

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: P1062109

Luminaire Tested: S125RDR-H610D850-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062109
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-H610D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

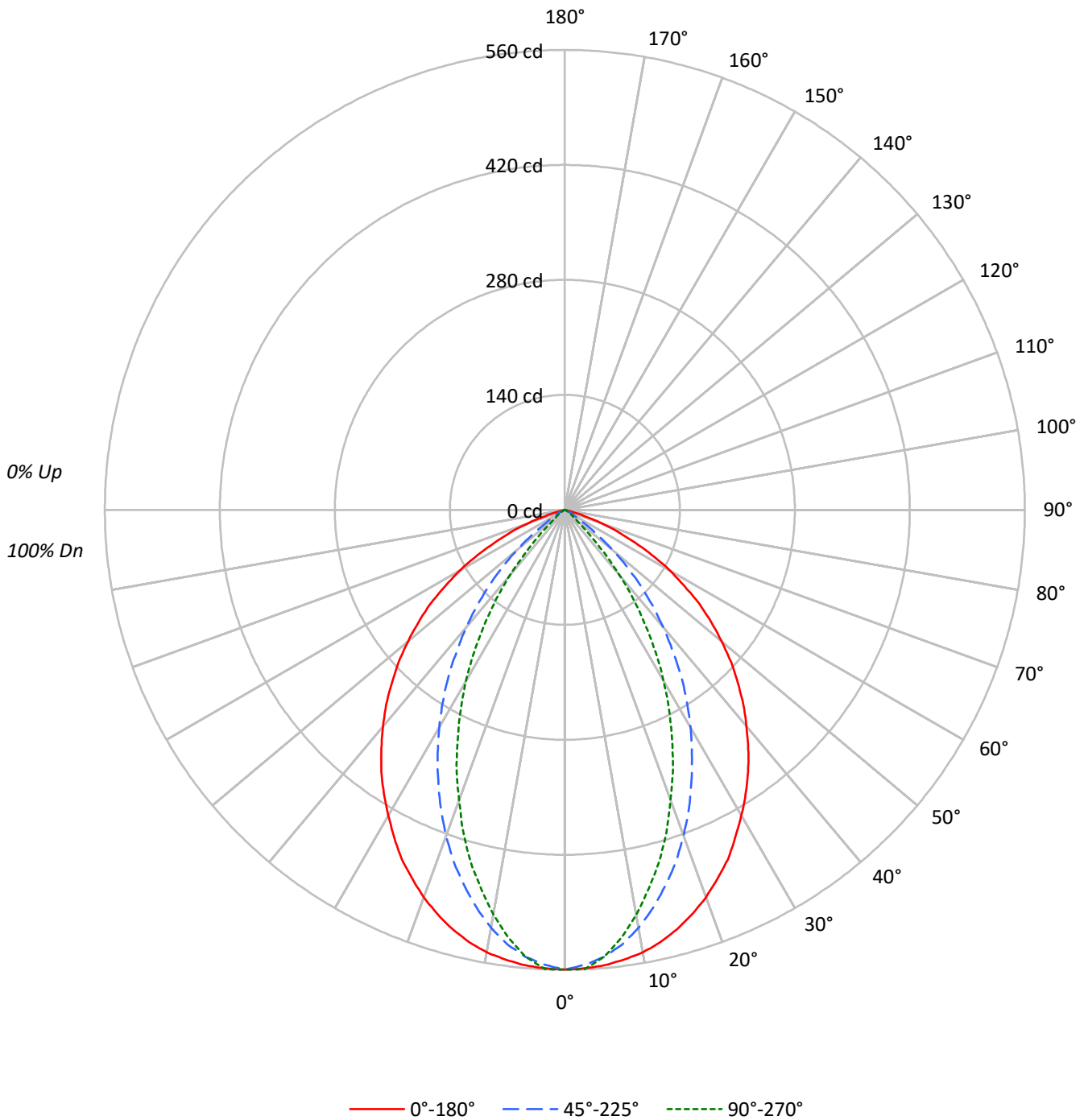
Lumens per Lamp: N/A
Luminaire Lumens: 723.0 lumens
Efficiency: N/A
Efficacy: 41.6 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	3854	3854	3854
5°	3848	3776	3776
10°	3825	3613	3500
15°	3768	3374	3163
20°	3679	3094	2754
25°	3568	2771	2344
30°	3416	2430	1914
35°	3271	2073	1434
40°	3093	1673	929
45°	2897	1265	402
50°	2665	807	150
55°	2402	354	107
60°	2034	153	72
65°	1540	96	36
70°	936	44	14
75°	197	19	19
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2897 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.6	7.1
10°-20°	134.5	18.6
20°-30°	172.7	23.9
30°-40°	162.6	22.5
40°-50°	113.6	15.7
50°-60°	60.7	8.4
60°-70°	24.2	3.3
70°-80°	3.1	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°	358.8	49.6
0°-40°	521.3	72.1
0°-60°	695.7	96.2
0°-90°	723.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	723.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	560	560	560	560	560	
5°	557	555	546	548	546	53
15°	529	512	473	451	444	149
25°	470	428	365	325	309	216
35°	389	327	247	190	171	243
45°	298	223	130	63	41	230
55°	200	123	30	10	9	177
65°	94	38	6	3	2	94
75°	7	2	1	1	1	14
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°	559.7	559.7	559.7	559.7	559.7
2.5°	558.9	559.7	554.5	558.9	559.7
5°	556.7	555.2	546.4	547.8	546.4
7.5°	552.3	548.6	533.8	528.6	525.7
10°	547.1	539.0	516.8	505.8	500.6
12.5°	539.0	527.2	496.2	479.2	471.8
15°	528.6	511.7	473.3	451.1	443.7
17.5°	516.1	493.9	449.6	422.3	411.2
20°	502.1	472.5	422.3	389.8	375.8
22.5°	485.8	451.9	394.3	358.1	344.1
25°	469.6	428.2	364.7	324.9	308.6
27.5°	449.6	403.9	335.2	292.4	274.7
30°	429.7	379.5	305.7	259.2	240.7
32.5°	409.8	353.7	276.1	224.5	206.0
35°	389.1	327.1	246.6	190.5	170.6
37.5°	366.9	300.5	214.9	158.0	137.3
40°	344.1	274.7	186.1	126.3	103.4
42.5°	321.9	248.8	157.3	95.2	70.1
45°	297.5	223.0	129.9	62.8	41.3
47.5°	274.7	197.9	101.9	36.2	21.4
50°	248.8	172.0	75.3	19.2	14.0
52.5°	224.5	146.9	50.2	12.6	11.1
55°	200.1	122.6	29.5	10.3	8.9
57.5°	172.0	98.9	16.2	8.1	6.6
60°	147.7	77.5	11.1	5.9	5.2
62.5°	119.6	56.9	8.1	4.4	3.7
65°	94.5	37.7	5.9	3.0	2.2
67.5°	70.1	22.1	3.7	1.5	1.5
70°	46.5	11.8	2.2	0.7	0.7
72.5°	24.4	5.2	1.5	0.7	0.7
75°	7.4	2.2	0.7	0.7	0.7
77.5°	0.0	0.7	0.0	0.0	0.7
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	13.63	14.89	13.99	15.20	15.52	0.00	0.00	0.00	0.00	0.00
	3H	14.21	15.32	14.59	15.65	16.02	0.00	0.00	0.00	0.00	0.00
	4H	14.18	15.21	14.58	15.56	15.94	0.00	0.00	0.00	0.00	0.00
	6H	14.09	15.04	14.51	15.41	15.80	0.00	0.00	0.00	0.00	0.00
	8H	14.04	14.94	14.48	15.33	15.73	0.00	0.00	0.00	0.00	0.00
	12H	14.00	14.85	14.43	15.23	15.66	0.00	0.00	0.00	0.00	0.00
4H	2H	13.40	14.43	13.81	14.79	15.17	0.00	0.00	0.00	0.00	0.00
	3H	13.99	14.83	14.41	15.23	15.64	0.00	0.00	0.00	0.00	0.00
	4H	13.94	14.68	14.38	15.11	15.55	0.00	0.00	0.00	0.00	0.00
	6H	13.86	14.49	14.32	14.94	15.41	0.00	0.00	0.00	0.00	0.00
	8H	13.80	14.39	14.27	14.84	15.31	0.00	0.00	0.00	0.00	0.00
	12H	13.74	14.27	14.23	14.75	15.23	0.00	0.00	0.00	0.00	0.00
8H	4H	13.80	14.39	14.27	14.84	15.31	0.00	0.00	0.00	0.00	0.00
	6H	13.69	14.17	14.19	14.67	15.15	0.00	0.00	0.00	0.00	0.00
	8H	13.62	14.05	14.15	14.57	15.06	0.00	0.00	0.00	0.00	0.00
	12H	13.57	13.95	14.09	14.45	15.02	0.00	0.00	0.00	0.00	0.00
12H	4H	13.74	14.27	14.23	14.75	15.23	0.00	0.00	0.00	0.00	0.00
	6H	13.62	14.05	14.15	14.57	15.06	0.00	0.00	0.00	0.00	0.00
	8H	13.57	13.95	14.09	14.45	15.02	0.00	0.00	0.00	0.00	0.00