

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: P1062082

Luminaire Tested: S125RDR-H610D830-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062082
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-48)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDR-H610D830-X4F0-XX-UDD-BVL-B
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

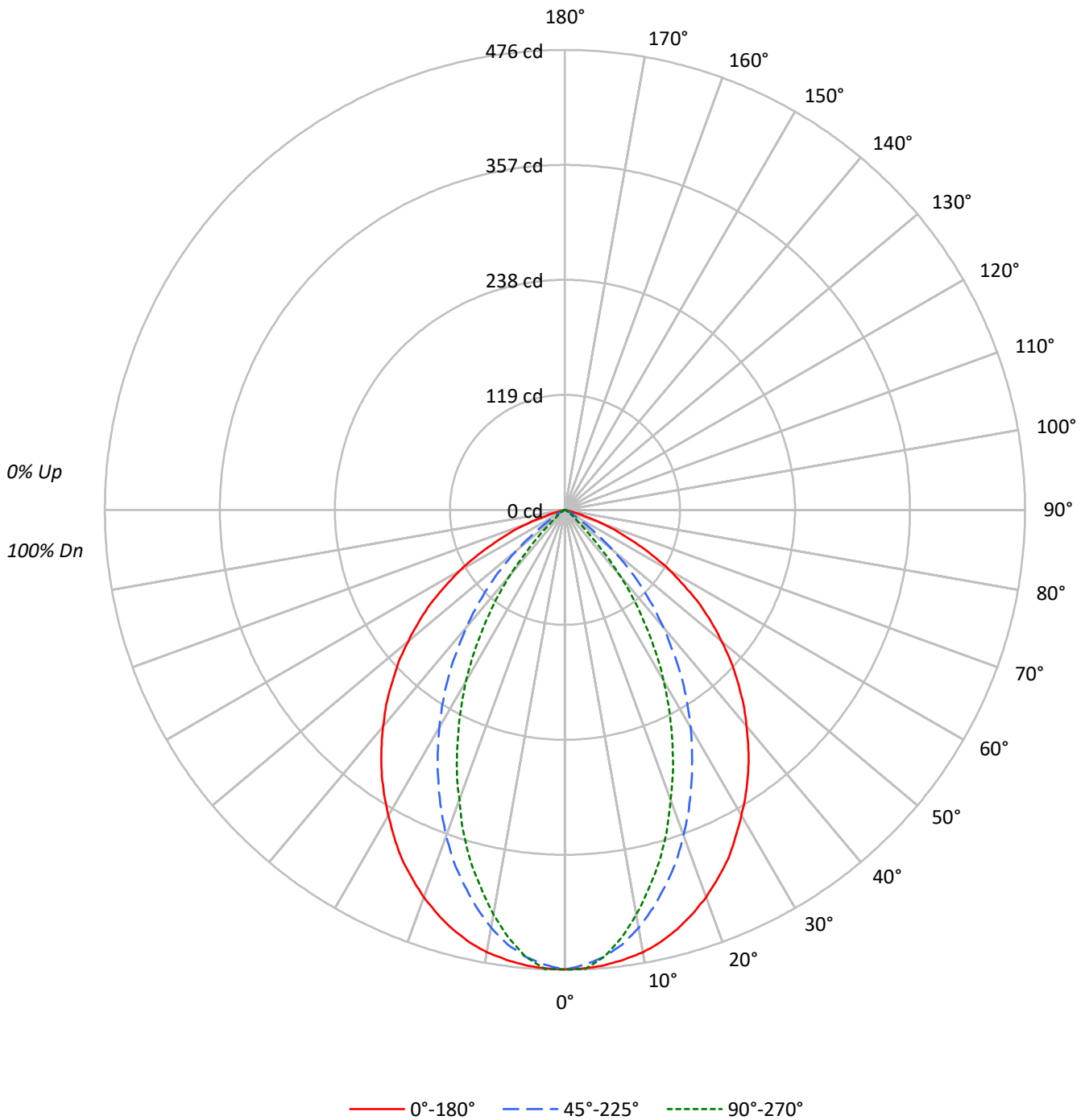
Lumens per Lamp: N/A
Luminaire Lumens: 614.5 lumens
Efficiency: N/A
Efficacy: 35.3 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

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: P1062082

CATALOG NUMBER: S125RDR-H610D830-X4F0-XX-UDD-BVL-B

Luminous Intensity Polar Plot





TEST NUMBER: P1062082

CATALOG NUMBER: S125RDR-H610D830-X4F0-XX-UDD-BVL-B

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	109	106	103	110	107	104	102	103	101	99	99	97	96	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73
4	92	83	76	71	90	82	75	70	79	74	70	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	62	57	67	61	57	66	61	57	65	60	56	54
7	76	65	58	53	74	64	57	52	63	56	52	61	56	52	60	55	51	50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3275	3275	3275
5°	3270	3210	3210
10°	3251	3071	2974
15°	3203	2867	2688
20°	3126	2630	2340
25°	3032	2355	1993
30°	2903	2066	1627
35°	2780	1762	1219
40°	2628	1421	790
45°	2463	1075	342
50°	2265	686	127
55°	2042	301	90
60°	1728	129	61
65°	1308	81	31
70°	795	38	12
75°	168	16	16
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2463 cd/sqm



TEST NUMBER: P1062082

CATALOG NUMBER: S125RDR-H610D830-X4F0-XX-UDD-BVL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.8	7.1
10°-20°	114.3	18.6
20°-30°	146.8	23.9
30°-40°	138.2	22.5
40°-50°	96.6	15.7
50°-60°	51.6	8.4
60°-70°	20.6	3.3
70°-80°	2.7	0.4
80°-90°	0.0	0.0
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°	304.9	49.6
0°-40°	443.1	72.1
0°-60°	591.2	96.2
0°-90°	614.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	614.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	476	476	476	476	476	
5°	473	472	464	466	464	45
15°	449	435	402	383	377	126
25°	399	364	310	276	262	183
35°	331	278	210	162	145	206
45°	253	190	110	53	35	195
55°	170	104	25	9	8	151
65°	80	32	5	2	2	80
75°	6	2	1	1	1	12
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P1062082

CATALOG NUMBER: S125RDR-H610D830-X4F0-XX-UDD-BVL-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	475.6	475.6	475.6	475.6	475.6
2.5°	475.0	475.6	471.3	475.0	475.6
5°	473.1	471.9	464.4	465.6	464.4
7.5°	469.4	466.2	453.7	449.3	446.8
10°	465.0	458.1	439.3	429.8	425.4
12.5°	458.1	448.0	421.7	407.3	401.0
15°	449.3	434.9	402.2	383.4	377.1
17.5°	438.6	419.8	382.2	358.9	349.5
20°	426.7	401.6	358.9	331.3	319.4
22.5°	412.9	384.0	335.1	304.3	292.4
25°	399.1	364.0	310.0	276.1	262.3
27.5°	382.2	343.2	284.9	248.5	233.4
30°	365.2	322.5	259.8	220.3	204.6
32.5°	348.3	300.6	234.7	190.8	175.1
35°	330.7	278.0	209.6	161.9	145.0
37.5°	311.9	255.4	182.6	134.3	116.7
40°	292.4	233.4	158.1	107.3	87.9
42.5°	273.6	211.5	133.7	80.9	59.6
45°	252.9	189.5	110.4	53.3	35.1
47.5°	233.4	168.2	86.6	30.7	18.2
50°	211.5	146.2	64.0	16.3	11.9
52.5°	190.8	124.9	42.7	10.7	9.4
55°	170.1	104.2	25.1	8.8	7.5
57.5°	146.2	84.1	13.8	6.9	5.6
60°	125.5	65.9	9.4	5.0	4.4
62.5°	101.7	48.3	6.9	3.8	3.1
65°	80.3	32.0	5.0	2.5	1.9
67.5°	59.6	18.8	3.1	1.3	1.3
70°	39.5	10.0	1.9	0.6	0.6
72.5°	20.7	4.4	1.3	0.6	0.6
75°	6.3	1.9	0.6	0.6	0.6
77.5°	0.0	0.6	0.0	0.0	0.6
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	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

TEST NUMBER: P1062082
 CATALOG NUMBER: S125RDR-H610D830-X4F0-XX-UDD-BVL-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	13.07	14.33	13.43	14.64	14.96	0.00	0.00	0.00	0.00	0.00
	3H	13.65	14.76	14.03	15.09	15.46	0.00	0.00	0.00	0.00	0.00
	4H	13.61	14.65	14.02	15.00	15.38	0.00	0.00	0.00	0.00	0.00
	6H	13.53	14.47	13.94	14.84	15.24	0.00	0.00	0.00	0.00	0.00
	8H	13.48	14.37	13.91	14.77	15.17	0.00	0.00	0.00	0.00	0.00
	12H	13.44	14.29	13.87	14.67	15.10	0.00	0.00	0.00	0.00	0.00
4H	2H	12.84	13.87	13.24	14.22	14.61	0.00	0.00	0.00	0.00	0.00
	3H	13.43	14.27	13.84	14.67	15.07	0.00	0.00	0.00	0.00	0.00
	4H	13.38	14.12	13.82	14.54	14.99	0.00	0.00	0.00	0.00	0.00
	6H	13.29	13.93	13.76	14.38	14.85	0.00	0.00	0.00	0.00	0.00
	8H	13.23	13.83	13.70	14.27	14.75	0.00	0.00	0.00	0.00	0.00
	12H	13.18	13.70	13.67	14.19	14.66	0.00	0.00	0.00	0.00	0.00
8H	4H	13.23	13.83	13.70	14.27	14.75	0.00	0.00	0.00	0.00	0.00
	6H	13.13	13.61	13.63	14.11	14.59	0.00	0.00	0.00	0.00	0.00
	8H	13.06	13.49	13.58	14.01	14.50	0.00	0.00	0.00	0.00	0.00
	12H	13.01	13.39	13.53	13.89	14.46	0.00	0.00	0.00	0.00	0.00
12H	4H	13.18	13.70	13.67	14.19	14.66	0.00	0.00	0.00	0.00	0.00
	6H	13.06	13.49	13.58	14.01	14.50	0.00	0.00	0.00	0.00	0.00
	8H	13.01	13.39	13.53	13.89	14.46	0.00	0.00	0.00	0.00	0.00