

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: P1062197

Luminaire Tested: S125RDR-H850D850-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062197
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-H850D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

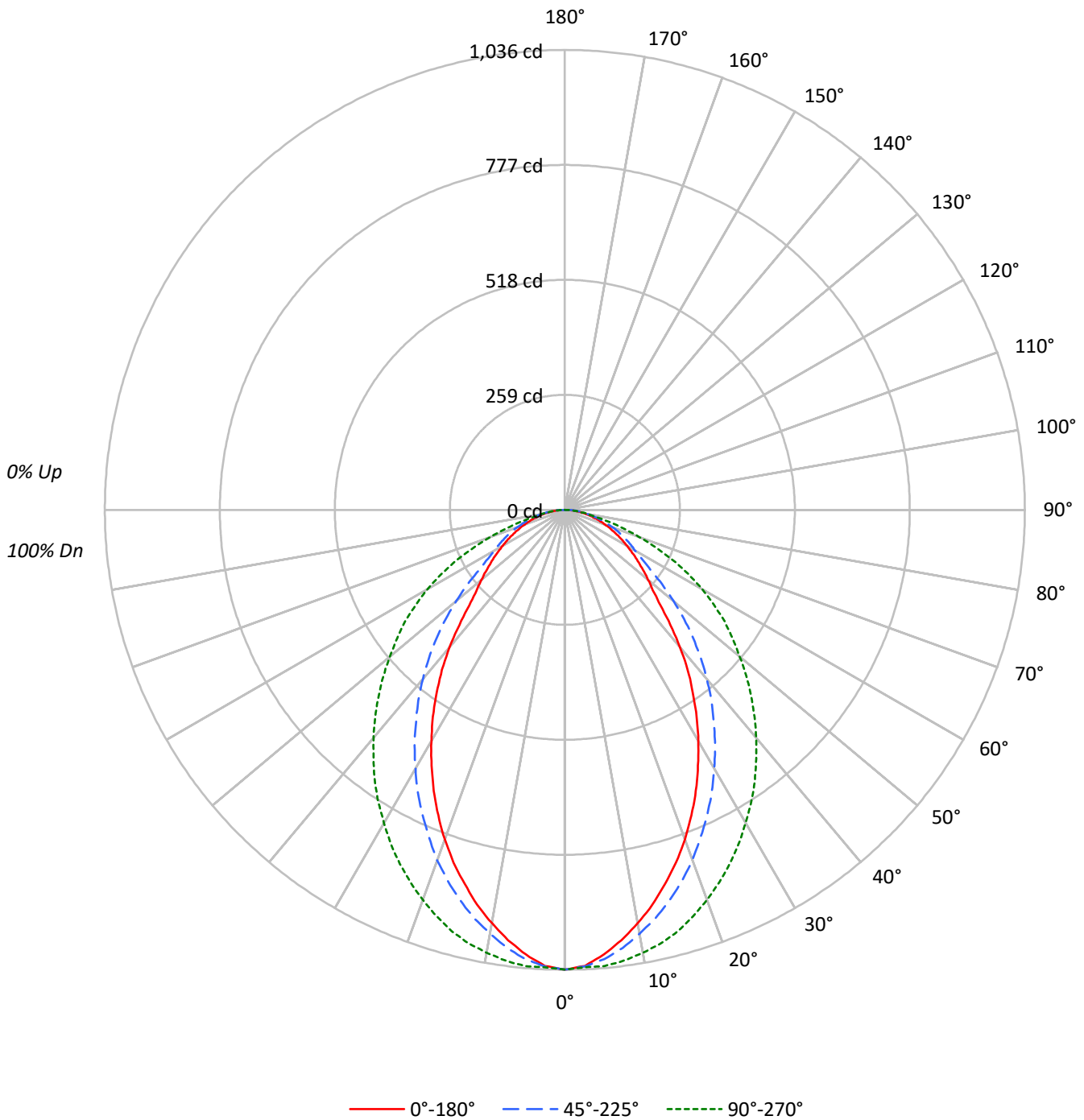
Lumens per Lamp: N/A
Luminaire Lumens: 1941.3 lumens
Efficiency: N/A
Efficacy: 82.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.18 / 1.12
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

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: P1062197

CATALOG NUMBER: S125RDR-H850D850-X4F0-XX-UDD-WVL-S

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	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	
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86			86	
2	101	94	88	83	99	92	86	82	89	84	80	85	81	78	82	79	76	74			74	
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64			64	
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56			56	
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50			50	
6	74	62	54	48	72	61	53	48	59	52	47	58	52	47	56	51	46	44			44	
7	69	57	49	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40			40	
8	65	52	44	39	63	52	44	39	50	43	38	49	43	38	48	42	38	36			36	
9	61	48	41	35	59	48	40	35	47	40	35	46	39	35	45	39	35	33			33	
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	30			30	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7130	7130	7130
5°	6950	7021	7129
10°	6611	6778	7081
15°	6216	6489	7006
20°	5791	6156	6852
25°	5305	5761	6681
30°	4779	5347	6473
35°	4226	4913	6270
40°	3627	4472	6026
45°	2962	3979	5772
50°	2626	3413	5508
55°	2409	2832	5278
60°	2223	2508	4915
65°	2072	2410	4383
70°	1937	2291	3581
75°	1788	2147	2642
80°	1681	2010	1927
85°	1556	1959	1635

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5772 cd/sqm



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CATALOG NUMBER: S125RDR-H850D850-X4F0-XX-UDD-WVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.8	4.9
10°-20°	258.1	13.3
20°-30°	354.8	18.3
30°-40°	376.0	19.4
40°-50°	328.2	16.9
50°-60°	249.4	12.8
60°-70°	167.1	8.6
70°-80°	86.1	4.4
80°-90°	25.8	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°	708.8	36.5
0°-40°	1084.8	55.9
0°-60°	1662.3	85.6
0°-90°	1941.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1941.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1036	1036	1036	1036	1036	
5°	1006	1016	1016	1023	1031	94
15°	872	889	910	951	983	245
25°	698	720	758	821	879	320
35°	503	532	584	667	746	314
45°	304	334	409	506	593	240
55°	201	207	236	347	440	180
65°	127	130	148	198	269	126
75°	67	71	81	86	99	72
85°	20	25	25	23	21	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1035.6	1035.6	1035.6	1035.6	1035.6
2.5°	1028.3	1035.6	1029.4	1029.4	1031.4
5°	1005.6	1015.9	1015.9	1023.2	1031.4
7.5°	977.6	989.0	995.2	1011.8	1024.2
10°	945.6	958.0	969.4	994.2	1012.8
12.5°	911.4	924.9	942.5	974.5	1000.4
15°	872.1	888.7	910.4	950.7	982.8
17.5°	832.8	849.4	876.3	923.8	960.1
20°	790.4	808.0	840.1	891.8	935.2
22.5°	744.9	764.5	798.7	857.6	908.3
25°	698.3	720.0	758.3	821.4	879.4
27.5°	649.7	675.6	716.9	784.2	848.3
30°	601.1	626.9	672.5	745.9	814.2
32.5°	552.4	580.4	630.0	707.6	781.1
35°	502.8	531.8	584.5	667.3	745.9
37.5°	454.2	483.1	542.1	628.0	707.6
40°	403.5	433.5	497.6	587.6	670.4
42.5°	351.7	383.8	453.1	546.2	632.1
45°	304.2	334.2	408.6	505.9	592.8
47.5°	269.0	288.6	364.2	464.5	554.5
50°	245.2	255.5	318.6	424.2	514.2
52.5°	221.4	229.7	276.2	382.8	475.9
55°	200.7	206.9	235.9	346.6	439.7
57.5°	180.0	186.2	204.8	310.4	397.3
60°	161.4	166.6	182.1	272.1	356.9
62.5°	143.8	147.9	164.5	235.9	313.5
65°	127.2	130.4	147.9	197.6	269.0
67.5°	110.7	113.8	131.4	161.4	221.4
70°	96.2	97.2	113.8	131.4	177.9
72.5°	81.7	82.8	96.2	106.6	136.6
75°	67.2	71.4	80.7	85.9	99.3
77.5°	54.8	60.0	65.2	67.2	67.2
80°	42.4	48.6	50.7	50.7	48.6
82.5°	31.0	36.2	37.2	35.2	33.1
85°	19.7	24.8	24.8	22.8	20.7
87.5°	9.3	13.4	13.4	12.4	9.3
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	13.43	14.93	13.80	15.24	15.56	17.36	18.86	17.73	19.17	19.48
	3H	15.00	16.34	15.38	16.67	17.04	18.78	20.12	19.16	20.45	20.81
	4H	15.62	16.87	16.02	17.22	17.60	19.20	20.46	19.60	20.80	21.18
	6H	16.11	17.27	16.52	17.64	18.03	19.41	20.58	19.83	20.94	21.33
	8H	16.28	17.39	16.71	17.78	18.18	19.47	20.58	19.90	20.97	21.37
	12H	16.41	17.47	16.84	17.85	18.28	19.51	20.57	19.94	20.95	21.38
4H	2H	14.17	15.43	14.57	15.78	16.15	17.49	18.74	17.89	19.09	19.47
	3H	15.95	16.99	16.36	17.39	17.79	19.10	20.14	19.51	20.54	20.94
	4H	16.68	17.62	17.12	18.04	18.48	19.62	20.56	20.06	20.98	21.42
	6H	17.32	18.14	17.78	18.58	19.04	19.96	20.78	20.42	21.23	21.69
	8H	17.55	18.31	18.01	18.76	19.22	20.06	20.83	20.53	21.27	21.74
	12H	17.72	18.40	18.20	18.88	19.35	20.14	20.82	20.62	21.30	21.77
8H	4H	17.08	17.85	17.55	18.29	18.76	19.73	20.49	20.19	20.94	21.41
	6H	17.87	18.50	18.37	18.99	19.47	20.17	20.80	20.67	21.29	21.77
	8H	18.19	18.76	18.71	19.27	19.76	20.33	20.89	20.84	21.40	21.89
	12H	18.47	18.97	18.98	19.46	20.03	20.46	20.96	20.97	21.46	22.02
12H	4H	17.13	17.81	17.61	18.29	18.76	19.73	20.41	20.21	20.89	21.36
	6H	17.95	18.52	18.47	19.03	19.52	20.18	20.75	20.70	21.26	21.75
	8H	18.35	18.85	18.86	19.34	19.91	20.39	20.89	20.90	21.39	21.95