

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: P1056441

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056441
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-10)
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-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

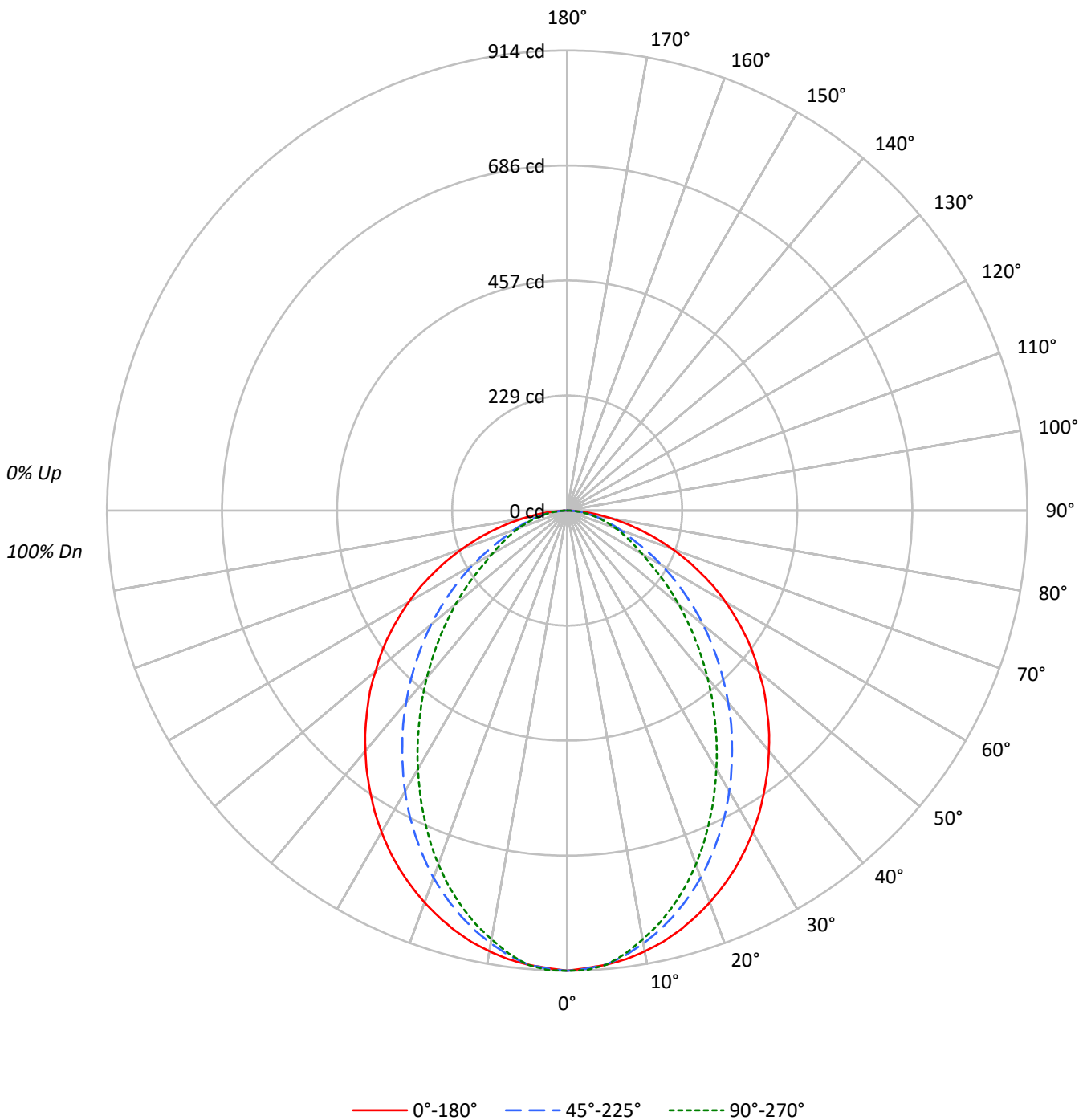
Lumens per Lamp: N/A
Luminaire Lumens: 1937.4 lumens
Efficiency: N/A
Efficacy: 101.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
Input Voltage (V): 120
Input Current (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

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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	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6462	6462	6462
5°	6424	6419	6424
10°	6381	6264	6205
15°	6317	6072	5948
20°	6232	5837	5627
25°	6137	5558	5246
30°	6017	5256	4839
35°	5886	4929	4417
40°	5754	4592	4001
45°	5614	4239	3586
50°	5465	3878	3174
55°	5327	3482	2760
60°	5139	3060	2425
65°	4884	2596	2255
70°	4587	2321	2110
75°	4146	2139	1988
80°	3603	1938	1856
85°	2815	1711	1711

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5614 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.5	4.4
10°-20°	234.8	12.1
20°-30°	331.7	17.1
30°-40°	365.2	18.8
40°-50°	340.6	17.6
50°-60°	271.9	14.0
60°-70°	183.0	9.4
70°-80°	97.5	5.0
80°-90°	27.1	1.4
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°	652.1	33.7
0°-40°	1017.3	52.5
0°-60°	1629.9	84.1
0°-90°	1937.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1937.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	914	914	914	914	914	
5°	905	913	905	902	905	86
15°	863	858	830	815	813	243
25°	787	763	713	681	672	362
35°	682	642	571	526	512	427
45°	562	508	424	372	359	434
55°	432	367	282	238	224	386
65°	292	228	155	138	135	290
75°	152	101	78	74	73	162
85°	35	24	21	22	21	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	914.1	914.1	914.1	914.1	914.1
2.5°	909.3	916.8	910.7	912.1	913.4
5°	905.3	912.8	904.6	901.9	905.3
7.5°	898.5	904.6	891.0	884.8	887.6
10°	888.9	893.0	872.6	864.4	864.4
12.5°	877.4	877.4	852.9	841.3	841.3
15°	863.1	858.3	829.7	815.4	812.7
17.5°	846.7	837.9	803.8	785.5	782.1
20°	828.4	814.1	775.9	752.1	748.0
22.5°	807.9	789.6	745.3	716.0	711.3
25°	786.8	763.0	712.6	681.3	672.5
27.5°	763.0	734.4	679.3	643.9	633.0
30°	737.1	704.5	643.9	604.4	592.8
32.5°	710.6	673.8	607.8	565.6	552.7
35°	682.0	641.9	571.1	526.1	511.8
37.5°	653.4	609.9	535.0	488.0	473.1
40°	623.5	575.8	497.6	449.2	433.6
42.5°	593.5	542.5	460.8	411.8	395.5
45°	561.5	508.4	424.0	372.3	358.7
47.5°	530.9	473.7	388.0	337.6	322.6
50°	496.9	437.7	352.6	302.2	288.6
52.5°	465.6	402.3	317.2	270.2	255.9
55°	432.2	366.9	282.5	237.5	223.9
57.5°	397.5	331.5	249.1	206.9	194.0
60°	363.5	296.1	216.4	177.6	171.5
62.5°	328.8	262.7	185.8	155.9	151.8
65°	292.0	228.0	155.2	137.5	134.8
67.5°	257.3	194.7	130.7	120.5	117.8
70°	221.9	161.3	112.3	103.5	102.1
72.5°	187.2	129.3	94.6	88.5	87.1
75°	151.8	100.7	78.3	73.5	72.8
77.5°	119.1	75.6	61.9	59.9	58.5
80°	88.5	56.5	47.6	46.3	45.6
82.5°	60.6	38.8	34.0	34.0	32.7
85°	34.7	23.8	21.1	21.8	21.1
87.5°	12.9	10.2	9.5	10.2	10.2
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	17.77	19.31	18.14	19.63	19.94	14.15	15.69	14.52	16.01	16.32
	3H	19.56	20.94	19.93	21.27	21.63	15.63	17.01	16.01	17.34	17.70
	4H	20.21	21.51	20.61	21.86	22.24	16.22	17.52	16.62	17.87	18.25
	6H	20.69	21.89	21.10	22.25	22.65	16.68	17.88	17.09	18.25	18.64
	8H	20.84	21.99	21.27	22.37	22.78	16.84	17.99	17.27	18.38	18.78
	12H	20.94	22.03	21.37	22.41	22.84	16.96	18.05	17.39	18.43	18.86
4H	2H	17.91	19.21	18.31	19.55	19.93	14.83	16.13	15.23	16.48	16.86
	3H	19.88	20.96	20.29	21.36	21.76	16.51	17.59	16.92	17.99	18.39
	4H	20.62	21.60	21.05	22.01	22.45	17.21	18.18	17.64	18.60	19.04
	6H	21.22	22.06	21.67	22.51	22.97	17.80	18.64	18.25	19.09	19.55
	8H	21.42	22.22	21.89	22.66	23.13	18.00	18.80	18.47	19.24	19.71
	12H	21.57	22.28	22.05	22.76	23.23	18.17	18.88	18.65	19.35	19.82
8H	4H	20.68	21.48	21.15	21.92	22.39	17.57	18.37	18.04	18.81	19.28
	6H	21.34	22.00	21.84	22.49	22.97	18.28	18.93	18.77	19.42	19.90
	8H	21.60	22.19	22.11	22.70	23.18	18.56	19.15	19.07	19.66	20.15
	12H	21.81	22.33	22.32	22.82	23.38	18.80	19.32	19.31	19.82	20.38
12H	4H	20.68	21.39	21.16	21.86	22.34	17.62	18.33	18.10	18.81	19.28
	6H	21.34	21.93	21.85	22.44	22.93	18.35	18.94	18.86	19.45	19.93
	8H	21.63	22.15	22.14	22.65	23.21	18.69	19.21	19.20	19.70	20.27