

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: P1062170

Luminaire Tested: S125RDR-H850D830-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062170
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-85)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDR-H850D830-X4F0-XX-UDD-WVL-S
Description: DEFINE 5 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

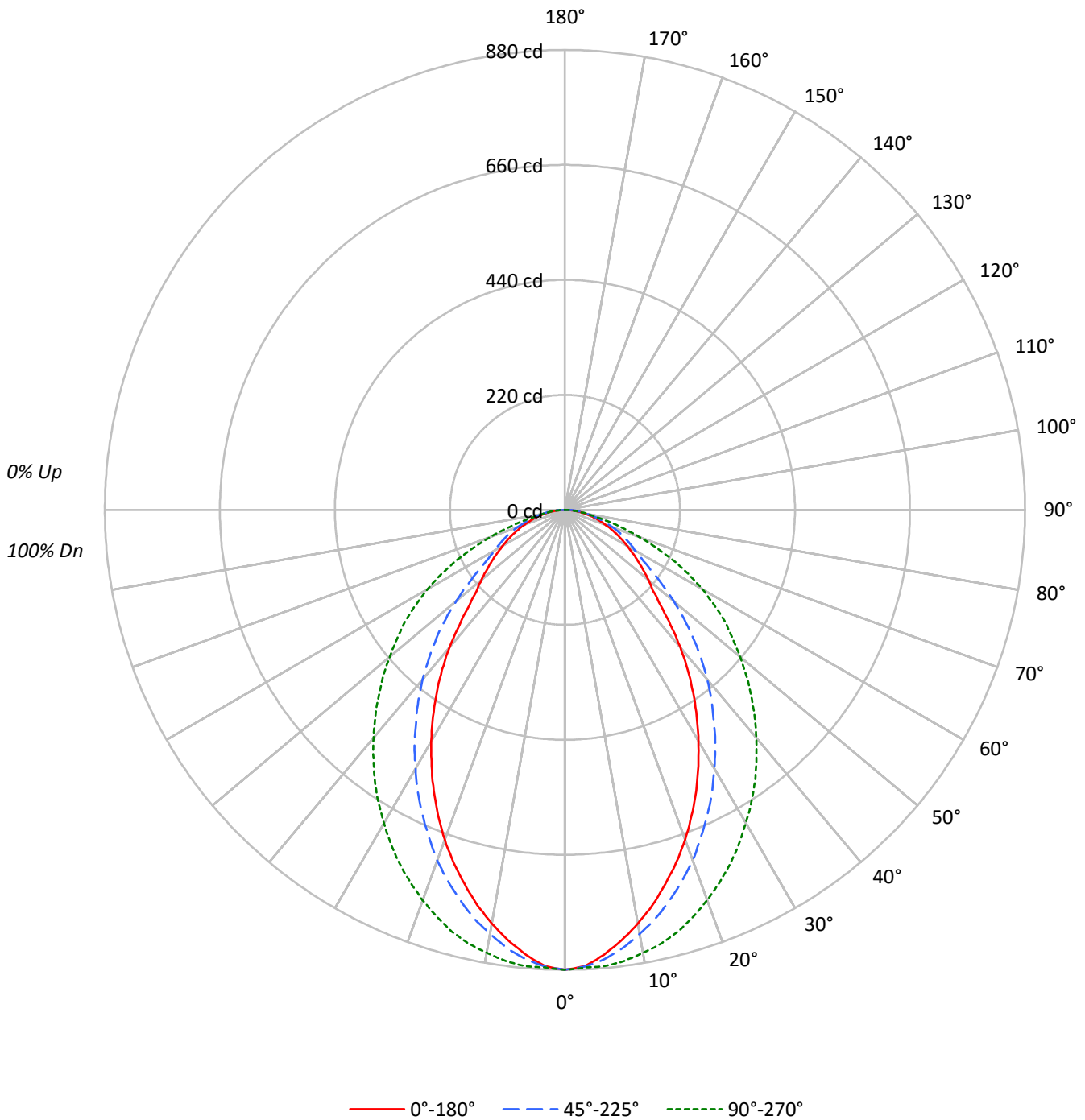
Lumens per Lamp: N/A
Luminaire Lumens: 1650.0 lumens
Efficiency: N/A
Efficacy: 70.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.18 / 1.12
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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: P1062170

CATALOG NUMBER: S125RDR-H850D830-X4F0-XX-UDD-WVL-S

Luminous Intensity Polar Plot





TEST NUMBER: P1062170

CATALOG NUMBER: S125RDR-H850D830-X4F0-XX-UDD-WVL-S

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	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	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86																												
2	101	94	88	83	99	92	86	82	89	84	80	85	81	78	82	79	76	74																												
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64																												
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56																												
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																												
6	74	62	54	48	72	61	53	48	59	52	47	58	52	47	56	51	46	44																												
7	69	57	49	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40																												
8	65	52	44	39	63	52	44	39	50	43	38	49	43	38	48	42	38	36																												
9	61	48	41	35	59	48	40	35	47	40	35	46	39	35	45	39	35	33																												
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	30																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6060	6060	6060
5°	5907	5967	6059
10°	5618	5760	6018
15°	5283	5516	5954
20°	4922	5232	5824
25°	4509	4896	5678
30°	4062	4544	5502
35°	3592	4176	5328
40°	3082	3801	5121
45°	2517	3382	4906
50°	2232	2901	4681
55°	2048	2407	4486
60°	1889	2132	4177
65°	1761	2048	3724
70°	1647	1947	3044
75°	1522	1825	2245
80°	1427	1709	1638
85°	1319	1667	1390

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4906 cd/sqm



TEST NUMBER: P1062170

CATALOG NUMBER: S125RDR-H850D830-X4F0-XX-UDD-WVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.4	4.9
10°-20°	219.4	13.3
20°-30°	301.5	18.3
30°-40°	319.6	19.4
40°-50°	278.9	16.9
50°-60°	211.9	12.8
60°-70°	142.0	8.6
70°-80°	73.2	4.4
80°-90°	22.0	1.3
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°	602.4	36.5
0°-40°	921.9	55.9
0°-60°	1412.8	85.6
0°-90°	1650.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1650.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	880	880	880	880	880	
5°	855	863	863	870	877	80
15°	741	755	774	808	835	208
25°	594	612	644	698	747	272
35°	427	452	497	567	634	266
45°	258	284	347	430	504	204
55°	171	176	200	295	374	153
65°	108	111	126	168	229	107
75°	57	61	69	73	84	61
85°	17	21	21	19	18	19
90°	0	0	0	0	0	



TEST NUMBER: P1062170

CATALOG NUMBER: S125RDR-H850D830-X4F0-XX-UDD-WVL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	880.1	880.1	880.1	880.1	880.1
2.5°	874.0	880.1	874.9	874.9	876.6
5°	854.6	863.4	863.4	869.6	876.6
7.5°	830.9	840.6	845.9	859.9	870.5
10°	803.6	814.2	823.9	845.0	860.8
12.5°	774.6	786.1	801.0	828.3	850.2
15°	741.2	755.3	773.8	808.0	835.3
17.5°	707.8	721.9	744.7	785.2	816.0
20°	671.8	686.7	714.0	757.9	794.9
22.5°	633.1	649.8	678.8	728.9	772.0
25°	593.5	612.0	644.5	698.1	747.4
27.5°	552.2	574.2	609.3	666.5	721.0
30°	510.9	532.8	571.5	633.9	692.0
32.5°	469.5	493.3	535.5	601.4	663.8
35°	427.3	451.9	496.8	567.1	633.9
37.5°	386.0	410.6	460.7	533.7	601.4
40°	342.9	368.4	422.9	499.4	569.8
42.5°	298.9	326.2	385.1	464.3	537.2
45°	258.5	284.0	347.3	430.0	503.8
47.5°	228.6	245.3	309.5	394.8	471.3
50°	208.4	217.2	270.8	360.5	437.0
52.5°	188.2	195.2	234.8	325.3	404.5
55°	170.6	175.9	200.5	294.6	373.7
57.5°	153.0	158.3	174.1	263.8	337.6
60°	137.2	141.6	154.8	231.2	303.3
62.5°	122.2	125.7	139.8	200.5	266.4
65°	108.1	110.8	125.7	167.9	228.6
67.5°	94.1	96.7	111.7	137.2	188.2
70°	81.8	82.7	96.7	111.7	151.2
72.5°	69.5	70.3	81.8	90.6	116.1
75°	57.2	60.7	68.6	73.0	84.4
77.5°	46.6	51.0	55.4	57.2	57.2
80°	36.0	41.3	43.1	43.1	41.3
82.5°	26.4	30.8	31.7	29.9	28.1
85°	16.7	21.1	21.1	19.3	17.6
87.5°	7.9	11.4	11.4	10.6	7.9
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1062170
 CATALOG NUMBER: S125RDR-H850D830-X4F0-XX-UDD-WVL-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	12.87	14.36	13.23	14.68	14.99	16.79	18.29	17.16	18.60	18.92
	3H	14.44	15.78	14.82	16.11	16.47	18.22	19.56	18.59	19.89	20.25
	4H	15.05	16.31	15.45	16.66	17.04	18.63	19.89	19.03	20.24	20.62
	6H	15.55	16.71	15.96	17.08	17.47	18.85	20.01	19.26	20.38	20.77
	8H	15.72	16.83	16.15	17.22	17.62	18.91	20.01	19.33	20.40	20.80
	12H	15.84	16.90	16.27	17.29	17.71	18.94	20.00	19.37	20.38	20.81
4H	2H	13.60	14.86	14.00	15.21	15.59	16.92	18.18	17.32	18.53	18.91
	3H	15.38	16.43	15.79	16.83	17.23	18.53	19.58	18.94	19.98	20.38
	4H	16.12	17.06	16.55	17.48	17.92	19.06	20.00	19.49	20.41	20.85
	6H	16.75	17.57	17.21	18.02	18.48	19.40	20.22	19.86	20.66	21.12
	8H	16.98	17.75	17.45	18.19	18.66	19.50	20.26	19.96	20.71	21.18
	12H	17.16	17.84	17.64	18.32	18.79	19.57	20.26	20.05	20.73	21.21
8H	4H	16.52	17.28	16.98	17.73	18.20	19.16	19.93	19.63	20.37	20.84
	6H	17.31	17.94	17.80	18.43	18.91	19.60	20.24	20.10	20.73	21.20
	8H	17.63	18.20	18.14	18.71	19.20	19.76	20.33	20.28	20.84	21.33
	12H	17.90	18.41	18.41	18.90	19.46	19.90	20.40	20.41	20.89	21.46
12H	4H	16.56	17.25	17.05	17.73	18.20	19.16	19.85	19.65	20.33	20.80
	6H	17.39	17.96	17.90	18.47	18.96	19.62	20.19	20.13	20.70	21.19
	8H	17.78	18.29	18.29	18.78	19.34	19.83	20.33	20.34	20.82	21.39