

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: P1062083

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062083
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-87)
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-S
Description: DEFINE 5 SILVER 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

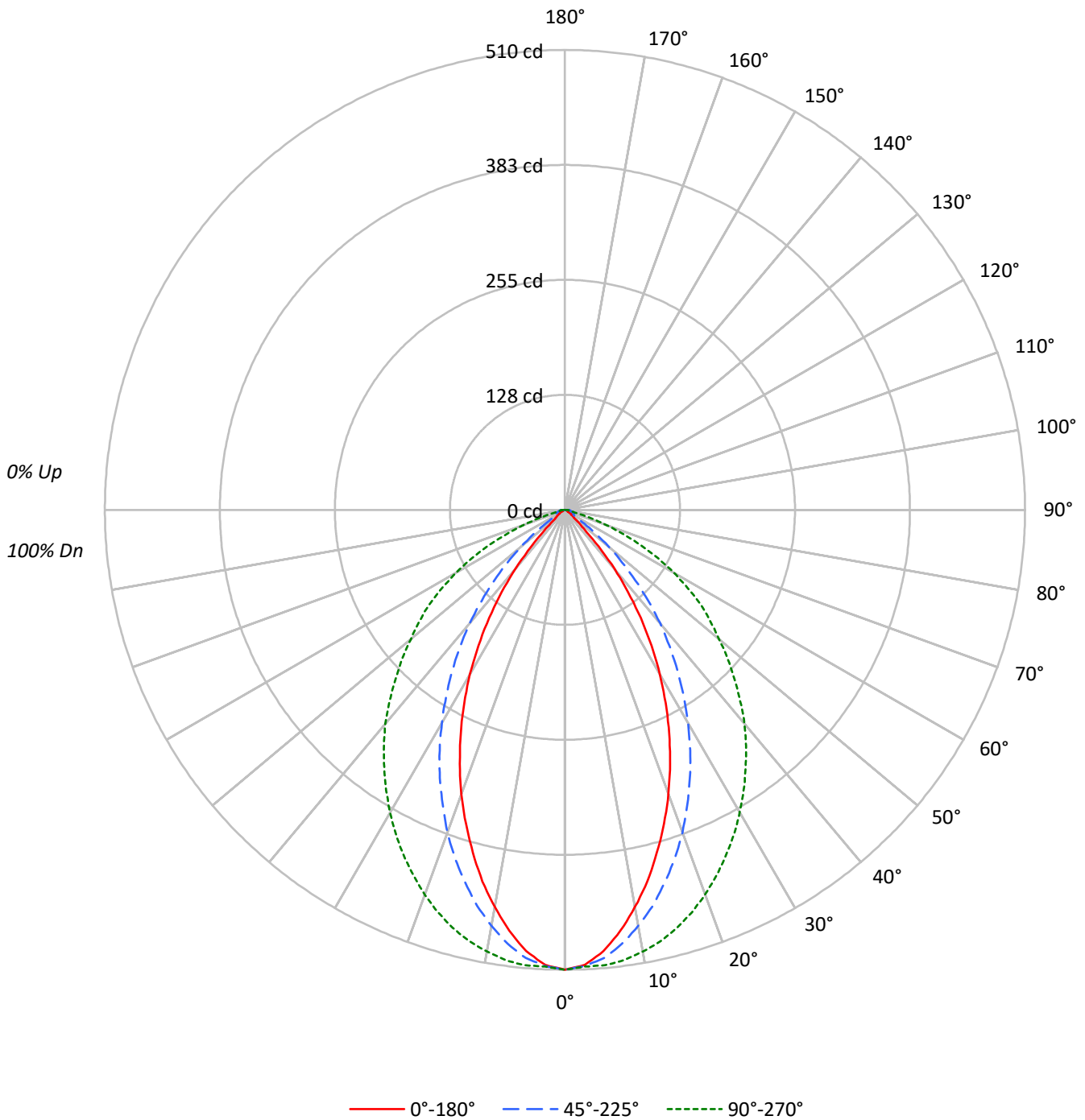
Lumens per Lamp: N/A
Luminaire Lumens: 655.9 lumens
Efficiency: N/A
Efficacy: 37.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.14 / 0.98
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

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: P1062083

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

Luminous Intensity Polar Plot





TEST NUMBER: P1062083

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

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	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	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81				
3	98	90	83	78	95	88	82	78	85	80	76	83	79	75	80	77	74	72				
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65				
5	85	75	68	63	84	74	67	62	72	66	62	70	65	61	69	64	61	59				
6	80	69	62	57	78	68	62	57	67	61	56	65	60	56	64	59	55	54				
7	75	64	57	52	74	63	56	52	62	56	51	61	55	51	59	54	51	49				
8	71	60	52	47	69	59	52	47	58	52	47	57	51	47	55	50	47	45				
9	67	55	48	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42				
10	63	52	45	41	62	51	45	40	50	44	40	50	44	40	49	44	40	39				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3511	3511	3511
5°	3395	3447	3503
10°	3127	3275	3478
15°	2807	3049	3421
20°	2458	2789	3327
25°	2076	2491	3211
30°	1673	2167	3081
35°	1230	1826	2935
40°	768	1473	2783
45°	287	1076	2587
50°	135	673	2389
55°	98	278	2209
60°	69	147	1911
65°	41	174	1515
70°	38	201	960
75°	51	200	301
80°	75	250	226
85°	150	395	300

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2587 cd/sqm



TEST NUMBER: P1062083

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.8	7.1
10°-20°	121.1	18.5
20°-30°	154.2	23.5
30°-40°	143.5	21.9
40°-50°	98.4	15.0
50°-60°	54.2	8.3
60°-70°	25.6	3.9
70°-80°	8.1	1.2
80°-90°	4.1	0.6
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°	322.1	49.1
0°-40°	465.6	71.0
0°-60°	618.1	94.2
0°-90°	655.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	655.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	510	510	510	510	510	
5°	491	497	499	502	507	45
15°	394	406	428	460	480	110
25°	273	290	328	381	423	125
35°	146	167	217	289	349	91
45°	30	50	110	196	266	28
55°	8	9	23	109	184	7
65°	2	3	11	40	93	3
75°	2	3	8	8	11	2
85°	2	4	5	4	4	2
90°	0	0	0	0	0	



TEST NUMBER: P1062083

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	510.0	510.0	510.0	510.0	510.0
2.5°	505.0	510.0	506.2	506.2	506.9
5°	491.2	497.4	498.7	502.5	506.9
7.5°	471.1	479.2	485.5	496.2	503.7
10°	447.2	457.2	468.5	486.1	497.4
12.5°	422.1	432.7	449.7	474.2	489.9
15°	393.8	406.4	427.7	459.8	479.9
17.5°	364.9	378.7	405.1	442.8	467.9
20°	335.4	349.8	380.6	422.7	454.1
22.5°	304.6	320.3	354.2	402.0	439.0
25°	273.2	290.2	327.9	380.6	422.7
27.5°	241.8	259.4	300.8	358.6	405.7
30°	210.4	228.6	272.6	336.0	387.5
32.5°	178.4	198.5	244.9	313.4	368.7
35°	146.3	167.1	217.3	288.9	349.2
37.5°	114.9	136.3	190.3	265.7	329.7
40°	85.4	106.8	163.9	242.4	309.6
42.5°	55.3	77.9	136.3	218.6	287.7
45°	29.5	49.6	110.5	196.0	265.7
47.5°	15.7	26.4	86.0	173.3	244.9
50°	12.6	14.4	62.8	150.7	223.0
52.5°	10.0	11.3	40.2	127.5	203.5
55°	8.2	9.4	23.2	109.3	184.0
57.5°	6.3	7.5	13.2	91.1	161.4
60°	5.0	5.7	10.7	72.9	138.8
62.5°	3.1	4.4	10.7	56.5	116.2
65°	2.5	3.1	10.7	40.2	93.0
67.5°	2.5	2.5	10.7	26.4	69.7
70°	1.9	1.9	10.0	17.0	47.7
72.5°	1.9	1.9	8.8	11.3	27.6
75°	1.9	3.1	7.5	8.2	11.3
77.5°	1.9	5.0	6.9	6.9	6.3
80°	1.9	5.0	6.3	5.7	5.7
82.5°	1.9	5.0	5.0	5.0	4.4
85°	1.9	4.4	5.0	4.4	3.8
87.5°	1.9	4.4	4.4	4.4	2.5
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1062083
 CATALOG NUMBER: S125RDR-H610D830-X4F0-XX-UDD-BVL-S

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	0.00	0.00	0.00	0.00	0.00	13.41	14.70	13.78	15.01	15.32
	3H	0.00	0.00	0.00	0.00	0.00	14.20	15.33	14.58	15.66	16.03
	4H	0.00	0.00	0.00	0.00	0.00	14.22	15.28	14.63	15.63	16.02
	6H	0.00	0.00	0.00	0.00	0.00	14.18	15.15	14.60	15.52	15.92
	8H	0.00	0.00	0.00	0.00	0.00	14.16	15.08	14.59	15.47	15.87
	12H	0.00	0.00	0.00	0.00	0.22	14.14	15.02	14.57	15.40	15.83
4H	2H	0.00	0.00	0.00	0.00	0.00	13.19	14.25	13.60	14.60	14.99
	3H	0.00	0.00	0.00	0.00	0.00	14.02	14.88	14.43	15.29	15.69
	4H	0.00	0.00	0.00	0.00	0.28	14.06	14.83	14.49	15.25	15.69
	6H	0.15	0.81	0.61	1.26	1.72	14.04	14.71	14.51	15.15	15.62
	8H	0.89	1.51	1.36	1.96	2.43	14.03	14.65	14.50	15.10	15.57
	12H	1.64	2.18	2.13	2.67	3.14	14.03	14.58	14.52	15.06	15.53
8H	4H	0.69	1.31	1.16	1.76	2.23	13.94	14.56	14.41	15.01	15.48
	6H	2.43	2.94	2.94	3.44	3.92	13.94	14.45	14.45	14.95	15.43
	8H	3.38	3.84	3.91	4.35	4.85	13.95	14.40	14.47	14.92	15.41
	12H	4.32	4.73	4.84	5.22	5.79	14.00	14.40	14.51	14.89	15.46
12H	4H	1.00	1.54	1.48	2.03	2.50	13.90	14.45	14.39	14.93	15.40
	6H	2.89	3.35	3.42	3.86	4.36	13.90	14.35	14.42	14.87	15.36
	8H	4.02	4.42	4.54	4.92	5.49	13.94	14.34	14.45	14.83	15.41