

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: P1062101

Luminaire Tested: S125RDR-H610D840-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062101
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-H610D840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

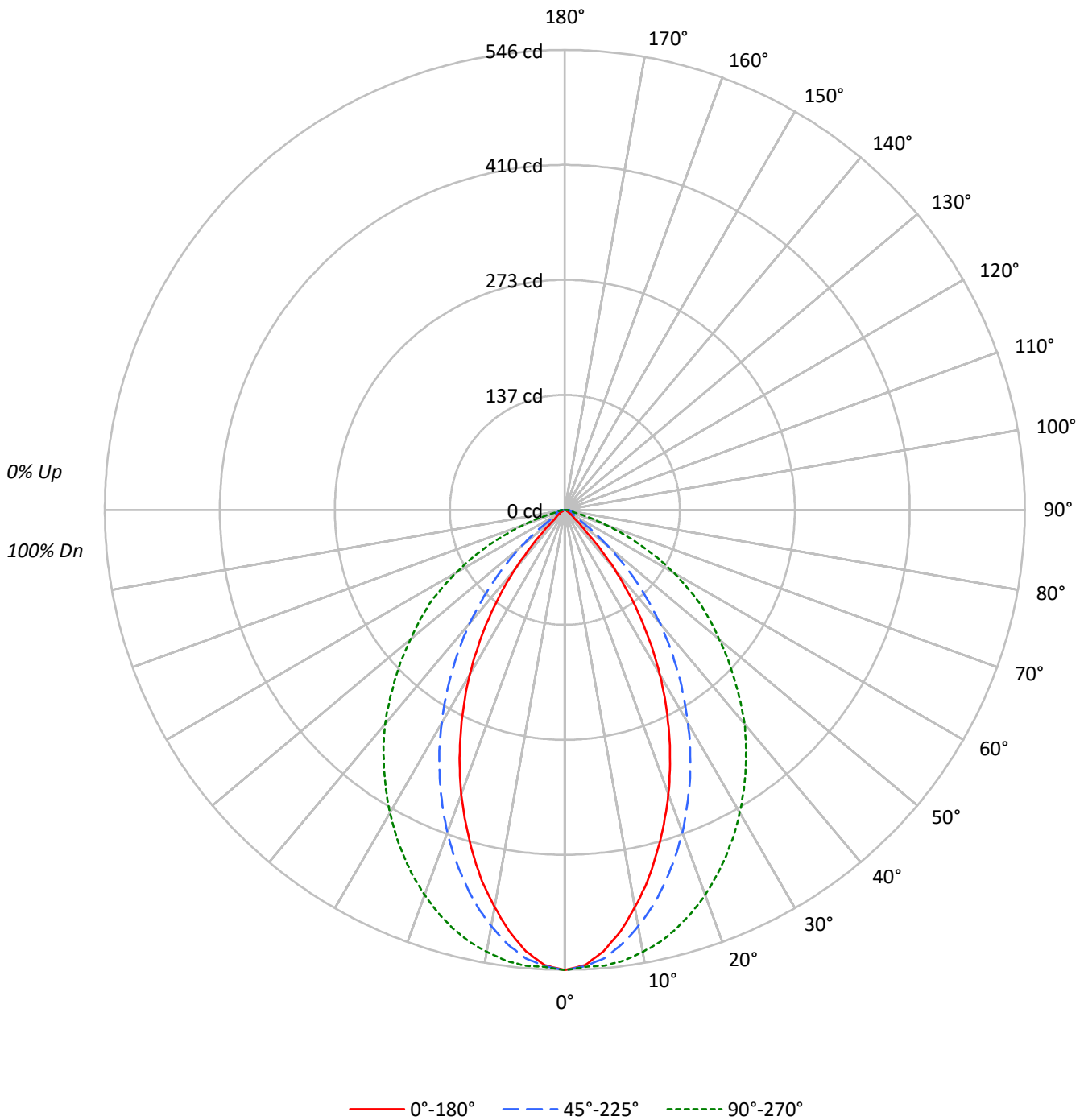
Lumens per Lamp: N/A
Luminaire Lumens: 702.8 lumens
Efficiency: N/A
Efficacy: 40.4 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.14 / 0.98
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

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

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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				
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°	3762	3762	3762
5°	3637	3693	3754
10°	3350	3510	3726
15°	3007	3267	3665
20°	2633	2988	3565
25°	2224	2669	3441
30°	1792	2322	3301
35°	1318	1957	3145
40°	822	1578	2982
45°	308	1153	2772
50°	145	721	2559
55°	104	299	2367
60°	74	157	2048
65°	44	186	1623
70°	40	217	1029
75°	53	215	322
80°	79	266	242
85°	158	427	316

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2772 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.1	7.1
10°-20°	129.7	18.5
20°-30°	165.2	23.5
30°-40°	153.8	21.9
40°-50°	105.4	15.0
50°-60°	58.0	8.3
60°-70°	27.5	3.9
70°-80°	8.6	1.2
80°-90°	4.4	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°	345.1	49.1
0°-40°	498.9	71.0
0°-60°	662.3	94.2
0°-90°	702.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	702.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	546	546	546	546	546	
5°	526	533	534	538	543	49
15°	422	435	458	493	514	118
25°	293	311	351	408	453	134
35°	157	179	233	310	374	97
45°	32	53	118	210	285	30
55°	9	10	25	117	197	8
65°	3	3	11	43	100	3
75°	2	3	8	9	12	2
85°	2	5	5	5	4	2
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	546.4	546.4	546.4	546.4	546.4
2.5°	541.0	546.4	542.4	542.4	543.1
5°	526.2	533.0	534.3	538.4	543.1
7.5°	504.7	513.5	520.2	531.6	539.7
10°	479.1	489.9	502.0	520.9	533.0
12.5°	452.2	463.7	481.8	508.1	524.9
15°	421.9	435.4	458.3	492.6	514.1
17.5°	391.0	405.8	434.0	474.4	501.3
20°	359.3	374.8	407.8	452.9	486.5
22.5°	326.4	343.2	379.5	430.7	470.4
25°	292.7	310.9	351.3	407.8	452.9
27.5°	259.1	277.9	322.3	384.2	434.7
30°	225.4	244.9	292.1	360.0	415.2
32.5°	191.1	212.6	262.4	335.8	395.0
35°	156.8	179.0	232.8	309.6	374.2
37.5°	123.1	146.0	203.9	284.7	353.3
40°	91.5	114.4	175.6	259.8	331.8
42.5°	59.2	83.4	146.0	234.2	308.2
45°	31.6	53.2	118.4	210.0	284.7
47.5°	16.8	28.3	92.2	185.7	262.4
50°	13.5	15.5	67.3	161.5	238.9
52.5°	10.8	12.1	43.1	136.6	218.0
55°	8.7	10.1	24.9	117.1	197.2
57.5°	6.7	8.1	14.1	97.6	172.9
60°	5.4	6.1	11.4	78.1	148.7
62.5°	3.4	4.7	11.4	60.6	124.5
65°	2.7	3.4	11.4	43.1	99.6
67.5°	2.7	2.7	11.4	28.3	74.7
70°	2.0	2.0	10.8	18.2	51.1
72.5°	2.0	2.0	9.4	12.1	29.6
75°	2.0	3.4	8.1	8.7	12.1
77.5°	2.0	5.4	7.4	7.4	6.7
80°	2.0	5.4	6.7	6.1	6.1
82.5°	2.0	5.4	5.4	5.4	4.7
85°	2.0	4.7	5.4	4.7	4.0
87.5°	2.0	4.7	4.7	4.7	2.7
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	13.65	14.94	14.01	15.25	15.56
	3H	0.00	0.00	0.00	0.00	0.00	14.44	15.57	14.82	15.90	16.27
	4H	0.00	0.00	0.00	0.00	0.00	14.46	15.52	14.87	15.87	16.26
	6H	0.00	0.00	0.00	0.00	0.00	14.42	15.39	14.83	15.76	16.16
	8H	0.00	0.00	0.00	0.00	0.00	14.40	15.31	14.83	15.71	16.11
	12H	0.00	0.00	0.00	0.01	0.44	14.38	15.25	14.81	15.64	16.07
4H	2H	0.00	0.00	0.00	0.00	0.00	13.43	14.49	13.84	14.84	15.23
	3H	0.00	0.00	0.00	0.00	0.00	14.26	15.12	14.67	15.53	15.93
	4H	0.00	0.00	0.00	0.09	0.53	14.29	15.07	14.73	15.49	15.93
	6H	0.40	1.06	0.86	1.51	1.98	14.28	14.95	14.75	15.39	15.86
	8H	1.14	1.76	1.61	2.20	2.67	14.27	14.89	14.74	15.33	15.80
	12H	1.87	2.42	2.36	2.90	3.38	14.27	14.81	14.75	15.30	15.77
8H	4H	0.94	1.56	1.41	2.01	2.48	14.18	14.80	14.65	15.25	15.72
	6H	2.69	3.19	3.19	3.69	4.17	14.18	14.69	14.69	15.19	15.67
	8H	3.64	4.09	4.16	4.61	5.10	14.19	14.64	14.71	15.16	15.65
	12H	4.57	4.97	5.08	5.47	6.04	14.23	14.63	14.75	15.13	15.70
12H	4H	1.24	1.79	1.73	2.27	2.75	14.14	14.68	14.63	15.17	15.64
	6H	3.15	3.60	3.67	4.12	4.61	14.14	14.59	14.66	15.11	15.60
	8H	4.28	4.68	4.80	5.18	5.75	14.18	14.58	14.69	15.07	15.65