

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: P1062172

Luminaire Tested: S125RDR-H850D835-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062172
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-H850D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

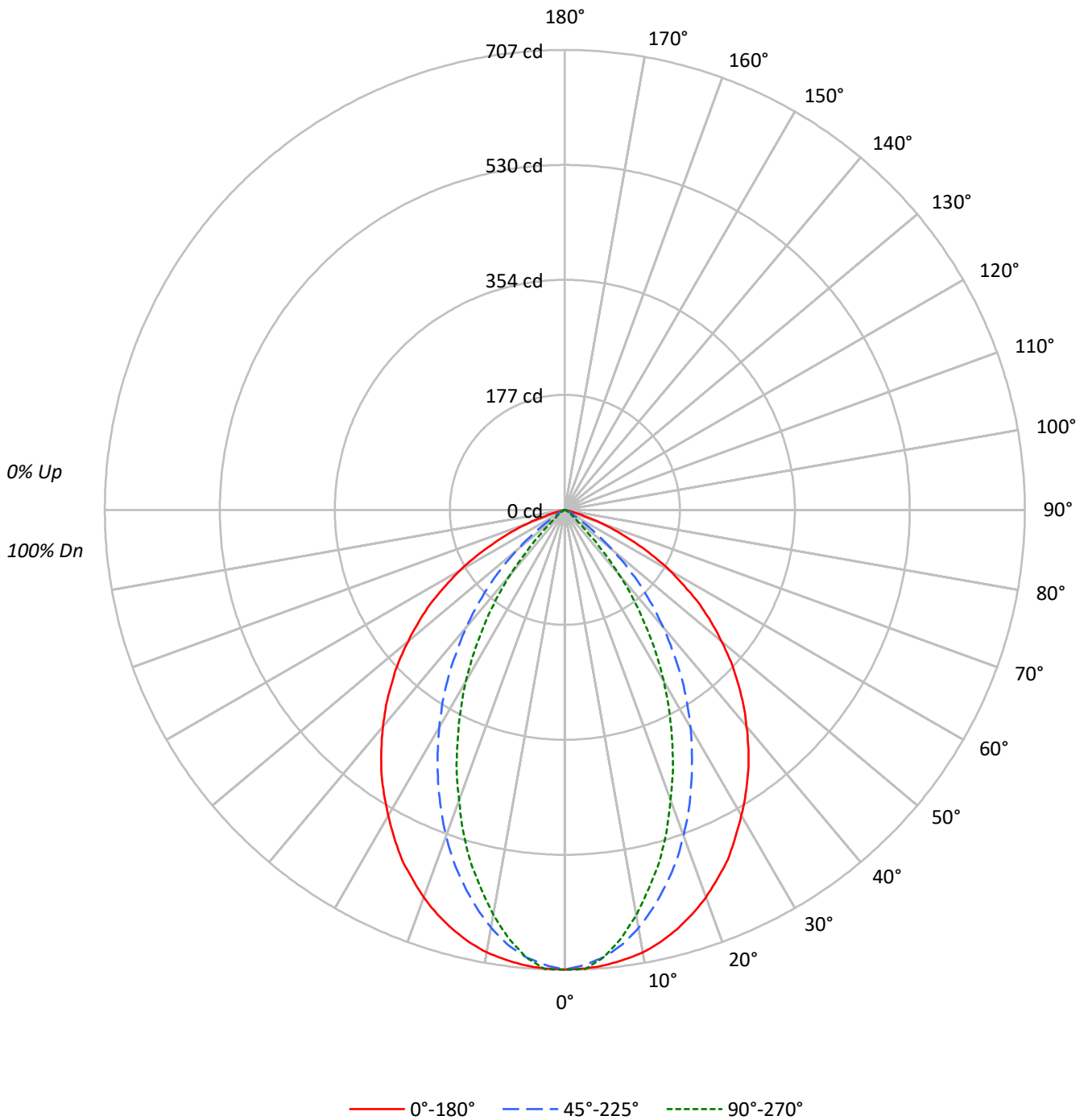
Lumens per Lamp: N/A
Luminaire Lumens: 913.0 lumens
Efficiency: N/A
Efficacy: 38.9 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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																										
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	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°	4866	4866	4866
5°	4859	4769	4769
10°	4830	4563	4420
15°	4759	4260	3995
20°	4645	3908	3477
25°	4505	3499	2961
30°	4314	3069	2417
35°	4130	2617	1811
40°	3905	2112	1173
45°	3659	1598	508
50°	3366	1019	190
55°	3033	448	134
60°	2568	193	90
65°	1944	122	46
70°	1182	56	18
75°	247	24	24
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3659 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.1	7.1
10°-20°	169.8	18.6
20°-30°	218.1	23.9
30°-40°	205.3	22.5
40°-50°	143.5	15.7
50°-60°	76.7	8.4
60°-70°	30.6	3.4
70°-80°	3.9	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°	453.0	49.6
0°-40°	658.3	72.1
0°-60°	878.5	96.2
0°-90°	913.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	913.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	707	707	707	707	707	
5°	703	701	690	692	690	67
15°	668	646	598	570	560	188
25°	593	541	461	410	390	272
35°	491	413	311	241	215	307
45°	376	282	164	79	52	290
55°	253	155	37	13	11	224
65°	119	48	8	4	3	119
75°	9	3	1	1	1	18
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	706.7	706.7	706.7	706.7	706.7
2.5°	705.8	706.7	700.2	705.8	706.7
5°	703.0	701.2	690.0	691.8	690.0
7.5°	697.4	692.8	674.1	667.6	663.9
10°	690.9	680.6	652.7	638.7	632.2
12.5°	680.6	665.7	626.6	605.1	595.8
15°	667.6	646.1	597.7	569.7	560.4
17.5°	651.7	623.8	567.8	533.3	519.3
20°	634.0	596.7	533.3	492.3	474.6
22.5°	613.5	570.6	497.9	452.2	434.5
25°	593.0	540.8	460.6	410.3	389.7
27.5°	567.8	510.0	423.3	369.2	346.8
30°	542.6	479.2	386.0	327.3	304.0
32.5°	517.5	446.6	348.7	283.4	260.1
35°	491.4	413.0	311.4	240.6	215.4
37.5°	463.4	379.5	271.3	199.5	173.4
40°	434.5	346.8	235.0	159.4	130.5
42.5°	406.5	314.2	198.6	120.3	88.6
45°	375.8	281.6	164.1	79.3	52.2
47.5°	346.8	249.9	128.7	45.7	27.0
50°	314.2	217.2	95.1	24.2	17.7
52.5°	283.4	185.5	63.4	15.9	14.0
55°	252.7	154.8	37.3	13.1	11.2
57.5°	217.2	124.9	20.5	10.3	8.4
60°	186.5	97.9	14.0	7.5	6.5
62.5°	151.0	71.8	10.3	5.6	4.7
65°	119.3	47.6	7.5	3.7	2.8
67.5°	88.6	28.0	4.7	1.9	1.9
70°	58.7	14.9	2.8	0.9	0.9
72.5°	30.8	6.5	1.9	0.9	0.9
75°	9.3	2.8	0.9	0.9	0.9
77.5°	0.0	0.9	0.0	0.0	0.9
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



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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	14.44	15.70	14.80	16.02	16.33	0.00	0.00	0.00	0.00	0.00
	3H	15.02	16.14	15.40	16.47	16.83	0.00	0.00	0.00	0.00	0.00
	4H	14.99	16.02	15.39	16.37	16.76	0.00	0.00	0.00	0.00	0.00
	6H	14.90	15.85	15.32	16.22	16.61	0.00	0.00	0.00	0.00	0.00
	8H	14.86	15.75	15.29	16.14	16.55	0.00	0.00	0.00	0.00	0.00
	12H	14.81	15.66	15.24	16.05	16.48	0.00	0.00	0.00	0.00	0.00
4H	2H	14.21	15.24	14.62	15.60	15.98	0.00	0.00	0.00	0.00	0.00
	3H	14.80	15.64	15.22	16.05	16.45	0.00	0.00	0.00	0.00	0.00
	4H	14.75	15.50	15.19	15.92	16.36	0.00	0.00	0.00	0.00	0.00
	6H	14.67	15.30	15.13	15.75	16.22	0.00	0.00	0.00	0.00	0.00
	8H	14.61	15.20	15.08	15.65	16.12	0.00	0.00	0.00	0.00	0.00
	12H	14.56	15.08	15.04	15.56	16.04	0.00	0.00	0.00	0.00	0.00
8H	4H	14.61	15.20	15.08	15.65	16.12	0.00	0.00	0.00	0.00	0.00
	6H	14.50	14.98	15.00	15.48	15.96	0.00	0.00	0.00	0.00	0.00
	8H	14.43	14.87	14.96	15.38	15.88	0.00	0.00	0.00	0.00	0.00
	12H	14.39	14.77	14.90	15.26	15.84	0.00	0.00	0.00	0.00	0.00
12H	4H	14.56	15.08	15.04	15.56	16.04	0.00	0.00	0.00	0.00	0.00
	6H	14.43	14.87	14.96	15.38	15.88	0.00	0.00	0.00	0.00	0.00
	8H	14.39	14.77	14.90	15.26	15.84	0.00	0.00	0.00	0.00	0.00