

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: P1062228

Luminaire Tested: S125RDR-H850D940-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062228  
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-H850D940-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, 90 CRI LEDS  
Ballast/Driver: -

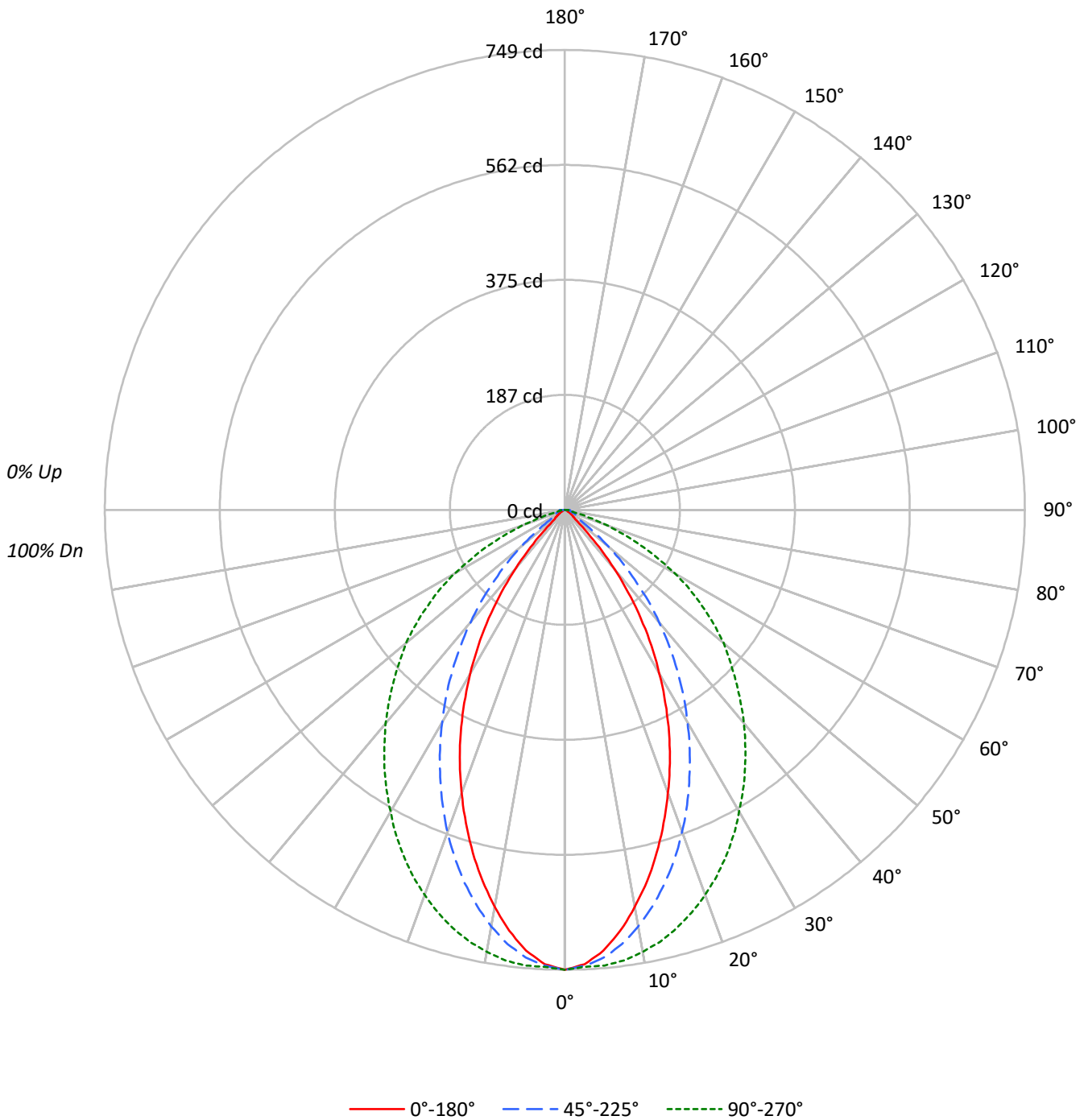
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 969.2 lumens  
Efficiency: N/A  
Efficacy: 41.2 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				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°	5158	5158	5158
5°	4982	5056	5148
10°	4591	4818	5109
15°	4123	4485	5025
20°	3598	4092	4891
25°	3048	3648	4723
30°	2449	3176	4513
35°	1812	2680	4303
40°	1122	2139	4077
45°	437	1564	3834
50°	205	981	3611
55°	150	420	3277
60°	103	297	2842
65°	68	311	2211
70°	66	284	1391
75°	88	287	442
80°	131	329	297
85°	197	656	458

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3834 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.7	7.1
10°-20°	178.0	18.4
20°-30°	226.7	23.4
30°-40°	211.0	21.8
40°-50°	145.2	15.0
50°-60°	82.2	8.5
60°-70°	38.8	4.0
70°-80°	12.1	1.3
80°-90°	6.3	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°	473.4	48.8
0°-40°	684.4	70.6
0°-60°	911.8	94.1
0°-90°	969.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	969.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	749	749	749	749	749	
5°	721	731	732	738	745	67
15°	578	598	629	677	705	161
25°	401	427	480	561	622	183
35°	216	246	319	428	512	133
45°	45	72	161	290	394	42
55°	12	14	35	167	273	11
65°	4	5	19	60	136	5
75°	3	8	11	12	17	3
85°	2	7	8	8	6	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	749.1	749.1	749.1	749.1	749.1
2.5°	740.7	748.2	743.2	744.1	744.9
5°	720.8	730.8	731.6	738.3	744.9
7.5°	691.6	704.1	713.3	729.1	739.9
10°	656.7	671.7	689.1	714.9	730.8
12.5°	619.2	636.7	660.8	697.5	719.9
15°	578.4	597.6	629.2	676.7	705.0
17.5°	535.2	556.8	595.1	651.7	687.5
20°	491.1	514.4	558.5	623.4	667.5
22.5°	446.9	471.1	520.2	592.6	645.9
25°	401.2	427.0	480.2	561.0	621.7
27.5°	354.6	381.2	440.3	528.5	595.9
30°	308.0	336.2	399.5	495.2	567.6
32.5°	262.2	290.5	359.6	461.9	540.2
35°	215.6	245.5	318.8	427.8	511.9
37.5°	169.0	201.4	278.8	392.8	482.7
40°	124.8	155.6	238.0	358.7	453.6
42.5°	83.2	113.2	201.4	324.6	423.6
45°	44.9	71.6	160.6	290.5	393.7
47.5°	24.1	38.3	125.7	257.2	364.5
50°	19.1	21.6	91.6	226.4	337.1
52.5°	15.8	17.5	59.9	197.3	305.5
55°	12.5	14.1	35.0	167.3	273.0
57.5°	10.0	11.7	22.5	139.0	241.4
60°	7.5	9.2	21.6	111.5	206.4
62.5°	5.8	6.7	20.0	85.7	169.8
65°	4.2	5.0	19.1	59.9	135.7
67.5°	3.3	4.2	17.5	38.3	101.5
70°	3.3	3.3	14.1	25.0	69.1
72.5°	3.3	5.8	12.5	16.6	41.6
75°	3.3	7.5	10.8	11.7	16.6
77.5°	3.3	8.3	9.2	9.2	9.2
80°	3.3	7.5	8.3	8.3	7.5
82.5°	3.3	6.7	7.5	8.3	6.7
85°	2.5	6.7	8.3	7.5	5.8
87.5°	2.5	6.7	7.5	6.7	4.2
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	14.94	16.24	15.31	16.55	16.86
	3H	0.00	0.00	0.00	0.00	0.00	15.66	16.81	16.04	17.14	17.50
	4H	0.00	0.00	0.00	0.00	0.00	15.69	16.75	16.09	17.10	17.49
	6H	0.00	0.25	0.00	0.62	1.01	15.64	16.61	16.05	16.99	17.38
	8H	0.00	0.83	0.34	1.22	1.63	15.62	16.54	16.05	16.93	17.34
	12H	0.50	1.38	0.93	1.77	2.20	15.60	16.48	16.03	16.86	17.29
4H	2H	0.00	0.52	0.00	0.87	1.25	14.74	15.80	15.14	16.15	16.53
	3H	0.26	1.13	0.68	1.54	1.94	15.49	16.36	15.91	16.76	17.17
	4H	1.27	2.05	1.71	2.47	2.91	15.52	16.30	15.96	16.72	17.16
	6H	2.54	3.21	3.01	3.66	4.13	15.50	16.17	15.96	16.61	17.08
	8H	3.13	3.75	3.60	4.20	4.67	15.48	16.11	15.95	16.56	17.03
	12H	3.69	4.24	4.18	4.72	5.20	15.49	16.04	15.98	16.53	17.00
8H	4H	2.69	3.31	3.16	3.76	4.23	15.40	16.03	15.87	16.48	16.95
	6H	4.25	4.76	4.75	5.25	5.73	15.39	15.90	15.90	16.40	16.88
	8H	5.05	5.50	5.57	6.02	6.51	15.41	15.86	15.93	16.38	16.87
	12H	5.89	6.29	6.41	6.79	7.36	15.47	15.87	15.98	16.36	16.94
12H	4H	2.91	3.46	3.40	3.94	4.42	15.36	15.91	15.85	16.40	16.87
	6H	4.62	5.08	5.14	5.59	6.08	15.35	15.80	15.87	16.32	16.81
	8H	5.61	6.02	6.13	6.51	7.08	15.40	15.80	15.91	16.29	16.87