

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1061821

Luminaire Tested: S125RDRP-S850D940-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1061821  
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: S125RDRP-S850D940-X4F0-XX-UDD-BVL-B  
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

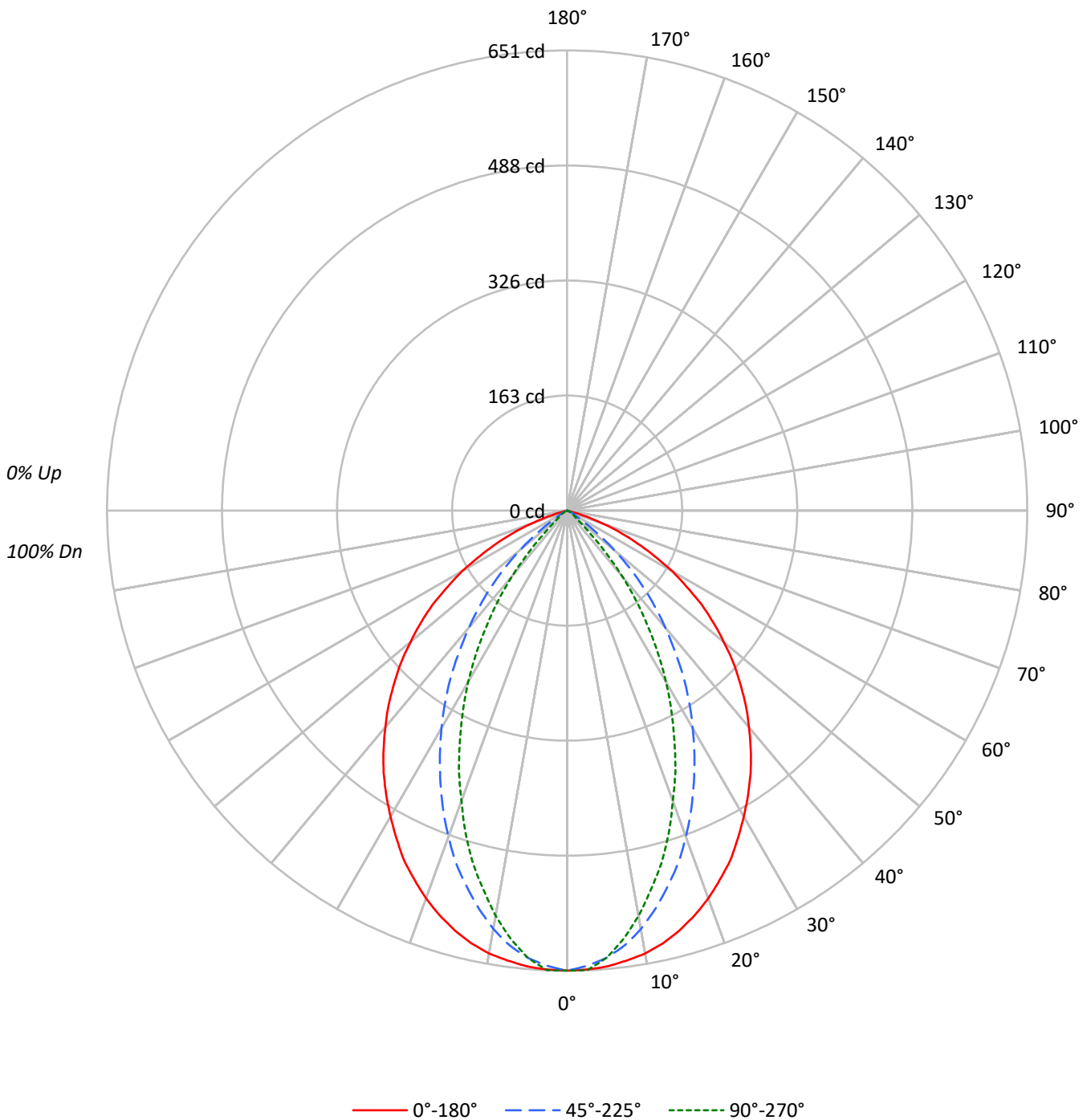
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 840.8 lumens  
Efficiency: N/A  
Efficacy: 32.6 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): 25.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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°	4481	4481	4481
5°	4475	4391	4391
10°	4448	4202	4070
15°	4382	3923	3678
20°	4278	3598	3202
25°	4149	3222	2727
30°	3973	2826	2225
35°	3803	2411	1667
40°	3596	1945	1080
45°	3369	1471	468
50°	3099	938	175
55°	2793	412	124
60°	2364	178	83
65°	1790	112	42
70°	1089	52	18
75°	229	24	24
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3369 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.0	7.1
10°-20°	156.4	18.6
20°-30°	200.8	23.9
30°-40°	189.0	22.5
40°-50°	132.2	15.7
50°-60°	70.6	8.4
60°-70°	28.2	3.3
70°-80°	3.7	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°	417.2	49.6
0°-40°	606.2	72.1
0°-60°	808.9	96.2
0°-90°	840.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	840.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	651	651	651	651	651	
5°	647	646	635	637	635	61
15°	615	595	550	525	516	173
25°	546	498	424	378	359	251
35°	452	380	287	222	198	282
45°	346	259	151	73	48	267
55°	233	142	34	12	10	206
65°	110	44	7	3	3	109
75°	9	3	1	1	1	17
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	650.8	650.8	650.8	650.8	650.8
2.5°	649.9	650.8	644.8	649.9	650.8
5°	647.4	645.6	635.3	637.1	635.3
7.5°	642.2	637.9	620.8	614.7	611.3
10°	636.2	626.8	601.0	588.1	582.1
12.5°	626.8	613.0	577.0	557.2	548.6
15°	614.7	595.0	550.3	524.6	516.0
17.5°	600.1	574.4	522.9	491.1	478.2
20°	583.8	549.5	491.1	453.3	437.0
22.5°	564.9	525.4	458.5	416.4	400.1
25°	546.1	498.0	424.1	377.8	358.9
27.5°	522.9	469.6	389.8	340.0	319.4
30°	499.7	441.3	355.5	301.4	279.9
32.5°	476.5	411.3	321.1	261.0	239.5
35°	452.5	380.3	286.8	221.5	198.3
37.5°	426.7	349.4	249.8	183.7	159.7
40°	400.1	319.4	216.4	146.8	120.2
42.5°	374.3	289.3	182.9	110.8	81.6
45°	346.0	259.3	151.1	73.0	48.1
47.5°	319.4	230.1	118.5	42.1	24.9
50°	289.3	200.0	87.6	22.3	16.3
52.5°	261.0	170.9	58.4	14.6	12.9
55°	232.7	142.5	34.3	12.0	10.3
57.5°	200.0	115.0	18.9	9.4	7.7
60°	171.7	90.2	12.9	6.9	6.0
62.5°	139.1	66.1	9.4	5.2	4.3
65°	109.9	43.8	6.9	3.4	2.6
67.5°	81.6	25.8	4.3	1.7	1.7
70°	54.1	13.7	2.6	0.9	0.9
72.5°	28.3	6.0	1.7	0.9	0.9
75°	8.6	2.6	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	14.15	15.42	14.52	15.73	16.04	0.00	0.00	0.00	0.00	0.00
	3H	14.74	15.85	15.12	16.18	16.55	0.00	0.00	0.00	0.00	0.00
	4H	14.70	15.73	15.11	16.09	16.47	0.00	0.00	0.00	0.00	0.00
	6H	14.62	15.56	15.03	15.93	16.33	0.00	0.00	0.00	0.00	0.00
	8H	14.57	15.46	15.00	15.85	16.26	0.00	0.00	0.00	0.00	0.00
	12H	14.52	15.38	14.96	15.76	16.19	0.00	0.00	0.00	0.00	0.00
4H	2H	13.93	14.96	14.33	15.31	15.69	0.00	0.00	0.00	0.00	0.00
	3H	14.52	15.35	14.93	15.76	16.16	0.00	0.00	0.00	0.00	0.00
	4H	14.47	15.21	14.90	15.63	16.08	0.00	0.00	0.00	0.00	0.00
	6H	14.38	15.02	14.85	15.47	15.93	0.00	0.00	0.00	0.00	0.00
	8H	14.32	14.91	14.79	15.36	15.83	0.00	0.00	0.00	0.00	0.00
	12H	14.27	14.79	14.76	15.28	15.75	0.00	0.00	0.00	0.00	0.00
8H	4H	14.32	14.91	14.79	15.36	15.84	0.00	0.00	0.00	0.00	0.00
	6H	14.21	14.69	14.72	15.19	15.68	0.00	0.00	0.00	0.00	0.00
	8H	14.15	14.58	14.67	15.10	15.59	0.00	0.00	0.00	0.00	0.00
	12H	14.10	14.48	14.62	14.98	15.55	0.00	0.00	0.00	0.00	0.00
12H	4H	14.27	14.79	14.76	15.28	15.75	0.00	0.00	0.00	0.00	0.00
	6H	14.15	14.58	14.67	15.10	15.59	0.00	0.00	0.00	0.00	0.00
	8H	14.10	14.48	14.62	14.98	15.55	0.00	0.00	0.00	0.00	0.00