

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1062115

Luminaire Tested: S125RDR-H610D850-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062115
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-46)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDR-H610D850-X4F0-XX-UDD-WVL-B
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

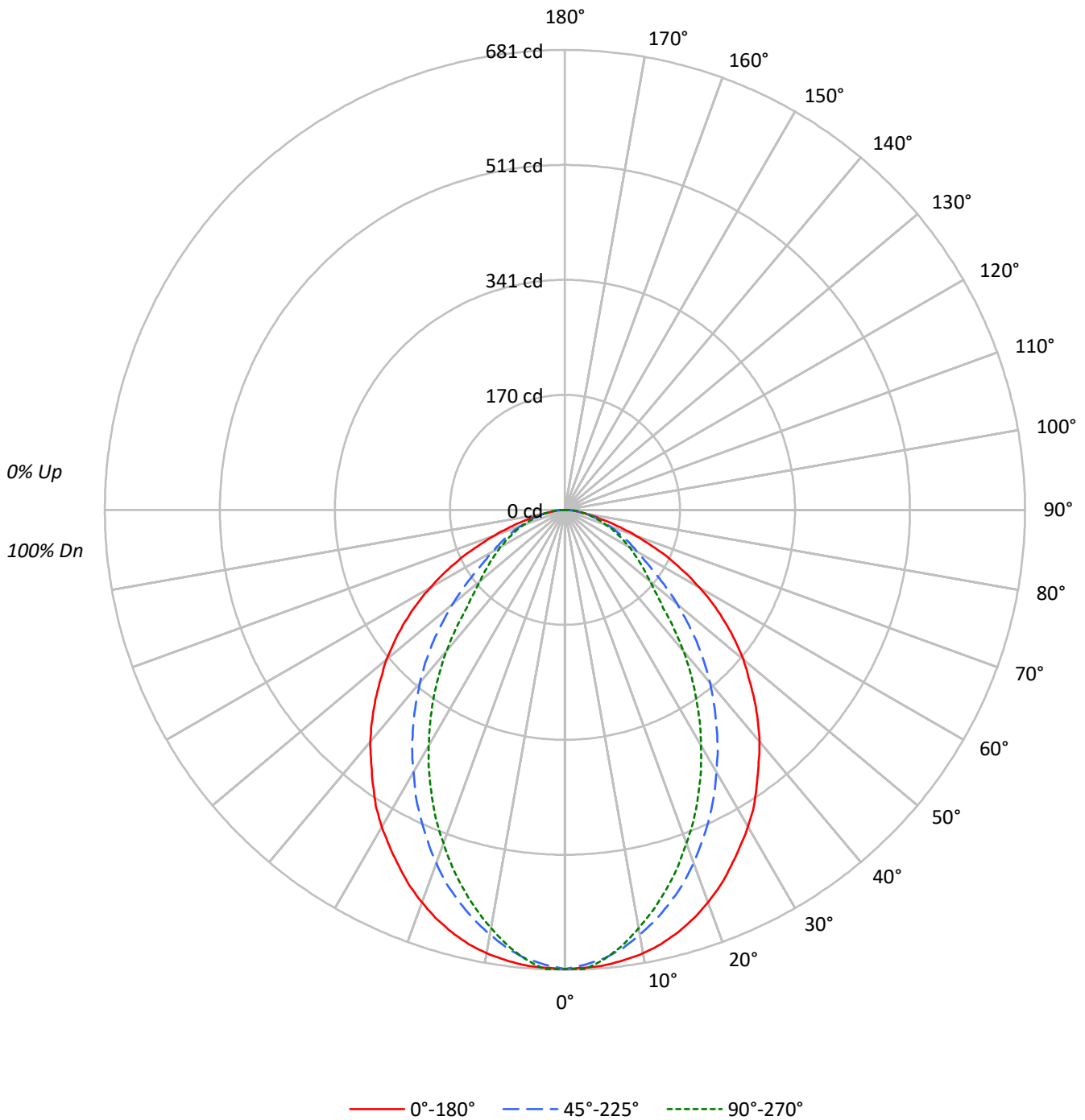
Lumens per Lamp: N/A
Luminaire Lumens: 1288.2 lumens
Efficiency: N/A
Efficacy: 74.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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: P1062115

CATALOG NUMBER: S125RDR-H610D850-X4F0-XX-UDD-WVL-B

Luminous Intensity Polar Plot





TEST NUMBER: P1062115

CATALOG NUMBER: S125RDR-H610D850-X4F0-XX-UDD-WVL-B

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	100	100	100	100	100														
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87	87	87	87	87														
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75	75	75	75	75	75	75														
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65	65	65	65	65	65	65														
4	86	75	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57	57	57	57	57	57	57														
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52	50	50	50	50	50	50	50														
6	74	62	54	48	73	61	53	48	59	53	47	58	52	47	56	51	47	45	45	45	45	45	45	45														
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	40	40	40	40	40	40	40														
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38	36	36	36	36	36	36	36														
9	61	48	41	35	60	48	40	35	47	40	35	46	39	35	45	39	35	33	33	33	33	33	33	33														
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	30	30	30	30	30	30	30														

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4682	4682	4682
5°	4680	4608	4618
10°	4661	4465	4398
15°	4615	4290	4142
20°	4533	4079	3852
25°	4420	3836	3545
30°	4309	3563	3205
35°	4164	3289	2843
40°	4028	2999	2449
45°	3861	2682	2006
50°	3693	2325	1756
55°	3466	1941	1622
60°	3162	1698	1515
65°	2766	1551	1408
70°	2245	1397	1309
75°	1609	1277	1218
80°	1114	1142	1142
85°	814	995	1051

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3861 cd/sqm



TEST NUMBER: P1062115

CATALOG NUMBER: S125RDR-H610D850-X4F0-XX-UDD-WVL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.2	4.9
10°-20°	171.0	13.3
20°-30°	236.4	18.3
30°-40°	251.8	19.5
40°-50°	221.2	17.2
50°-60°	167.7	13.0
60°-70°	108.9	8.5
70°-80°	54.0	4.2
80°-90°	14.1	1.1
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°	470.6	36.5
0°-40°	722.4	56.1
0°-60°	1111.2	86.3
0°-90°	1288.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1288.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	680	680	680	680	680	
5°	677	676	667	669	668	64
15°	648	633	602	588	581	182
25°	582	550	505	479	467	268
35°	495	450	391	356	338	310
45°	396	341	275	226	206	306
55°	289	232	162	140	135	258
65°	170	126	95	88	86	168
75°	60	53	48	46	46	68
85°	10	12	13	13	13	13
90°	0	0	0	0	0	

TEST NUMBER: P1062115

CATALOG NUMBER: S125RDR-H610D850-X4F0-XX-UDD-WVL-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	680.0	680.0	680.0	680.0	680.0
2.5°	678.5	680.0	674.1	679.3	680.8
5°	677.1	675.6	666.7	668.9	668.2
7.5°	672.6	669.7	654.9	653.4	650.5
10°	666.7	659.3	638.7	633.5	629.1
12.5°	658.6	646.8	621.7	611.4	606.2
15°	647.5	632.8	601.8	587.7	581.1
17.5°	634.2	613.6	581.1	561.9	554.5
20°	618.7	594.4	556.7	534.6	525.7
22.5°	601.8	573.0	530.9	507.2	497.6
25°	581.8	550.1	505.0	479.2	466.6
27.5°	561.9	526.4	477.7	448.9	435.6
30°	542.0	501.3	448.2	417.2	403.1
32.5°	520.5	475.5	420.9	386.9	370.7
35°	495.4	449.7	391.3	355.9	338.2
37.5°	471.1	422.3	362.5	322.7	305.7
40°	448.2	396.5	333.7	290.2	272.5
42.5°	422.3	369.2	304.9	259.2	239.2
45°	396.5	341.1	275.4	225.9	206.0
47.5°	369.2	314.5	244.4	195.7	182.4
50°	344.8	287.2	217.1	172.8	163.9
52.5°	316.8	260.6	189.0	155.1	149.1
55°	288.7	231.8	161.7	139.5	135.1
57.5°	259.9	206.0	140.3	126.3	121.8
60°	229.6	179.4	123.3	112.2	110.0
62.5°	199.4	152.1	108.5	100.4	97.5
65°	169.8	126.3	95.2	87.9	86.4
67.5°	139.5	102.6	82.0	76.8	76.1
70°	111.5	83.4	69.4	66.5	65.0
72.5°	85.6	66.5	58.3	56.1	55.4
75°	60.5	53.2	48.0	46.5	45.8
77.5°	40.6	40.6	38.4	36.9	37.7
80°	28.1	29.5	28.8	28.8	28.8
82.5°	18.5	19.9	20.7	20.7	20.7
85°	10.3	11.8	12.6	12.6	13.3
87.5°	3.7	4.4	5.2	5.9	5.9
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1062115
 CATALOG NUMBER: S125RDR-H610D850-X4F0-XX-UDD-WVL-B

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	15.92	17.41	16.28	17.72	18.04	12.16	13.65	12.52	13.97	14.28
	3H	17.23	18.56	17.61	18.89	19.25	13.74	15.08	14.12	15.41	15.77
	4H	17.60	18.85	18.00	19.20	19.58	14.35	15.60	14.75	15.95	16.33
	6H	17.77	18.93	18.18	19.30	19.69	14.82	15.97	15.23	16.34	16.73
	8H	17.81	18.91	18.24	19.30	19.70	14.98	16.08	15.40	16.47	16.87
	12H	17.82	18.88	18.25	19.26	19.69	15.09	16.14	15.52	16.53	16.95
4H	2H	16.03	17.28	16.43	17.63	18.01	12.82	14.07	13.22	14.42	14.80
	3H	17.51	18.55	17.93	18.95	19.35	14.60	15.64	15.01	16.04	16.44
	4H	17.99	18.92	18.42	19.34	19.78	15.32	16.25	15.75	16.67	17.11
	6H	18.28	19.09	18.73	19.53	19.99	15.91	16.72	16.37	17.16	17.62
	8H	18.35	19.10	18.81	19.55	20.02	16.11	16.87	16.58	17.32	17.78
	12H	18.39	19.06	18.87	19.54	20.01	16.27	16.95	16.75	17.42	17.90
8H	4H	18.07	18.83	18.54	19.28	19.74	15.63	16.39	16.10	16.83	17.30
	6H	18.44	19.06	18.93	19.55	20.03	16.34	16.96	16.84	17.45	17.93
	8H	18.55	19.11	19.07	19.62	20.11	16.62	17.18	17.13	17.69	18.18
	12H	18.64	19.14	19.15	19.63	20.19	16.85	17.34	17.36	17.84	18.40
12H	4H	18.07	18.74	18.55	19.22	19.69	15.66	16.33	16.14	16.81	17.28
	6H	18.44	19.00	18.95	19.51	20.00	16.39	16.95	16.90	17.46	17.95
	8H	18.60	19.09	19.11	19.59	20.15	16.73	17.22	17.24	17.71	18.28