

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: P1062164

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062164
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-H850D830-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

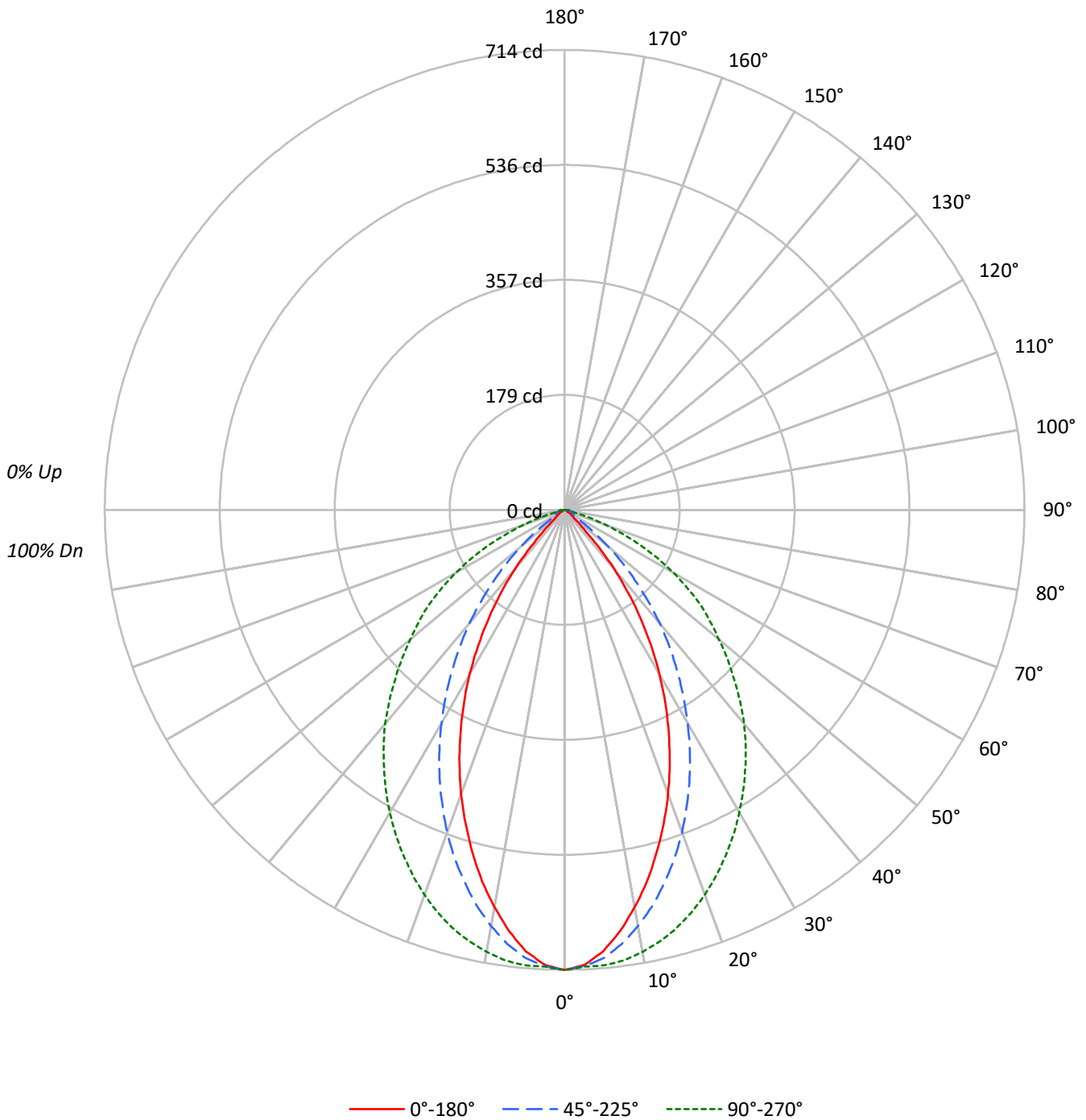
Lumens per Lamp: N/A
Luminaire Lumens: 918.7 lumens
Efficiency: N/A
Efficacy: 39.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.14 / 0.98
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									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	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°	4917	4917	4917
5°	4754	4827	4906
10°	4379	4588	4871
15°	3931	4270	4790
20°	3442	3905	4660
25°	2907	3489	4497
30°	2343	3035	4315
35°	1723	2558	4111
40°	1075	2064	3898
45°	402	1507	3623
50°	189	943	3345
55°	137	390	3093
60°	96	207	2677
65°	57	244	2121
70°	52	284	1347
75°	69	282	420
80°	103	349	313
85°	205	553	419

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3623 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.5	7.1
10°-20°	169.6	18.5
20°-30°	216.0	23.5
30°-40°	201.0	21.9
40°-50°	137.7	15.0
50°-60°	75.9	8.3
60°-70°	35.9	3.9
70°-80°	11.3	1.2
80°-90°	5.8	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°	451.1	49.1
0°-40°	652.1	71.0
0°-60°	865.7	94.2
0°-90°	918.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	918.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	714	714	714	714	714	
5°	688	697	698	704	710	64
15°	552	569	599	644	672	154
25°	383	406	459	533	592	175
35°	205	234	304	405	489	127
45°	41	70	155	274	372	39
55°	11	13	32	153	258	10
65°	4	4	15	56	130	4
75°	3	4	11	11	16	3
85°	3	6	7	6	5	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	714.2	714.2	714.2	714.2	714.2
2.5°	707.2	714.2	709.0	709.0	709.8
5°	687.9	696.7	698.4	703.7	709.8
7.5°	659.7	671.1	679.9	694.9	705.5
10°	626.3	640.4	656.2	680.8	696.7
12.5°	591.1	606.1	629.8	664.1	686.1
15°	551.5	569.1	599.0	643.9	672.0
17.5°	511.1	530.4	567.4	620.1	655.3
20°	469.7	489.9	533.0	592.0	636.0
22.5°	426.6	448.6	496.1	563.0	614.9
25°	382.6	406.4	459.2	533.0	592.0
27.5°	338.7	363.3	421.3	502.3	568.2
30°	294.7	320.2	381.8	470.6	542.7
32.5°	249.8	278.0	343.1	438.9	516.3
35°	205.0	234.0	304.3	404.6	489.1
37.5°	161.0	190.9	266.5	372.1	461.8
40°	119.6	149.5	229.6	339.5	433.7
42.5°	77.4	109.1	190.9	306.1	402.9
45°	41.3	69.5	154.8	274.4	372.1
47.5°	22.0	36.9	120.5	242.8	343.1
50°	17.6	20.2	88.0	211.1	312.3
52.5°	14.1	15.8	56.3	178.6	285.0
55°	11.4	13.2	32.5	153.1	257.7
57.5°	8.8	10.6	18.5	127.5	226.1
60°	7.0	7.9	15.0	102.0	194.4
62.5°	4.4	6.2	15.0	79.2	162.7
65°	3.5	4.4	15.0	56.3	130.2
67.5°	3.5	3.5	15.0	36.9	97.6
70°	2.6	2.6	14.1	23.7	66.9
72.5°	2.6	2.6	12.3	15.8	38.7
75°	2.6	4.4	10.6	11.4	15.8
77.5°	2.6	7.0	9.7	9.7	8.8
80°	2.6	7.0	8.8	7.9	7.9
82.5°	2.6	7.0	7.0	7.0	6.2
85°	2.6	6.2	7.0	6.2	5.3
87.5°	2.6	6.2	6.2	6.2	3.5
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	0.00	0.00	0.00	0.00	0.00	14.58	15.86	14.94	16.18	16.49
	3H	0.00	0.00	0.00	0.00	0.00	15.36	16.50	15.74	16.83	17.20
	4H	0.00	0.00	0.00	0.00	0.00	15.39	16.45	15.79	16.80	17.18
	6H	0.00	0.00	0.00	0.00	0.00	15.35	16.32	15.76	16.69	17.08
	8H	0.00	0.00	0.00	0.22	0.63	15.32	16.24	15.75	16.63	17.04
	12H	0.00	0.53	0.09	0.91	1.34	15.31	16.18	15.74	16.57	17.00
4H	2H	0.00	0.00	0.00	0.00	0.18	14.36	15.42	14.76	15.77	16.15
	3H	0.00	0.10	0.00	0.51	0.91	15.19	16.05	15.60	16.46	16.86
	4H	0.00	0.60	0.27	1.02	1.47	15.22	15.99	15.66	16.41	16.86
	6H	1.31	1.97	1.77	2.42	2.89	15.21	15.87	15.67	16.32	16.79
	8H	2.04	2.66	2.51	3.11	3.58	15.19	15.81	15.66	16.26	16.73
	12H	2.78	3.33	3.27	3.81	4.28	15.20	15.74	15.68	16.23	16.70
8H	4H	1.87	2.49	2.34	2.94	3.41	15.11	15.73	15.58	16.18	16.65
	6H	3.60	4.11	4.11	4.61	5.09	15.11	15.62	15.61	16.11	16.59
	8H	4.55	5.00	5.07	5.52	6.01	15.12	15.57	15.64	16.09	16.58
	12H	5.48	5.88	6.00	6.38	6.95	15.16	15.56	15.68	16.06	16.63
12H	4H	2.18	2.72	2.66	3.21	3.68	15.07	15.61	15.55	16.10	16.57
	6H	4.06	4.51	4.58	5.03	5.52	15.06	15.52	15.59	16.03	16.53
	8H	5.19	5.59	5.70	6.08	6.65	15.10	15.50	15.62	16.00	16.57