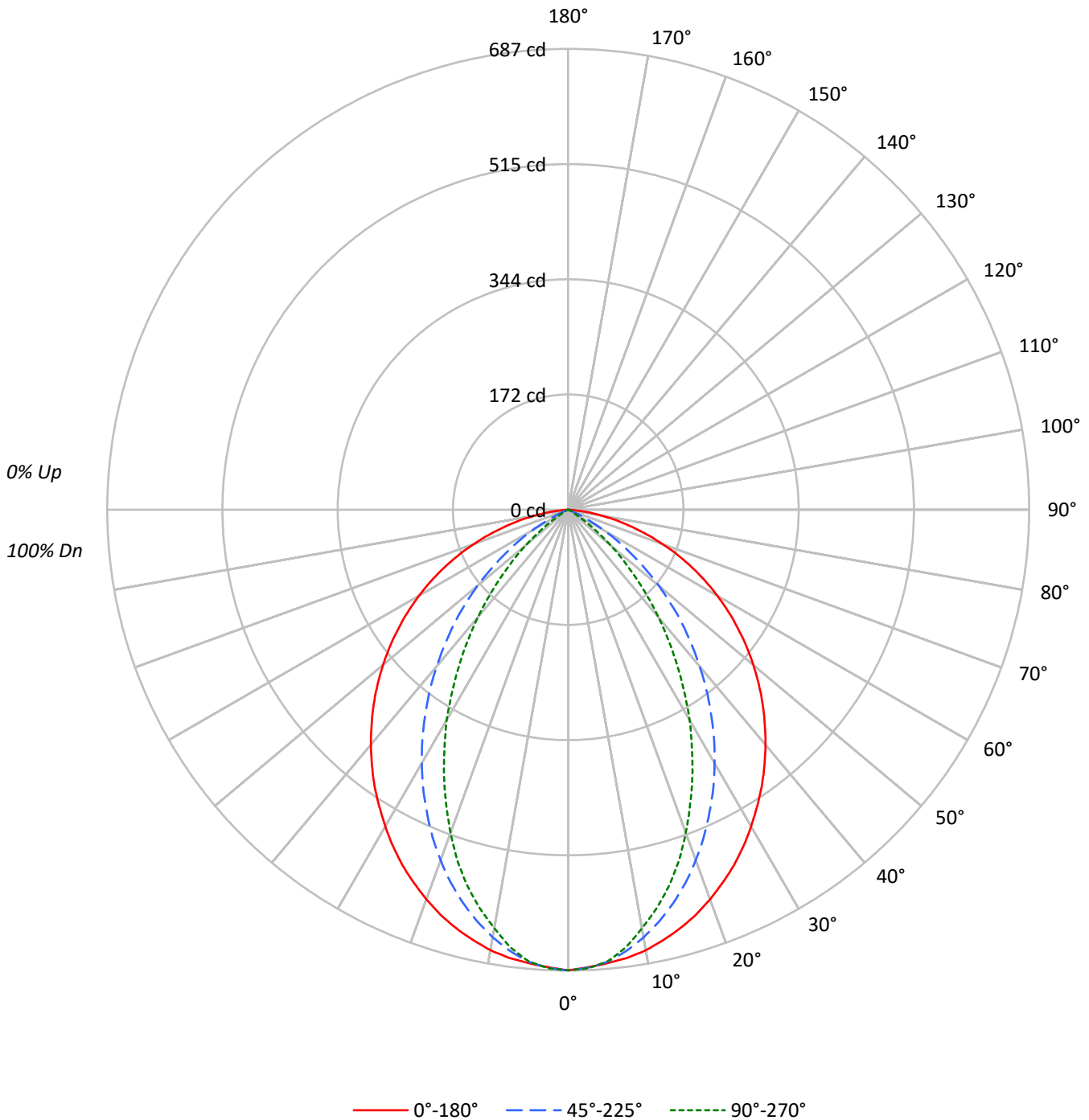
Lumens per Lamp: N/A
Luminaire Lumens: 1113.2 lumens
Efficiency: N/A
Efficacy: 58.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
Input Voltage (V): 120
Input Current (A_{in}): 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°	4855	4855	4855
5°	4816	4801	4796
10°	4788	4647	4549
15°	4727	4439	4249
20°	4649	4184	3856
25°	4561	3886	3419
30°	4450	3562	2956
35°	4341	3202	2444
40°	4221	2814	1934
45°	4097	2402	1402
50°	3960	1939	906
55°	3808	1417	403
60°	3628	875	116
65°	3404	319	69
70°	3082	112	29
75°	2677	38	19
80°	2052	28	0
85°	941	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4097 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.8	5.7
10°-20°	171.3	15.4
20°-30°	231.7	20.8
30°-40°	238.0	21.4
40°-50°	197.2	17.7
50°-60°	126.6	11.4
60°-70°	61.2	5.5
70°-80°	20.7	1.9
80°-90°	2.7	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°	466.8	41.9
0°-40°	704.8	63.3
0°-60°	1028.7	92.4
0°-90°	1113.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1113.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	687	687	687	687	687	
5°	679	684	677	672	676	64
15°	646	638	606	585	581	182
25°	585	556	498	453	438	269
35°	503	455	371	306	283	314
45°	410	342	240	166	140	316
55°	309	227	115	50	33	276
65°	204	112	19	5	4	201
75°	98	21	1	1	1	104
85°	12	0	0	0	0	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	686.8	686.8	686.8	686.8	686.8
2.5°	682.7	688.1	683.4	682.7	684.1
5°	678.6	684.1	676.6	672.5	675.9
7.5°	673.8	676.6	663.6	656.8	658.2
10°	667.0	666.4	647.3	635.7	633.7
12.5°	656.8	653.4	628.2	611.9	608.5
15°	645.9	637.8	606.5	585.4	580.6
17.5°	633.0	620.1	582.6	555.4	548.6
20°	618.0	600.3	556.1	522.7	512.5
22.5°	601.7	579.2	528.2	488.7	475.1
25°	584.7	556.1	498.2	453.3	438.3
27.5°	565.6	532.3	468.3	417.2	398.9
30°	545.2	507.1	436.3	380.5	362.1
32.5°	524.1	481.9	404.3	343.7	321.3
35°	503.0	454.7	371.0	306.3	283.2
37.5°	480.5	427.4	338.3	270.9	245.7
40°	457.4	399.5	304.9	234.1	209.6
42.5°	433.6	371.0	271.6	199.4	174.2
45°	409.8	342.4	240.3	166.1	140.2
47.5°	385.2	313.1	207.6	133.4	110.9
50°	360.1	284.5	176.3	104.1	82.4
52.5°	334.9	255.2	144.3	75.6	55.8
55°	309.0	226.7	115.0	50.4	32.7
57.5°	283.2	197.4	87.8	27.9	12.3
60°	256.6	169.5	61.9	9.5	8.2
62.5°	230.7	139.5	38.8	7.5	6.1
65°	203.5	112.3	19.1	5.4	4.1
67.5°	177.0	86.4	8.2	3.4	2.0
70°	149.1	62.6	5.4	2.0	1.4
72.5°	123.2	40.2	3.4	1.4	0.7
75°	98.0	21.1	1.4	0.7	0.7
77.5°	73.5	8.8	0.7	0.7	0.7
80°	50.4	4.1	0.7	0.7	0.0
82.5°	29.9	1.4	0.7	0.7	0.0
85°	11.6	0.0	0.0	0.0	0.0
87.5°	0.7	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	16.56	17.94	16.92	18.26	18.57	1.42	2.81	1.79	3.12	3.44
	3H	18.11	19.34	18.49	19.67	20.03	1.34	2.57	1.72	2.90	3.27
	4H	18.63	19.78	19.03	20.13	20.51	1.28	2.42	1.68	2.77	3.16
	6H	18.97	20.02	19.38	20.39	20.78	1.21	2.26	1.62	2.63	3.02
	8H	19.05	20.05	19.48	20.44	20.84	1.17	2.17	1.60	2.56	2.96
	12H	19.07	20.02	19.50	20.40	20.83	1.13	2.08	1.56	2.46	2.89
4H	2H	16.36	17.51	16.76	17.86	18.24	2.29	3.43	2.69	3.78	4.17
	3H	17.98	18.91	18.39	19.31	19.72	2.24	3.17	2.65	3.58	3.98
	4H	18.50	19.33	18.93	19.75	20.19	2.16	3.00	2.60	3.41	3.86
	6H	18.87	19.59	19.33	20.04	20.50	2.10	2.82	2.56	3.26	3.73
	8H	18.97	19.64	19.44	20.09	20.56	2.05	2.72	2.51	3.16	3.63
	12H	19.01	19.60	19.49	20.08	20.56	2.00	2.60	2.49	3.08	3.55
8H	4H	18.37	19.04	18.84	19.49	19.96	3.18	3.85	3.65	4.30	4.77
	6H	18.73	19.27	19.23	19.77	20.25	3.10	3.65	3.60	4.14	4.62
	8H	18.82	19.31	19.34	19.83	20.32	3.05	3.54	3.57	4.05	4.55
	12H	18.86	19.30	19.38	19.79	20.36	3.01	3.44	3.52	3.94	4.51
12H	4H	18.33	18.92	18.81	19.40	19.88	3.26	3.85	3.75	4.34	4.81
	6H	18.67	19.16	19.19	19.67	20.16	3.16	3.66	3.68	4.17	4.66
	8H	18.78	19.21	19.29	19.71	20.28	3.13	3.57	3.64	4.06	4.63