

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: P1062237

Luminaire Tested: S125RDR-H850D950-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062237  
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-H850D950-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: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

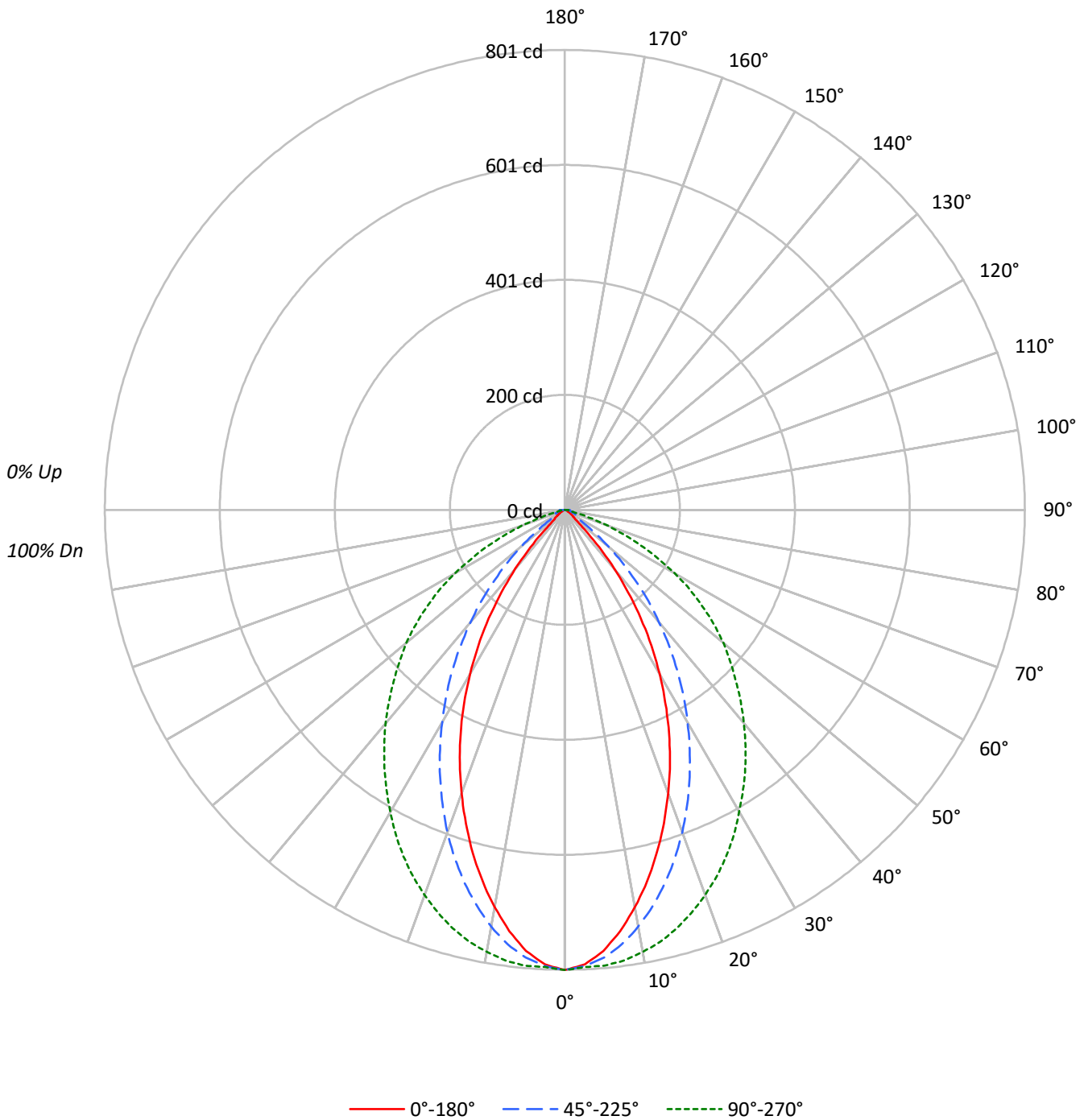
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1036.9 lumens  
Efficiency: N/A  
Efficacy: 44.1 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

TEST NUMBER: P1062237

CATALOG NUMBER: S125RDR-H850D950-X4F0-XX-UDD-BVL-W

### Luminous Intensity Polar Plot





TEST NUMBER: P1062237

CATALOG NUMBER: S125RDR-H850D950-X4F0-XX-UDD-BVL-W

**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				100
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	104	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80				80
3	98	89	83	78	95	88	82	78	85	80	76	83	79	75	80	77	74	72				72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	67	74	70	67	65				65
5	85	75	68	63	83	74	67	62	72	66	62	70	65	61	69	64	60	59				59
6	80	69	62	57	78	68	61	56	67	60	56	65	60	56	64	59	55	53				53
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49				49
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	46	45				45
9	67	55	48	44	65	55	48	44	54	48	43	53	47	43	52	47	43	41				41
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	44	40	38				38

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

	0°	45°	90°
0°	5518	5518	5518
5°	5329	5410	5508
10°	4912	5155	5466
15°	4412	4799	5376
20°	3850	4378	5232
25°	3261	3903	5054
30°	2620	3398	4828
35°	1938	2866	4603
40°	1201	2289	4362
45°	468	1674	4101
50°	220	1049	3863
55°	161	449	3506
60°	110	319	3041
65°	73	334	2364
70°	72	304	1488
75°	96	309	474
80°	143	353	317
85°	213	703	490

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4101 cd/sqm



TEST NUMBER: P1062237

CATALOG NUMBER: S125RDR-H850D950-X4F0-XX-UDD-BVL-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.5	7.1
10°-20°	190.4	18.4
20°-30°	242.5	23.4
30°-40°	225.7	21.8
40°-50°	155.4	15.0
50°-60°	88.0	8.5
60°-70°	41.6	4.0
70°-80°	13.0	1.3
80°-90°	6.8	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°	506.4	48.8
0°-40°	732.2	70.6
0°-60°	975.5	94.1
0°-90°	1036.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1036.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	801	801	801	801	801	
5°	771	782	783	790	797	71
15°	619	639	673	724	754	172
25°	429	457	514	600	665	196
35°	231	263	341	458	548	143
45°	48	77	172	311	421	45
55°	13	15	37	179	292	12
65°	4	5	20	64	145	5
75°	4	8	12	12	18	4
85°	3	7	9	8	6	3
90°	0	0	0	0	0	



TEST NUMBER: P1062237

CATALOG NUMBER: S125RDR-H850D950-X4F0-XX-UDD-BVL-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	801.4	801.4	801.4	801.4	801.4
2.5°	792.5	800.5	795.2	796.1	796.9
5°	771.1	781.8	782.7	789.8	796.9
7.5°	740.0	753.3	763.1	780.0	791.6
10°	702.6	718.6	737.3	764.9	781.8
12.5°	662.5	681.2	707.0	746.2	770.2
15°	618.9	639.3	673.2	723.9	754.2
17.5°	572.6	595.7	636.7	697.2	735.5
20°	525.4	550.3	597.5	666.9	714.1
22.5°	478.2	504.0	556.5	634.0	691.0
25°	429.2	456.8	513.8	600.2	665.2
27.5°	379.3	407.8	471.0	565.4	637.6
30°	329.5	359.7	427.4	529.8	607.3
32.5°	280.5	310.8	384.7	494.2	577.9
35°	230.6	262.7	341.0	457.7	547.6
37.5°	180.8	215.5	298.3	420.3	516.5
40°	133.6	166.5	254.7	383.8	485.3
42.5°	89.0	121.1	215.5	347.3	453.2
45°	48.1	76.6	171.9	310.8	421.2
47.5°	25.8	41.0	134.5	275.1	390.0
50°	20.5	23.2	97.9	242.2	360.6
52.5°	16.9	18.7	64.1	211.0	326.8
55°	13.4	15.1	37.4	179.0	292.1
57.5°	10.7	12.5	24.0	148.7	258.2
60°	8.0	9.8	23.2	119.3	220.8
62.5°	6.2	7.1	21.4	91.7	181.7
65°	4.5	5.3	20.5	64.1	145.1
67.5°	3.6	4.5	18.7	41.0	108.6
70°	3.6	3.6	15.1	26.7	73.9
72.5°	3.6	6.2	13.4	17.8	44.5
75°	3.6	8.0	11.6	12.5	17.8
77.5°	3.6	8.9	9.8	9.8	9.8
80°	3.6	8.0	8.9	8.9	8.0
82.5°	3.6	7.1	8.0	8.9	7.1
85°	2.7	7.1	8.9	8.0	6.2
87.5°	2.7	7.1	8.0	7.1	4.5
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1062237

CATALOG NUMBER: S125RDR-H850D950-X4F0-XX-UDD-BVL-W

**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	15.18	16.47	15.54	16.78	17.10
	3H	0.00	0.00	0.00	0.00	0.00	15.90	17.04	16.28	17.37	17.74
	4H	0.00	0.00	0.00	0.00	0.08	15.92	16.98	16.32	17.34	17.72
	6H	0.00	0.52	0.00	0.89	1.28	15.87	16.85	16.29	17.22	17.61
	8H	0.19	1.11	0.62	1.50	1.91	15.85	16.77	16.28	17.16	17.57
	12H	0.78	1.66	1.21	2.05	2.48	15.83	16.71	16.27	17.10	17.53
4H	2H	0.00	0.76	0.10	1.11	1.50	14.97	16.03	15.37	16.38	16.77
	3H	0.51	1.38	0.93	1.79	2.19	15.73	16.59	16.14	17.00	17.40
	4H	1.52	2.29	1.96	2.71	3.16	15.76	16.53	16.19	16.95	17.39
	6H	2.80	3.47	3.26	3.91	4.38	15.73	16.40	16.20	16.85	17.32
	8H	3.38	4.01	3.85	4.45	4.92	15.72	16.34	16.19	16.79	17.26
	12H	3.95	4.50	4.43	4.98	5.46	15.73	16.27	16.21	16.76	17.23
8H	4H	2.93	3.56	3.40	4.00	4.47	15.64	16.26	16.11	16.71	17.18
	6H	4.49	5.00	5.00	5.50	5.98	15.63	16.14	16.13	16.63	17.11
	8H	5.28	5.74	5.81	6.26	6.75	15.64	16.10	16.16	16.61	17.10
	12H	6.12	6.53	6.64	7.02	7.59	15.70	16.10	16.22	16.60	17.17
12H	4H	3.15	3.70	3.64	4.19	4.66	15.60	16.15	16.08	16.63	17.10
	6H	4.86	5.32	5.38	5.83	6.33	15.58	16.04	16.10	16.55	17.05
	8H	5.85	6.25	6.36	6.75	7.32	15.63	16.03	16.14	16.53	17.10