

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: P1061827

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1061827  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-46)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-S850D940-X4F0-XX-UDD-WVL-B  
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

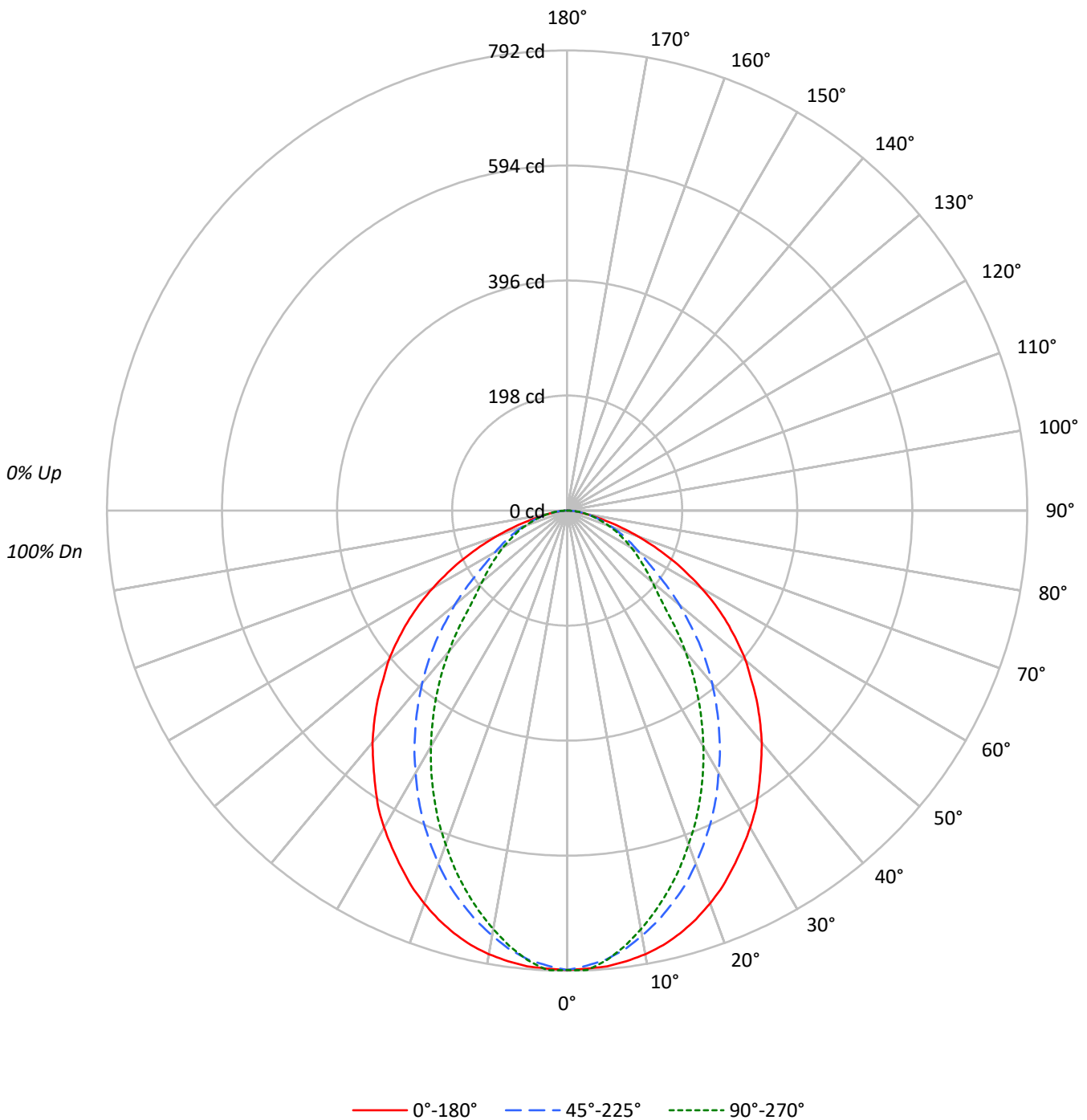
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1498.0 lumens  
Efficiency: N/A  
Efficacy: 58.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11  
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	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												100																
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87												87																
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75												75																
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65												65																
4	86	76	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57												57																
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52	50												50																
6	74	62	54	48	73	61	53	48	59	53	47	58	52	47	56	51	47	45												45																
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	40												40																
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38	36												36																
9	61	48	41	35	60	48	40	35	47	40	35	46	39	35	45	39	35	33												33																
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	30												30																

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

	0°	45°	90°
0°	5445	5445	5445
5°	5441	5359	5370
10°	5420	5193	5114
15°	5367	4988	4816
20°	5272	4744	4479
25°	5140	4462	4122
30°	5010	4144	3727
35°	4842	3825	3305
40°	4685	3488	2847
45°	4490	3119	2333
50°	4295	2704	2042
55°	4030	2257	1886
60°	3677	1975	1761
65°	3218	1805	1637
70°	2609	1625	1522
75°	1873	1484	1415
80°	1293	1328	1328
85°	948	1153	1224

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4490 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.5	4.9
10°-20°	198.9	13.3
20°-30°	274.9	18.3
30°-40°	292.8	19.5
40°-50°	257.2	17.2
50°-60°	195.0	13.0
60°-70°	126.6	8.5
70°-80°	62.7	4.2
80°-90°	16.4	1.1
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°	547.3	36.5
0°-40°	840.0	56.1
0°-60°	1292.2	86.3
0°-90°	1498.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1498.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	791	791	791	791	791	
5°	787	786	775	778	777	75
15°	753	736	700	684	676	212
25°	677	640	587	557	543	312
35°	576	523	455	414	393	361
45°	461	397	320	263	240	355
55°	336	270	188	162	157	299
65°	198	147	111	102	100	195
75°	70	62	56	54	53	79
85°	12	14	15	15	16	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	790.8	790.8	790.8	790.8	790.8
2.5°	789.1	790.8	783.9	789.9	791.6
5°	787.3	785.6	775.3	777.9	777.0
7.5°	782.2	778.8	761.6	759.9	756.4
10°	775.3	766.7	742.7	736.7	731.5
12.5°	765.9	752.1	722.9	710.9	704.9
15°	753.0	735.8	699.8	683.5	675.7
17.5°	737.5	713.5	675.7	653.4	644.8
20°	719.5	691.2	647.4	621.6	611.3
22.5°	699.8	666.3	617.3	589.9	578.7
25°	676.6	639.7	587.3	557.2	542.6
27.5°	653.4	612.2	555.5	522.0	506.6
30°	630.2	583.0	521.2	485.1	468.8
32.5°	605.3	552.9	489.4	449.9	431.0
35°	576.1	522.9	455.1	413.8	393.2
37.5°	547.8	491.1	421.6	375.2	355.5
40°	521.2	461.1	388.1	337.4	316.8
42.5°	491.1	429.3	354.6	301.4	278.2
45°	461.1	396.7	320.3	262.7	239.6
47.5°	429.3	365.8	284.2	227.5	212.1
50°	401.0	334.0	252.4	200.9	190.6
52.5°	368.3	303.1	219.8	180.3	173.4
55°	335.7	269.6	188.0	162.3	157.1
57.5°	302.2	239.6	163.1	146.8	141.7
60°	267.0	208.6	143.4	130.5	127.9
62.5°	231.8	176.9	126.2	116.8	113.3
65°	197.5	146.8	110.8	102.2	100.5
67.5°	162.3	119.3	95.3	89.3	88.4
70°	129.6	97.0	80.7	77.3	75.6
72.5°	99.6	77.3	67.8	65.3	64.4
75°	70.4	61.8	55.8	54.1	53.2
77.5°	47.2	47.2	44.6	42.9	43.8
80°	32.6	34.3	33.5	33.5	33.5
82.5°	21.5	23.2	24.0	24.0	24.0
85°	12.0	13.7	14.6	14.6	15.5
87.5°	4.3	5.2	6.0	6.9	6.9
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	16.44	17.93	16.81	18.25	18.56	12.68	14.17	13.05	14.49	14.80
	3H	17.75	19.09	18.13	19.42	19.78	14.27	15.60	14.64	15.93	16.29
	4H	18.12	19.37	18.52	19.72	20.10	14.87	16.12	15.27	16.47	16.85
	6H	18.30	19.45	18.71	19.82	20.21	15.34	16.50	15.75	16.86	17.26
	8H	18.33	19.43	18.76	19.82	20.23	15.50	16.60	15.93	16.99	17.39
	12H	18.35	19.40	18.78	19.78	20.21	15.61	16.66	16.04	17.05	17.48
4H	2H	16.55	17.81	16.95	18.16	18.53	13.34	14.60	13.74	14.95	15.32
	3H	18.04	19.08	18.45	19.48	19.88	15.13	16.16	15.54	16.56	16.97
	4H	18.52	19.45	18.95	19.86	20.30	15.84	16.78	16.28	17.19	17.63
	6H	18.80	19.61	19.26	20.05	20.52	16.43	17.24	16.89	17.69	18.15
	8H	18.87	19.63	19.33	20.07	20.54	16.64	17.39	17.10	17.84	18.31
	12H	18.91	19.59	19.39	20.06	20.54	16.79	17.47	17.27	17.95	18.42
8H	4H	18.60	19.36	19.06	19.80	20.27	16.15	16.91	16.62	17.36	17.82
	6H	18.96	19.59	19.46	20.08	20.56	16.86	17.49	17.36	17.98	18.46
	8H	19.08	19.64	19.59	20.15	20.64	17.14	17.70	17.65	18.21	18.70
	12H	19.16	19.66	19.67	20.15	20.72	17.37	17.86	17.88	18.36	18.92
12H	4H	18.59	19.27	19.08	19.75	20.22	16.18	16.86	16.66	17.33	17.81
	6H	18.96	19.53	19.48	20.04	20.52	16.91	17.47	17.43	17.98	18.47
	8H	19.12	19.62	19.63	20.11	20.68	17.25	17.74	17.76	18.24	18.80