

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: P1062232

Luminaire Tested: S125RDR-H850D940-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062232  
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: S125RDR-H850D940-X4F0-XX-UDD-WVL-B  
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

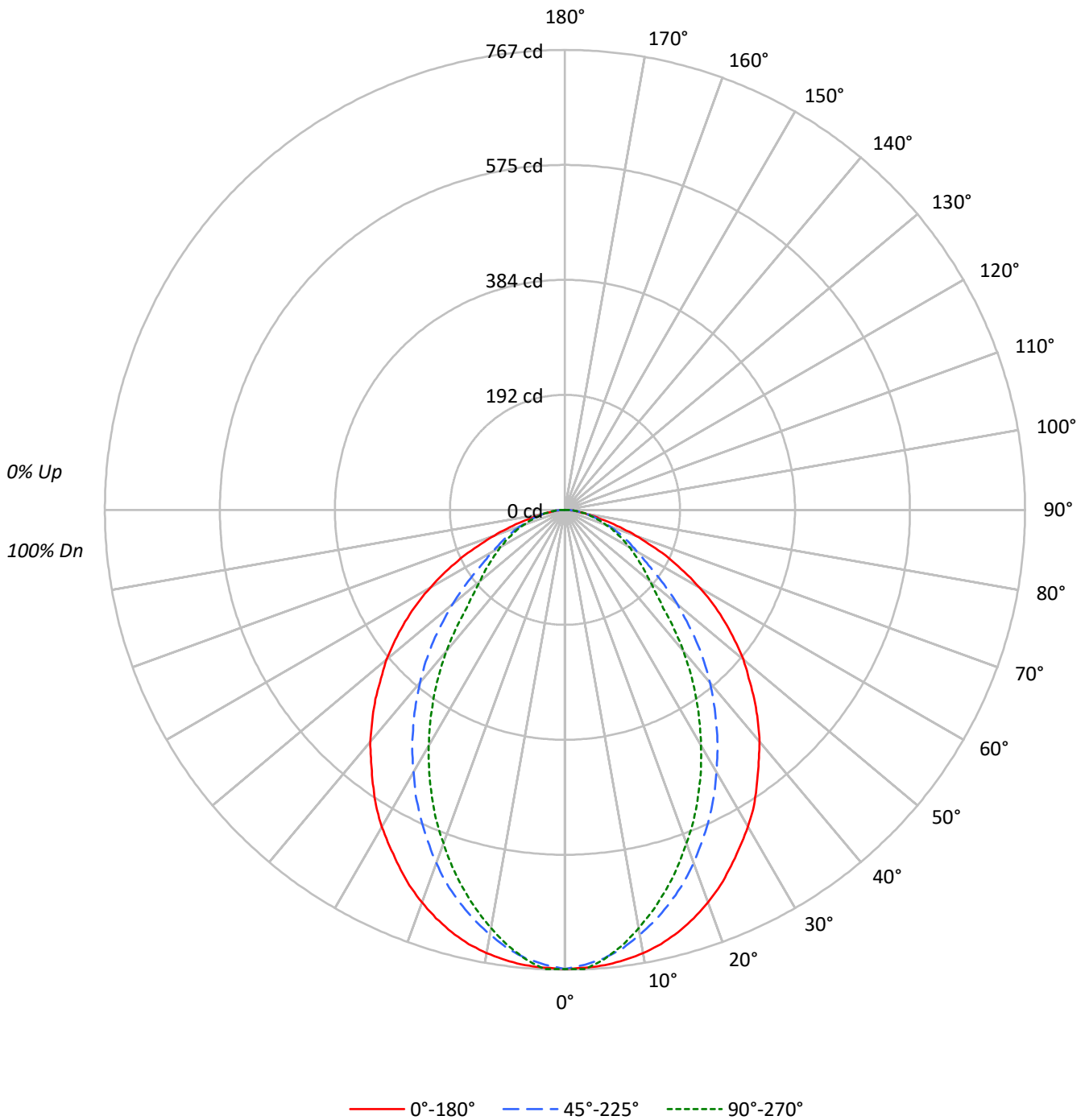
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1450.7 lumens  
Efficiency: N/A  
Efficacy: 61.7 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): 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

TEST NUMBER: P1062232

CATALOG NUMBER: S125RDR-H850D940-X4F0-XX-UDD-WVL-B

### Luminous Intensity Polar Plot





TEST NUMBER: P1062232

CATALOG NUMBER: S125RDR-H850D940-X4F0-XX-UDD-WVL-B

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	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	0														
RCR																																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100	100	100	100														
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87	87	87	87	87														
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75	75	75	75	75	75	75														
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65	65	65	65	65	65	65														
4	86	75	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57	57	57	57	57	57	57														
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52	50	50	50	50	50	50	50														
6	74	62	54	48	73	61	53	48	59	53	47	58	52	47	56	51	47	45	45	45	45	45	45	45														
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	40	40	40	40	40	40	40														
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38	36	36	36	36	36	36	36														
9	61	48	41	35	60	48	40	35	47	40	35	46	39	35	45	39	35	33	33	33	33	33	33	33														
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	30	30	30	30	30	30	30														

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

	0°	45°	90°
0°	5273	5273	5273
5°	5269	5189	5201
10°	5249	5028	4953
15°	5198	4830	4665
20°	5106	4593	4338
25°	4978	4320	3992
30°	4852	4013	3609
35°	4689	3704	3201
40°	4536	3378	2758
45°	4348	3020	2259
50°	4159	2618	1977
55°	3903	2186	1827
60°	3561	1913	1706
65°	3115	1748	1585
70°	2526	1574	1474
75°	1814	1437	1370
80°	1253	1285	1285
85°	916	1114	1185

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4348 cd/sqm



TEST NUMBER: P1062232

CATALOG NUMBER: S125RDR-H850D940-X4F0-XX-UDD-WVL-B

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.2	4.9
10°-20°	192.6	13.3
20°-30°	266.2	18.3
30°-40°	283.5	19.5
40°-50°	249.0	17.2
50°-60°	188.9	13.0
60°-70°	122.6	8.5
70°-80°	60.8	4.2
80°-90°	15.9	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°	529.9	36.5
0°-40°	813.5	56.1
0°-60°	1251.4	86.3
0°-90°	1450.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1450.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	766	766	766	766	766	
5°	762	761	751	753	752	72
15°	729	713	678	662	654	205
25°	655	619	569	540	526	302
35°	558	506	441	401	381	349
45°	446	384	310	254	232	344
55°	325	261	182	157	152	290
65°	191	142	107	99	97	189
75°	68	60	54	52	52	76
85°	12	13	14	14	15	14
90°	0	0	0	0	0	



TEST NUMBER: P1062232

CATALOG NUMBER: S125RDR-H850D940-X4F0-XX-UDD-WVL-B

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	765.8	765.8	765.8	765.8	765.8
2.5°	764.1	765.8	759.1	764.9	766.6
5°	762.4	760.8	750.8	753.3	752.5
7.5°	757.5	754.1	737.5	735.8	732.5
10°	750.8	742.5	719.2	713.4	708.4
12.5°	741.7	728.3	700.1	688.4	682.6
15°	729.2	712.6	677.6	661.8	654.4
17.5°	714.2	690.9	654.4	632.7	624.4
20°	696.8	669.3	626.9	602.0	592.0
22.5°	677.6	645.2	597.8	571.2	560.4
25°	655.2	619.4	568.7	539.6	525.5
27.5°	632.7	592.8	537.9	505.5	490.6
30°	610.3	564.6	504.7	469.8	454.0
32.5°	586.2	535.5	473.9	435.7	417.4
35°	557.9	506.4	440.7	400.8	380.8
37.5°	530.5	475.6	408.2	363.3	344.2
40°	504.7	446.5	375.8	326.8	306.8
42.5°	475.6	415.7	343.4	291.8	269.4
45°	446.5	384.1	310.1	254.4	232.0
47.5°	415.7	354.2	275.2	220.3	205.4
50°	388.3	323.4	244.4	194.6	184.6
52.5°	356.7	293.5	212.9	174.6	168.0
55°	325.1	261.1	182.1	157.1	152.2
57.5°	292.7	232.0	158.0	142.2	137.2
60°	258.6	202.0	138.9	126.4	123.9
62.5°	224.5	171.3	122.2	113.1	109.8
65°	191.2	142.2	107.3	98.9	97.3
67.5°	157.1	115.6	92.3	86.5	85.6
70°	125.5	94.0	78.2	74.8	73.2
72.5°	96.4	74.8	65.7	63.2	62.4
75°	68.2	59.9	54.0	52.4	51.5
77.5°	45.7	45.7	43.2	41.6	42.4
80°	31.6	33.3	32.4	32.4	32.4
82.5°	20.8	22.4	23.3	23.3	23.3
85°	11.6	13.3	14.1	14.1	15.0
87.5°	4.2	5.0	5.8	6.7	6.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1062232  
 CATALOG NUMBER: S125RDR-H850D940-X4F0-XX-UDD-WVL-B

**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	16.33	17.82	16.69	18.13	18.45	12.57	14.06	12.94	14.38	14.69
	3H	17.64	18.98	18.02	19.31	19.67	14.15	15.49	14.53	15.82	16.18
	4H	18.01	19.26	18.41	19.61	19.99	14.76	16.01	15.16	16.36	16.74
	6H	18.19	19.34	18.60	19.71	20.10	15.23	16.38	15.64	16.75	17.14
	8H	18.22	19.32	18.65	19.71	20.11	15.39	16.49	15.82	16.88	17.28
	12H	18.24	19.29	18.67	19.67	20.10	15.50	16.55	15.93	16.94	17.37
4H	2H	16.44	17.69	16.84	18.04	18.42	13.23	14.49	13.63	14.84	15.21
	3H	17.93	18.97	18.34	19.37	19.77	15.01	16.05	15.43	16.45	16.85
	4H	18.40	19.34	18.84	19.75	20.19	15.73	16.67	16.17	17.08	17.52
	6H	18.69	19.50	19.15	19.94	20.40	16.32	17.13	16.78	17.58	18.04
	8H	18.76	19.52	19.22	19.96	20.43	16.53	17.28	16.99	17.73	18.20
	12H	18.80	19.47	19.28	19.95	20.43	16.68	17.36	17.16	17.84	18.31
8H	4H	18.49	19.24	18.95	19.69	20.16	16.04	16.80	16.51	17.24	17.71
	6H	18.85	19.48	19.35	19.97	20.45	16.75	17.37	17.25	17.87	18.34
	8H	18.97	19.53	19.48	20.04	20.53	17.03	17.59	17.54	18.10	18.59
	12H	19.05	19.55	19.56	20.04	20.61	17.26	17.75	17.77	18.25	18.81
12H	4H	18.48	19.16	18.96	19.64	20.11	16.07	16.74	16.55	17.22	17.70
	6H	18.85	19.41	19.37	19.93	20.41	16.80	17.36	17.32	17.87	18.36
	8H	19.01	19.51	19.52	20.00	20.57	17.14	17.63	17.65	18.12	18.69