

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: P1062238

Luminaire Tested: S125RDR-H850D950-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062238  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-47)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H850D950-X4F0-XX-UDD-SVL-B  
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

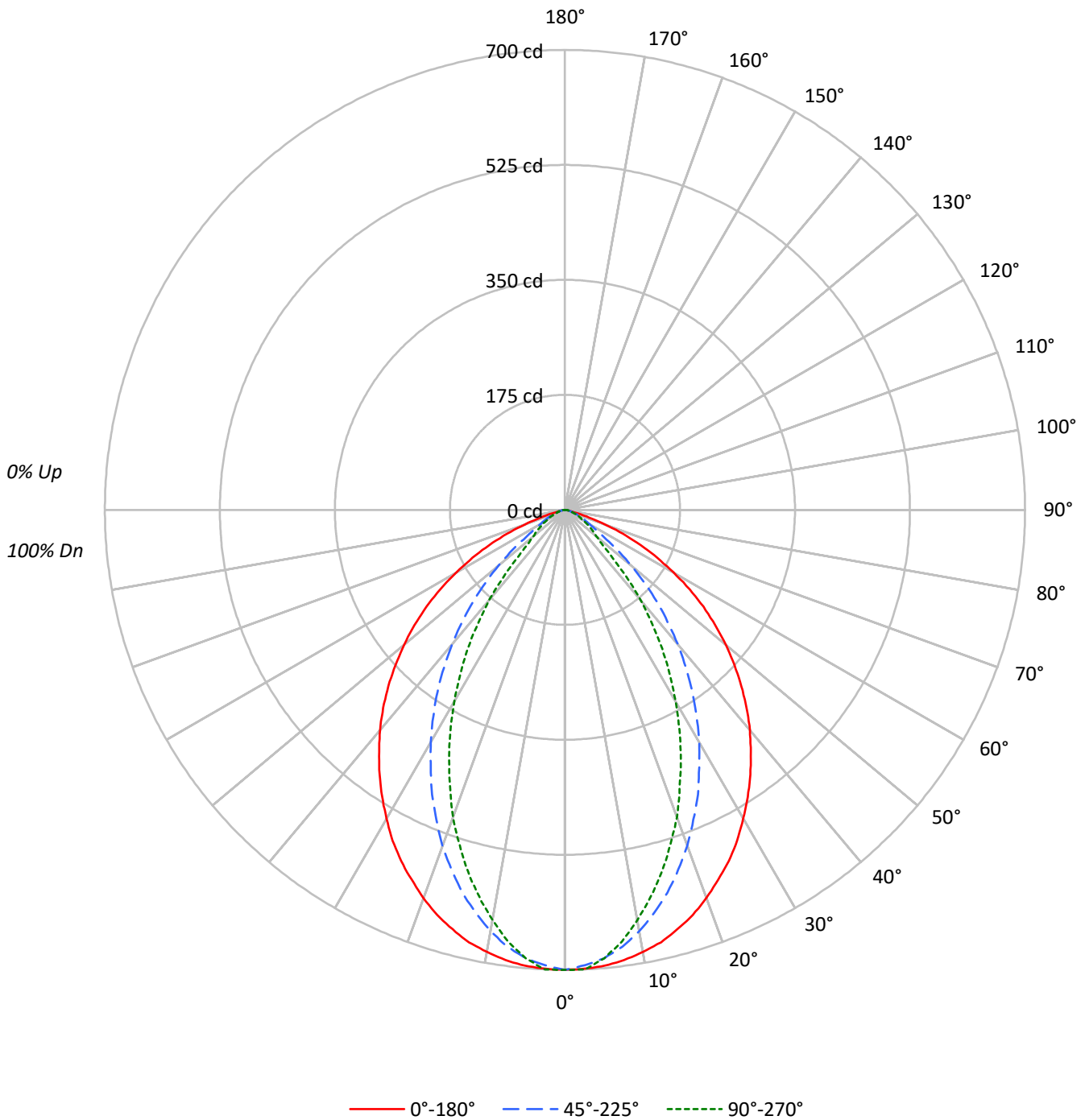
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1012.5 lumens  
Efficiency: N/A  
Efficacy: 43.1 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.85 / 1.01  
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	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	97	98	96	95	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63
5	84	74	66	61	82	73	66	61	71	65	60	69	64	59	67	63	59	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	53	52
7	74	62	55	50	72	62	55	50	60	54	49	59	53	49	58	53	49	47
8	69	58	50	45	68	57	50	45	56	50	45	55	49	45	54	48	45	43
9	65	54	47	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	61	50	43	38	49	43	38	48	42	38	47	42	38	36

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

	0°	45°	90°
0°	4820	4820	4820
5°	4814	4734	4734
10°	4777	4553	4435
15°	4711	4299	4064
20°	4608	3989	3650
25°	4481	3636	3169
30°	4314	3246	2674
35°	4135	2841	2169
40°	3934	2399	1607
45°	3698	1923	970
50°	3421	1411	667
55°	3086	865	556
60°	2622	588	441
65°	2072	450	347
70°	1307	322	286
75°	426	237	237
80°	143	174	210
85°	71	142	142

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3698 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.8	6.4
10°-20°	171.0	16.9
20°-30°	224.9	22.2
30°-40°	221.0	21.8
40°-50°	167.2	16.5
50°-60°	101.4	10.0
60°-70°	47.9	4.7
70°-80°	12.5	1.2
80°-90°	1.9	0.2
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°	460.7	45.5
0°-40°	681.7	67.3
0°-60°	950.2	93.9
0°-90°	1012.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1012.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	700	700	700	700	700	
5°	696	695	685	686	685	66
15°	661	643	603	580	570	186
25°	590	545	479	434	417	271
35°	492	426	338	278	258	307
45°	380	299	198	125	100	292
55°	257	176	72	49	46	229
65°	127	65	28	23	21	125
75°	16	11	9	9	9	25
85°	1	1	2	2	2	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	700.1	700.1	700.1	700.1	700.1
2.5°	699.2	699.2	693.9	700.1	700.1
5°	696.5	694.7	685.0	685.8	685.0
7.5°	691.2	687.6	670.7	666.3	662.7
10°	683.2	676.1	651.2	640.5	634.3
12.5°	674.3	661.8	628.0	612.9	603.1
15°	660.9	643.1	603.1	580.0	570.2
17.5°	646.7	620.9	573.8	546.2	533.7
20°	628.9	598.7	544.4	510.6	498.2
22.5°	609.3	573.8	510.6	473.2	456.3
25°	589.8	545.3	478.6	434.1	417.2
27.5°	567.5	516.8	442.1	395.9	377.2
30°	542.6	488.4	408.3	360.3	336.3
32.5°	517.7	459.0	372.7	320.2	296.2
35°	491.9	426.1	338.0	278.4	258.0
37.5°	464.3	395.0	302.4	240.2	216.2
40°	437.7	363.8	266.9	201.0	178.8
42.5°	409.2	332.7	231.3	162.8	137.9
45°	379.8	298.9	197.5	125.4	99.6
47.5°	349.6	268.6	163.7	92.5	74.7
50°	319.4	236.6	131.7	68.5	62.3
52.5°	288.2	205.5	99.6	56.9	54.3
55°	257.1	176.1	72.1	48.9	46.3
57.5°	225.1	144.1	54.3	41.8	39.1
60°	190.4	115.6	42.7	34.7	32.0
62.5°	158.3	90.7	34.7	28.5	26.7
65°	127.2	64.9	27.6	23.1	21.3
67.5°	95.2	43.6	21.3	17.8	17.8
70°	64.9	28.5	16.0	14.2	14.2
72.5°	39.1	16.9	11.6	11.6	11.6
75°	16.0	10.7	8.9	8.9	8.9
77.5°	5.3	6.2	6.2	7.1	7.1
80°	3.6	3.6	4.4	5.3	5.3
82.5°	1.8	2.7	2.7	3.6	3.6
85°	0.9	0.9	1.8	1.8	1.8
87.5°	0.0	0.0	0.0	0.9	0.9
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	14.79	16.13	15.16	16.44	16.75	5.45	6.78	5.81	7.09	7.41
	3H	15.50	16.68	15.88	17.01	17.37	6.23	7.41	6.61	7.73	8.10
	4H	15.52	16.61	15.92	16.96	17.35	6.48	7.57	6.88	7.92	8.31
	6H	15.45	16.45	15.86	16.82	17.22	6.65	7.66	7.07	8.03	8.42
	8H	15.41	16.36	15.84	16.75	17.15	6.70	7.65	7.13	8.04	8.45
	12H	15.36	16.27	15.80	16.66	17.09	6.71	7.62	7.14	8.00	8.43
4H	2H	14.62	15.72	15.03	16.07	16.45	5.94	7.03	6.34	7.38	7.77
	3H	15.37	16.26	15.78	16.67	17.07	6.84	7.73	7.26	8.14	8.54
	4H	15.39	16.18	15.82	16.60	17.05	7.16	7.95	7.59	8.37	8.81
	6H	15.33	16.01	15.79	16.46	16.92	7.41	8.10	7.88	8.54	9.01
	8H	15.28	15.91	15.75	16.36	16.83	7.48	8.12	7.95	8.57	9.04
	12H	15.23	15.80	15.72	16.28	16.75	7.51	8.07	7.99	8.55	9.03
8H	4H	15.27	15.91	15.74	16.36	16.83	7.27	7.91	7.74	8.35	8.83
	6H	15.20	15.72	15.70	16.21	16.69	7.58	8.10	8.09	8.60	9.08
	8H	15.14	15.61	15.67	16.12	16.62	7.69	8.16	8.21	8.67	9.17
	12H	15.10	15.51	15.62	16.01	16.58	7.76	8.17	8.27	8.66	9.23
12H	4H	15.23	15.79	15.71	16.27	16.75	7.24	7.80	7.73	8.29	8.76
	6H	15.14	15.60	15.66	16.12	16.61	7.55	8.02	8.08	8.54	9.03
	8H	15.10	15.52	15.62	16.01	16.58	7.70	8.11	8.21	8.60	9.17