

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: P1061760

Luminaire Tested: S125RDRP-S850D830-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1061760  
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: S125RDRP-S850D830-X4F0-XX-UDD-BVL-W  
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

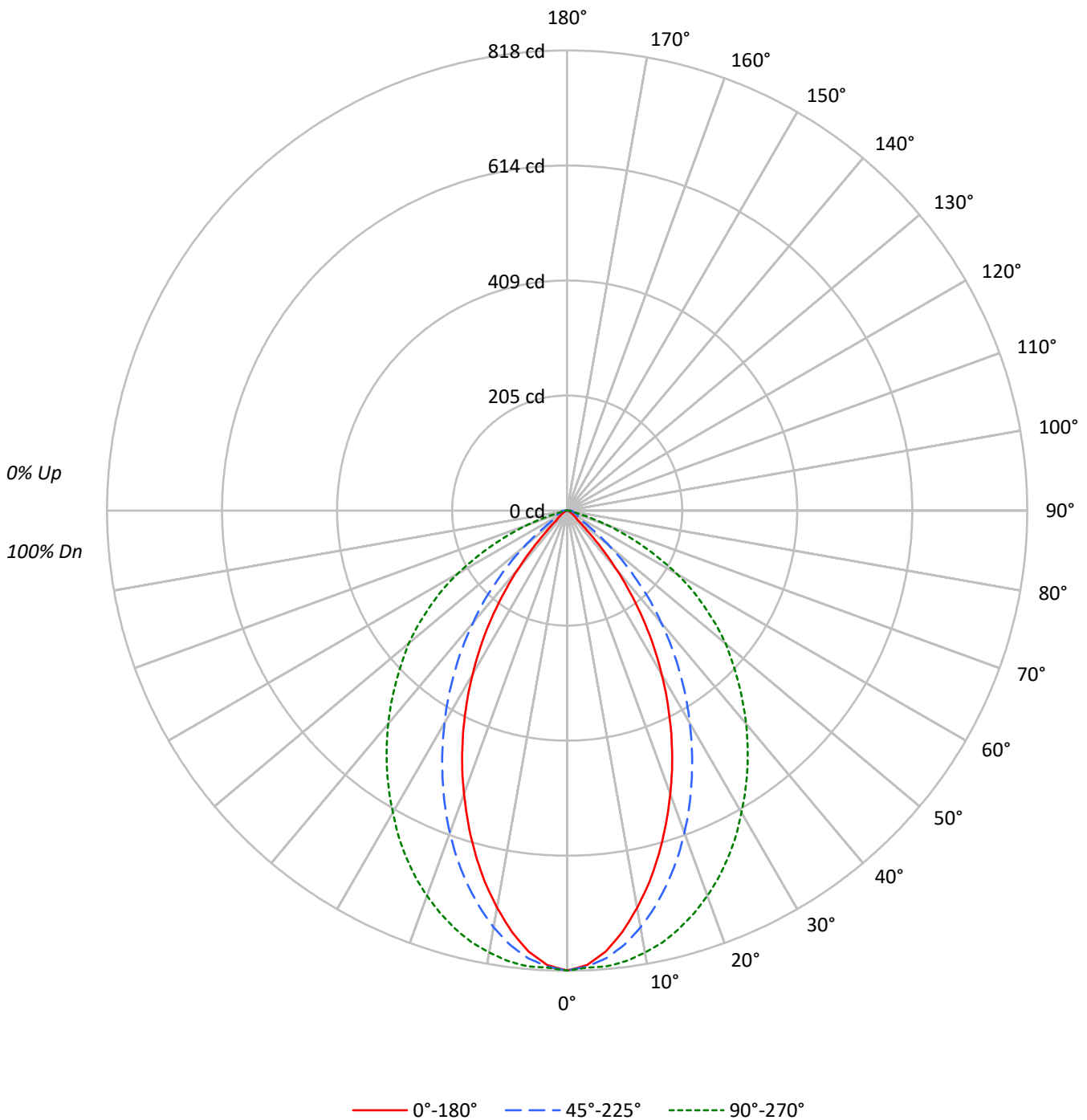
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1057.9 lumens  
Efficiency: N/A  
Efficacy: 41.0 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): 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	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°	5629	5629	5629
5°	5437	5520	5620
10°	5011	5259	5576
15°	4501	4896	5485
20°	3927	4467	5339
25°	3327	3982	5155
30°	2672	3467	4926
35°	1978	2924	4696
40°	1225	2335	4450
45°	478	1707	4184
50°	224	1070	3941
55°	163	459	3577
60°	113	325	3102
65°	73	340	2413
70°	72	310	1518
75°	96	314	484
80°	143	361	325
85°	213	719	506

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4184 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.0	7.1
10°-20°	194.3	18.4
20°-30°	247.4	23.4
30°-40°	230.3	21.8
40°-50°	158.5	15.0
50°-60°	89.7	8.5
60°-70°	42.4	4.0
70°-80°	13.3	1.3
80°-90°	6.9	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°	516.7	48.8
0°-40°	747.0	70.6
0°-60°	995.3	94.1
0°-90°	1057.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1057.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	818	818	818	818	818	
5°	787	798	799	806	813	73
15°	631	652	687	739	770	176
25°	438	466	524	612	679	200
35°	235	268	348	467	559	145
45°	49	78	175	317	430	46
55°	14	15	38	183	298	13
65°	4	6	21	65	148	5
75°	4	8	12	13	18	4
85°	3	7	9	8	6	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	817.6	817.6	817.6	817.6	817.6
2.5°	808.5	816.7	811.3	812.2	813.1
5°	786.7	797.6	798.6	805.8	813.1
7.5°	754.9	768.6	778.6	795.8	807.6
10°	716.8	733.1	752.2	780.4	797.6
12.5°	675.9	695.0	721.3	761.3	785.8
15°	631.4	652.3	686.8	738.6	769.5
17.5°	584.2	607.8	649.6	711.3	750.4
20°	536.0	561.4	609.6	680.5	728.6
22.5°	487.9	514.2	567.8	646.8	705.0
25°	437.9	466.1	524.2	612.3	678.6
27.5°	387.0	416.1	480.6	576.9	650.5
30°	336.1	367.0	436.1	540.5	619.6
32.5°	286.2	317.1	392.5	504.2	589.6
35°	235.3	268.0	347.9	467.0	558.7
37.5°	184.4	219.9	304.3	428.8	526.9
40°	136.3	169.9	259.8	391.6	495.1
42.5°	90.8	123.6	219.9	354.3	462.4
45°	49.1	78.1	175.3	317.1	429.7
47.5°	26.3	41.8	137.2	280.7	397.9
50°	20.9	23.6	99.9	247.1	367.9
52.5°	17.3	19.1	65.4	215.3	333.4
55°	13.6	15.4	38.2	182.6	298.0
57.5°	10.9	12.7	24.5	151.7	263.5
60°	8.2	10.0	23.6	121.7	225.3
62.5°	6.4	7.3	21.8	93.6	185.3
65°	4.5	5.5	20.9	65.4	148.1
67.5°	3.6	4.5	19.1	41.8	110.8
70°	3.6	3.6	15.4	27.3	75.4
72.5°	3.6	6.4	13.6	18.2	45.4
75°	3.6	8.2	11.8	12.7	18.2
77.5°	3.6	9.1	10.0	10.0	10.0
80°	3.6	8.2	9.1	9.1	8.2
82.5°	3.6	7.3	8.2	9.1	7.3
85°	2.7	7.3	9.1	8.2	6.4
87.5°	2.7	7.3	8.2	7.3	4.5
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	15.25	16.54	15.61	16.85	17.17
	3H	0.00	0.00	0.00	0.00	0.00	15.97	17.11	16.35	17.44	17.81
	4H	0.00	0.00	0.00	0.00	0.10	15.99	17.05	16.39	17.41	17.79
	6H	0.00	0.54	0.00	0.91	1.30	15.94	16.92	16.36	17.29	17.68
	8H	0.20	1.13	0.63	1.52	1.92	15.92	16.84	16.35	17.23	17.64
	12H	0.79	1.67	1.22	2.06	2.49	15.90	16.79	16.34	17.17	17.60
4H	2H	0.00	0.82	0.16	1.17	1.55	15.04	16.10	15.44	16.45	16.84
	3H	0.56	1.43	0.98	1.83	2.24	15.80	16.66	16.21	17.07	17.47
	4H	1.58	2.35	2.01	2.77	3.21	15.83	16.60	16.26	17.02	17.46
	6H	2.85	3.52	3.32	3.97	4.43	15.80	16.47	16.27	16.92	17.39
	8H	3.43	4.06	3.90	4.50	4.97	15.79	16.41	16.26	16.86	17.33
	12H	3.99	4.54	4.48	5.03	5.50	15.80	16.35	16.28	16.83	17.30
8H	4H	2.99	3.62	3.46	4.06	4.53	15.71	16.33	16.18	16.78	17.25
	6H	4.56	5.06	5.06	5.56	6.04	15.70	16.21	16.20	16.70	17.19
	8H	5.35	5.81	5.88	6.32	6.82	15.71	16.17	16.23	16.68	17.18
	12H	6.19	6.60	6.71	7.09	7.66	15.77	16.17	16.29	16.67	17.24
12H	4H	3.21	3.76	3.70	4.25	4.72	15.67	16.22	16.15	16.70	17.17
	6H	4.93	5.39	5.45	5.90	6.39	15.65	16.11	16.17	16.62	17.12
	8H	5.92	6.33	6.44	6.82	7.39	15.70	16.10	16.22	16.60	17.17