

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: P1062100

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062100  
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-H610D840-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: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

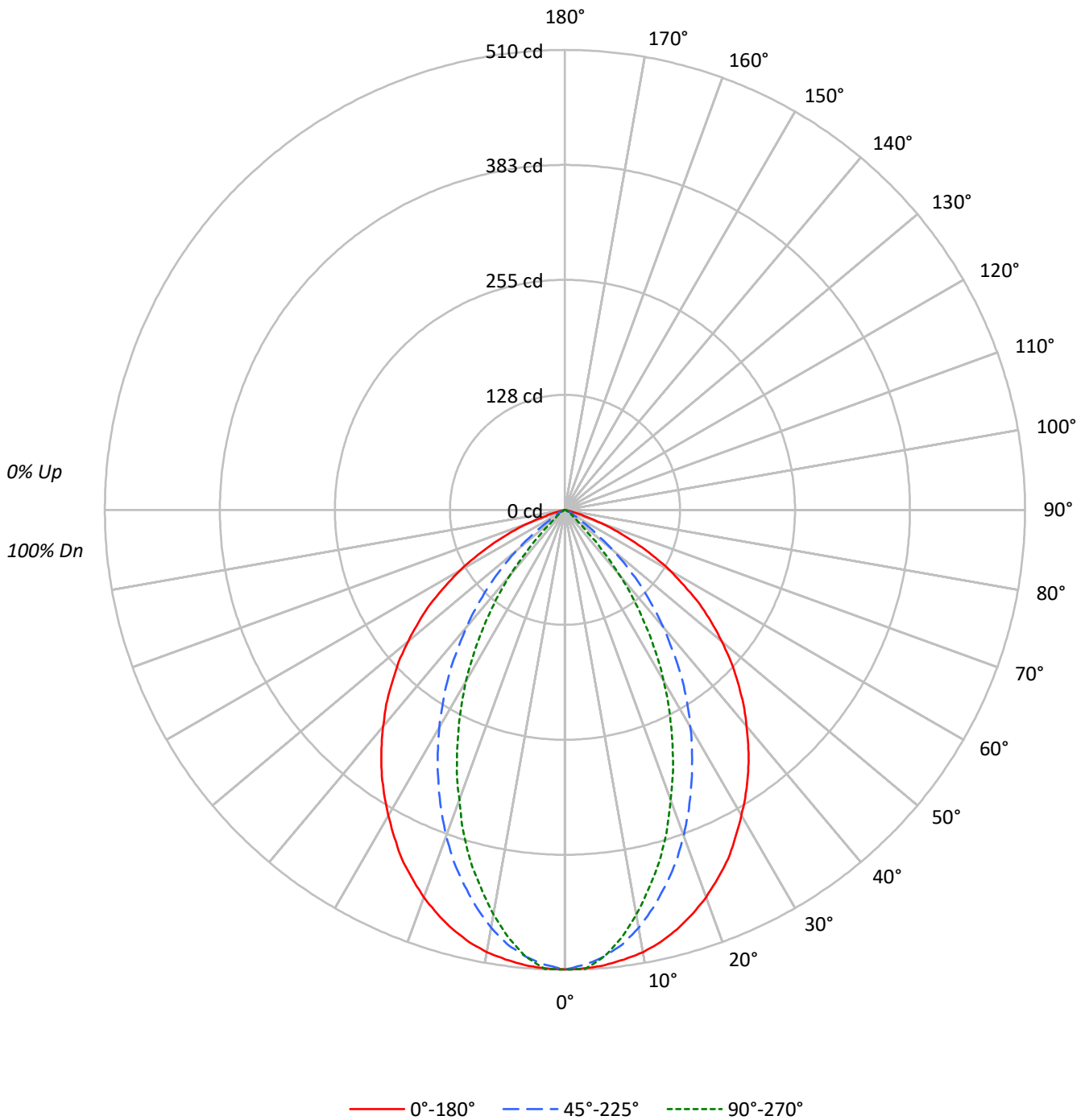
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 658.4 lumens  
Efficiency: N/A  
Efficacy: 37.8 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°	3509	3509	3509
5°	3503	3438	3438
10°	3483	3290	3187
15°	3431	3072	2880
20°	3350	2818	2507
25°	3248	2523	2135
30°	3111	2213	1743
35°	2978	1888	1305
40°	2816	1523	846
45°	2638	1152	367
50°	2427	735	137
55°	2187	323	97
60°	1852	139	65
65°	1403	88	33
70°	854	40	14
75°	178	19	19
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2638 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.0	7.1
10°-20°	122.5	18.6
20°-30°	157.2	23.9
30°-40°	148.0	22.5
40°-50°	103.5	15.7
50°-60°	55.3	8.4
60°-70°	22.1	3.4
70°-80°	2.9	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°	326.7	49.6
0°-40°	474.7	72.1
0°-60°	633.5	96.2
0°-90°	658.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	658.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	510	510	510	510	510	
5°	507	506	498	499	498	48
15°	481	466	431	411	404	135
25°	428	390	332	296	281	196
35°	354	298	225	174	155	221
45°	271	203	118	57	38	209
55°	182	112	27	9	8	162
65°	86	34	5	3	2	86
75°	7	2	1	1	1	13
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°	509.6	509.6	509.6	509.6	509.6
2.5°	509.0	509.6	504.9	509.0	509.6
5°	506.9	505.6	497.5	498.9	497.5
7.5°	502.9	499.5	486.1	481.4	478.7
10°	498.2	490.8	470.6	460.5	455.8
12.5°	490.8	480.0	451.8	436.3	429.6
15°	481.4	465.9	431.0	410.8	404.1
17.5°	470.0	449.8	409.4	384.6	374.5
20°	457.2	430.3	384.6	355.0	342.2
22.5°	442.4	411.5	359.0	326.1	313.3
25°	427.6	389.9	332.1	295.8	281.0
27.5°	409.4	367.8	305.2	266.2	250.1
30°	391.3	345.6	278.3	236.0	219.2
32.5°	373.1	322.0	251.4	204.4	187.6
35°	354.3	297.8	224.6	173.5	155.3
37.5°	334.1	273.6	195.6	143.9	125.1
40°	313.3	250.1	169.4	115.0	94.1
42.5°	293.1	226.6	143.2	86.7	63.9
45°	270.9	203.0	118.3	57.1	37.7
47.5°	250.1	180.2	92.8	32.9	19.5
50°	226.6	156.7	68.6	17.5	12.8
52.5°	204.4	133.8	45.7	11.4	10.1
55°	182.2	111.6	26.9	9.4	8.1
57.5°	156.7	90.1	14.8	7.4	6.1
60°	134.5	70.6	10.1	5.4	4.7
62.5°	108.9	51.8	7.4	4.0	3.4
65°	86.1	34.3	5.4	2.7	2.0
67.5°	63.9	20.2	3.4	1.3	1.3
70°	42.4	10.8	2.0	0.7	0.7
72.5°	22.2	4.7	1.3	0.7	0.7
75°	6.7	2.0	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	13.31	14.57	13.67	14.88	15.20	0.00	0.00	0.00	0.00	0.00
	3H	13.89	15.00	14.27	15.33	15.70	0.00	0.00	0.00	0.00	0.00
	4H	13.86	14.89	14.26	15.24	15.62	0.00	0.00	0.00	0.00	0.00
	6H	13.77	14.71	14.19	15.09	15.48	0.00	0.00	0.00	0.00	0.00
	8H	13.72	14.62	14.15	15.01	15.41	0.00	0.00	0.00	0.00	0.00
	12H	13.68	14.53	14.11	14.91	15.34	0.00	0.00	0.00	0.00	0.00
4H	2H	13.08	14.11	13.48	14.46	14.85	0.00	0.00	0.00	0.00	0.00
	3H	13.67	14.51	14.09	14.91	15.32	0.00	0.00	0.00	0.00	0.00
	4H	13.62	14.36	14.06	14.78	15.23	0.00	0.00	0.00	0.00	0.00
	6H	13.53	14.17	14.00	14.62	15.09	0.00	0.00	0.00	0.00	0.00
	8H	13.47	14.07	13.95	14.52	14.99	0.00	0.00	0.00	0.00	0.00
	12H	13.42	13.95	13.91	14.43	14.90	0.00	0.00	0.00	0.00	0.00
8H	4H	13.47	14.07	13.95	14.52	14.99	0.00	0.00	0.00	0.00	0.00
	6H	13.37	13.85	13.87	14.35	14.83	0.00	0.00	0.00	0.00	0.00
	8H	13.30	13.73	13.83	14.25	14.74	0.00	0.00	0.00	0.00	0.00
	12H	13.25	13.63	13.77	14.13	14.70	0.00	0.00	0.00	0.00	0.00
12H	4H	13.42	13.95	13.91	14.43	14.91	0.00	0.00	0.00	0.00	0.00
	6H	13.30	13.73	13.83	14.25	14.74	0.00	0.00	0.00	0.00	0.00
	8H	13.25	13.63	13.77	14.13	14.70	0.00	0.00	0.00	0.00	0.00