

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: P1062183

Luminaire Tested: S125RDR-H850D840-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062183  
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-H850D840-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: -

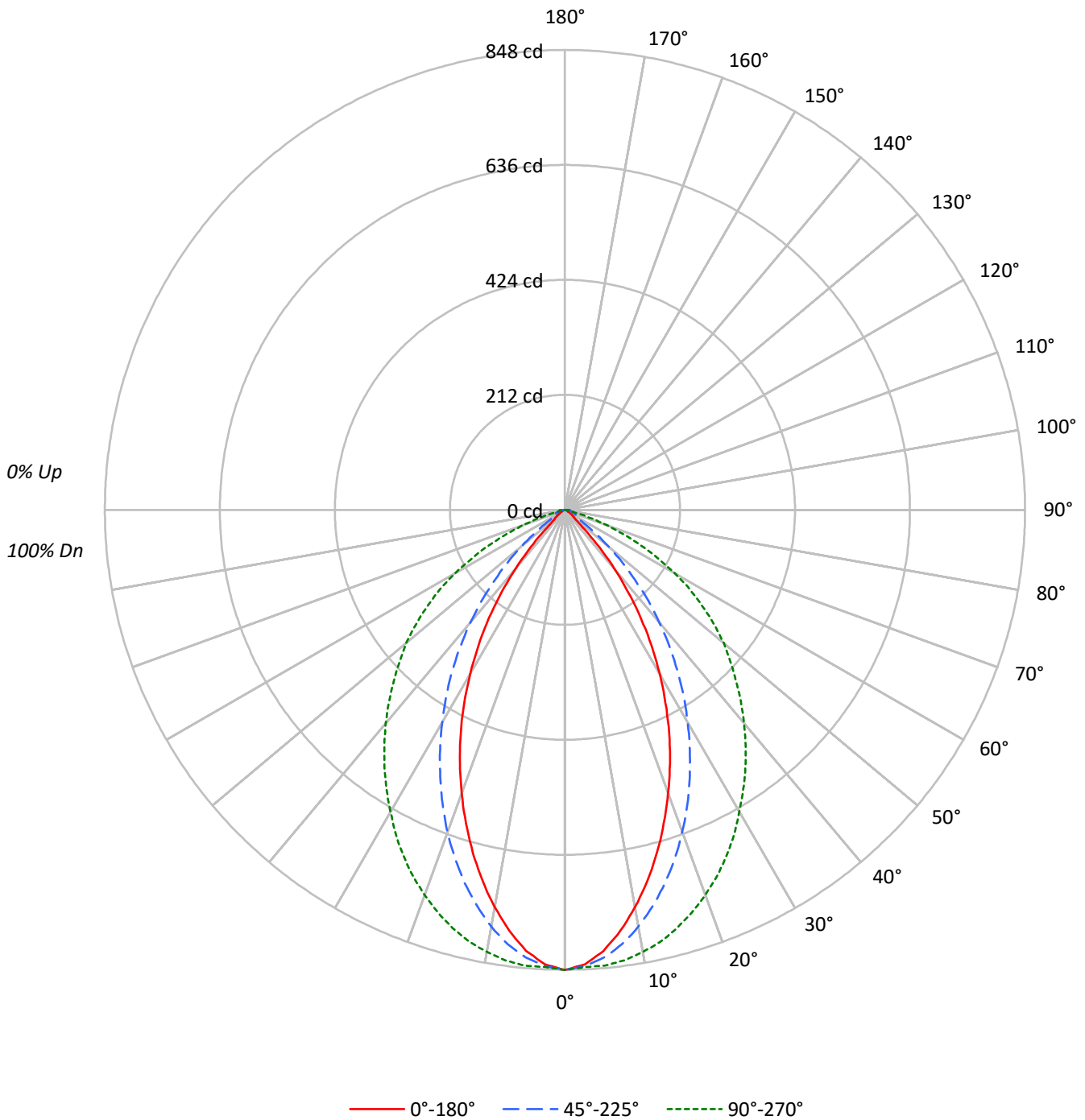
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1097.6 lumens  
Efficiency: N/A  
Efficacy: 46.7 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): 23.5  
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°	5841	5841	5841
5°	5642	5726	5831
10°	5200	5457	5786
15°	4670	5080	5691
20°	4075	4634	5539
25°	3451	4132	5349
30°	2773	3597	5111
35°	2052	3034	4873
40°	1271	2423	4617
45°	496	1771	4341
50°	232	1111	4089
55°	169	475	3712
60°	117	337	3220
65°	77	354	2502
70°	76	322	1574
75°	101	327	503
80°	151	373	337
85°	221	743	521

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4341 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.8	7.1
10°-20°	201.6	18.4
20°-30°	256.7	23.4
30°-40°	239.0	21.8
40°-50°	164.5	15.0
50°-60°	93.1	8.5
60°-70°	44.0	4.0
70°-80°	13.8	1.3
80°-90°	7.2	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°	536.1	48.8
0°-40°	775.1	70.6
0°-60°	1032.7	94.1
0°-90°	1097.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1097.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	848	848	848	848	848	
5°	816	828	828	836	844	76
15°	655	677	713	766	798	182
25°	454	484	544	635	704	207
35°	244	278	361	484	580	151
45°	51	81	182	329	446	48
55°	14	16	40	190	309	13
65°	5	6	22	68	154	5
75°	4	8	12	13	19	4
85°	3	8	9	8	7	3
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	848.3	848.3	848.3	848.3	848.3
2.5°	838.9	847.4	841.7	842.7	843.6
5°	816.3	827.6	828.5	836.1	843.6
7.5°	783.3	797.4	807.8	825.7	838.0
10°	743.7	760.7	780.5	809.7	827.6
12.5°	701.3	721.1	748.4	789.9	815.3
15°	655.1	676.8	712.6	766.3	798.4
17.5°	606.1	630.6	673.9	738.0	778.6
20°	556.1	582.5	632.5	706.0	756.0
22.5°	506.2	533.5	589.1	671.1	731.4
25°	454.3	483.5	543.9	635.3	704.1
27.5°	401.5	431.7	498.6	598.5	674.9
30°	348.8	380.8	452.4	560.8	642.8
32.5°	296.9	329.0	407.2	523.1	611.7
35°	244.1	278.1	361.0	484.5	579.7
37.5°	191.3	228.1	315.8	444.9	546.7
40°	141.4	176.3	269.6	406.3	513.7
42.5°	94.3	128.2	228.1	367.6	479.8
45°	50.9	81.1	181.9	329.0	445.8
47.5°	27.3	43.4	142.3	291.3	412.9
50°	21.7	24.5	103.7	256.4	381.7
52.5°	17.9	19.8	67.9	223.4	345.9
55°	14.1	16.0	39.6	189.5	309.2
57.5°	11.3	13.2	25.4	157.4	273.3
60°	8.5	10.4	24.5	126.3	233.8
62.5°	6.6	7.5	22.6	97.1	192.3
65°	4.7	5.7	21.7	67.9	153.6
67.5°	3.8	4.7	19.8	43.4	115.0
70°	3.8	3.8	16.0	28.3	78.2
72.5°	3.8	6.6	14.1	18.9	47.1
75°	3.8	8.5	12.3	13.2	18.9
77.5°	3.8	9.4	10.4	10.4	10.4
80°	3.8	8.5	9.4	9.4	8.5
82.5°	3.8	7.5	8.5	9.4	7.5
85°	2.8	7.5	9.4	8.5	6.6
87.5°	2.8	7.5	8.5	7.5	4.7
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	15.38	16.67	15.74	16.98	17.29
	3H	0.00	0.00	0.00	0.00	0.00	16.10	17.24	16.48	17.57	17.93
	4H	0.00	0.00	0.00	0.00	0.26	16.12	17.18	16.52	17.53	17.92
	6H	0.00	0.70	0.14	1.08	1.47	16.07	17.05	16.49	17.42	17.81
	8H	0.37	1.30	0.80	1.69	2.09	16.05	16.97	16.48	17.36	17.77
	12H	0.96	1.84	1.39	2.22	2.65	16.03	16.91	16.46	17.30	17.73
4H	2H	0.00	0.95	0.29	1.30	1.69	15.17	16.23	15.57	16.58	16.96
	3H	0.70	1.57	1.12	1.98	2.38	15.92	16.79	16.34	17.20	17.60
	4H	1.72	2.49	2.15	2.91	3.35	15.95	16.73	16.39	17.15	17.59
	6H	3.00	3.66	3.46	4.11	4.58	15.93	16.60	16.40	17.05	17.51
	8H	3.58	4.20	4.05	4.65	5.12	15.92	16.54	16.39	16.99	17.46
	12H	4.13	4.68	4.62	5.17	5.64	15.92	16.47	16.41	16.96	17.43
8H	4H	3.13	3.75	3.60	4.20	4.67	15.84	16.46	16.31	16.91	17.38
	6H	4.69	5.20	5.19	5.70	6.18	15.83	16.33	16.33	16.83	17.31
	8H	5.48	5.94	6.00	6.45	6.95	15.84	16.29	16.36	16.81	17.30
	12H	6.31	6.71	6.83	7.21	7.78	15.90	16.30	16.41	16.80	17.37
12H	4H	3.35	3.90	3.84	4.38	4.86	15.79	16.34	16.28	16.83	17.30
	6H	5.06	5.52	5.58	6.03	6.53	15.78	16.24	16.30	16.75	17.24
	8H	6.05	6.45	6.56	6.94	7.52	15.83	16.23	16.34	16.73	17.30