

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: P1062102

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062102  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-84)  
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-W  
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

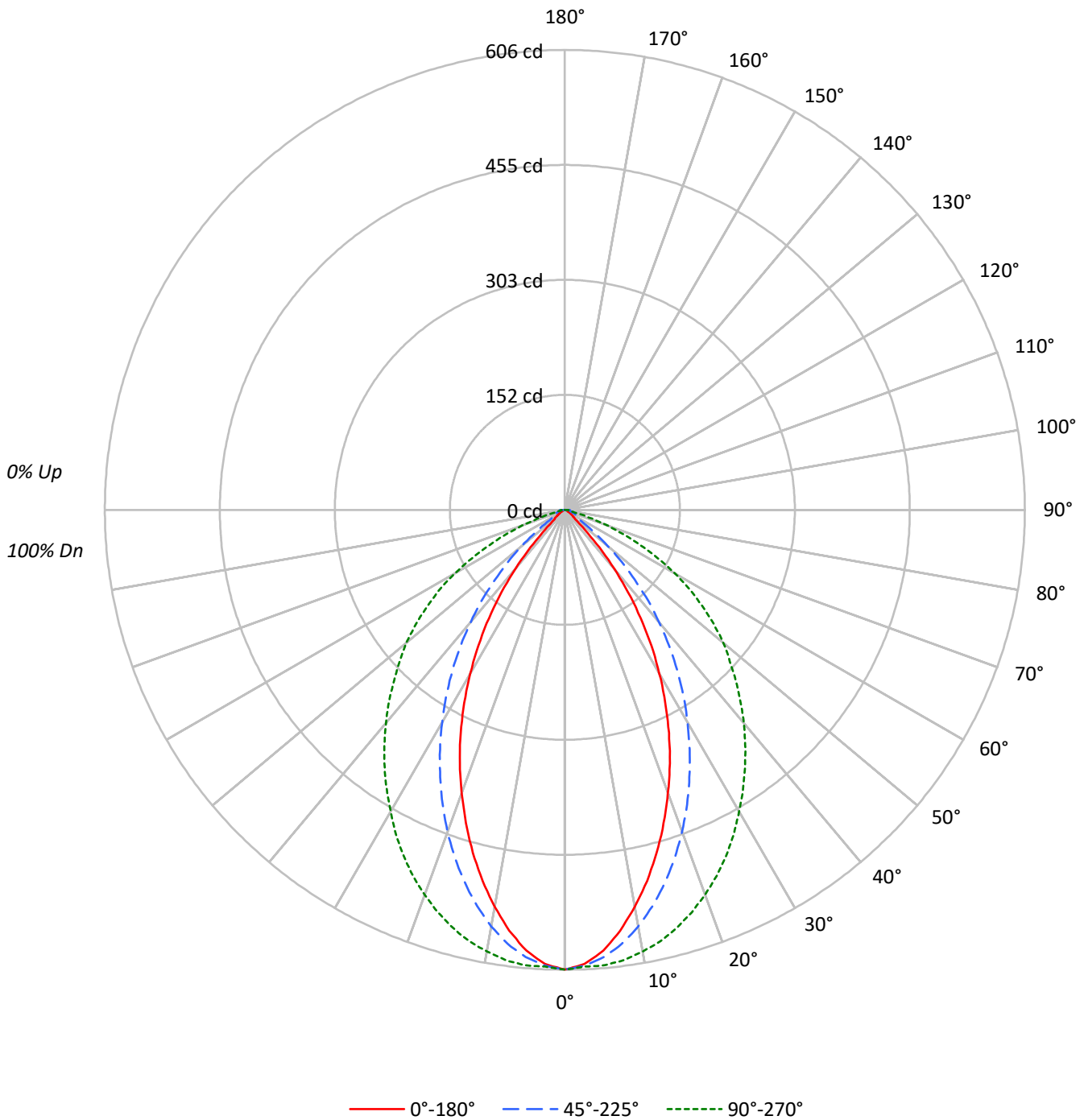
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 783.7 lumens  
Efficiency: N/A  
Efficacy: 45.0 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	104	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80				
3	98	89	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	67	74	70	67	65				
5	85	75	68	63	83	74	67	62	72	66	62	70	65	61	69	64	60	59				
6	80	69	62	57	78	68	61	56	67	60	56	65	60	56	64	59	55	53				
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49				
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	46	45				
9	67	55	48	44	65	55	48	44	54	48	43	53	47	43	52	47	43	41				
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	44	40	38				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4170	4170	4170
5°	4029	4089	4164
10°	3712	3896	4131
15°	3335	3627	4064
20°	2910	3309	3955
25°	2464	2950	3820
30°	1980	2569	3649
35°	1465	2167	3479
40°	908	1730	3297
45°	353	1265	3099
50°	166	793	2920
55°	121	340	2650
60°	84	241	2298
65°	55	253	1787
70°	54	229	1125
75°	72	231	359
80°	107	266	242
85°	158	529	371

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3099 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.5	7.1
10°-20°	143.9	18.4
20°-30°	183.3	23.4
30°-40°	170.6	21.8
40°-50°	117.4	15.0
50°-60°	66.5	8.5
60°-70°	31.4	4.0
70°-80°	9.8	1.3
80°-90°	5.1	0.7
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°	382.8	48.8
0°-40°	553.4	70.6
0°-60°	737.4	94.1
0°-90°	783.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	783.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	606	606	606	606	606	
5°	583	591	592	597	602	54
15°	468	483	509	547	570	130
25°	324	345	388	454	503	148
35°	174	198	258	346	414	108
45°	36	58	130	235	318	34
55°	10	11	28	135	221	9
65°	3	4	16	48	110	4
75°	3	6	9	9	14	3
85°	2	5	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°	605.7	605.7	605.7	605.7	605.7
2.5°	599.0	605.1	601.0	601.7	602.4
5°	582.9	590.9	591.6	597.0	602.4
7.5°	559.3	569.4	576.8	589.6	598.3
10°	531.0	543.1	557.3	578.1	590.9
12.5°	500.7	514.9	534.4	564.0	582.2
15°	467.8	483.2	508.8	547.2	570.1
17.5°	432.8	450.3	481.2	527.0	555.9
20°	397.1	415.9	451.6	504.1	539.8
22.5°	361.4	380.9	420.6	479.2	522.3
25°	324.4	345.3	388.3	453.6	502.8
27.5°	286.7	308.3	356.0	427.4	481.9
30°	249.0	271.9	323.1	400.5	459.0
32.5°	212.0	234.9	290.8	373.5	436.8
35°	174.3	198.5	257.8	345.9	413.9
37.5°	136.6	162.9	225.5	317.7	390.4
40°	101.0	125.9	192.5	290.1	366.8
42.5°	67.3	91.5	162.9	262.5	342.6
45°	36.3	57.9	129.9	234.9	318.3
47.5°	19.5	31.0	101.6	208.0	294.8
50°	15.5	17.5	74.0	183.1	272.6
52.5°	12.8	14.1	48.5	159.5	247.0
55°	10.1	11.4	28.3	135.3	220.8
57.5°	8.1	9.4	18.2	112.4	195.2
60°	6.1	7.4	17.5	90.2	166.9
62.5°	4.7	5.4	16.2	69.3	137.3
65°	3.4	4.0	15.5	48.5	109.7
67.5°	2.7	3.4	14.1	31.0	82.1
70°	2.7	2.7	11.4	20.2	55.9
72.5°	2.7	4.7	10.1	13.5	33.7
75°	2.7	6.1	8.7	9.4	13.5
77.5°	2.7	6.7	7.4	7.4	7.4
80°	2.7	6.1	6.7	6.7	6.1
82.5°	2.7	5.4	6.1	6.7	5.4
85°	2.0	5.4	6.7	6.1	4.7
87.5°	2.0	5.4	6.1	5.4	3.4
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	14.21	15.50	14.57	15.81	16.13
	3H	0.00	0.00	0.00	0.00	0.00	14.93	16.07	15.31	16.40	16.76
	4H	0.00	0.00	0.00	0.00	0.00	14.95	16.01	15.35	16.36	16.75
	6H	0.00	0.00	0.00	0.00	0.29	14.90	15.88	15.32	16.25	16.64
	8H	0.00	0.12	0.00	0.51	0.91	14.88	15.80	15.31	16.19	16.60
	12H	0.00	0.66	0.21	1.04	1.47	14.86	15.74	15.29	16.13	16.56
4H	2H	0.00	0.00	0.00	0.13	0.52	14.00	15.06	14.40	15.41	15.80
	3H	0.00	0.40	0.00	0.80	1.21	14.76	15.62	15.17	16.03	16.43
	4H	0.55	1.32	0.98	1.74	2.19	14.78	15.56	15.22	15.98	16.42
	6H	1.83	2.49	2.29	2.94	3.41	14.76	15.43	15.23	15.88	16.34
	8H	2.41	3.03	2.88	3.48	3.95	14.75	15.37	15.22	15.82	16.29
	12H	2.97	3.52	3.46	4.00	4.48	14.75	15.30	15.24	15.79	16.26
8H	4H	1.95	2.58	2.42	3.02	3.50	14.67	15.29	15.14	15.74	16.21
	6H	3.52	4.03	4.02	4.53	5.01	14.66	15.16	15.16	15.66	16.14
	8H	4.32	4.77	4.84	5.29	5.78	14.67	15.12	15.19	15.64	16.13
	12H	5.16	5.56	5.67	6.05	6.63	14.73	15.13	15.24	15.63	16.20
12H	4H	2.17	2.72	2.66	3.21	3.68	14.62	15.17	15.11	15.66	16.13
	6H	3.89	4.35	4.41	4.86	5.36	14.61	15.07	15.13	15.58	16.08
	8H	4.89	5.29	5.40	5.78	6.36	14.66	15.06	15.17	15.56	16.13