

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: P1062150

Luminaire Tested: S125RDR-H610D940-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062150  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-83)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H610D940-X4F0-XX-UDD-SVL-W  
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

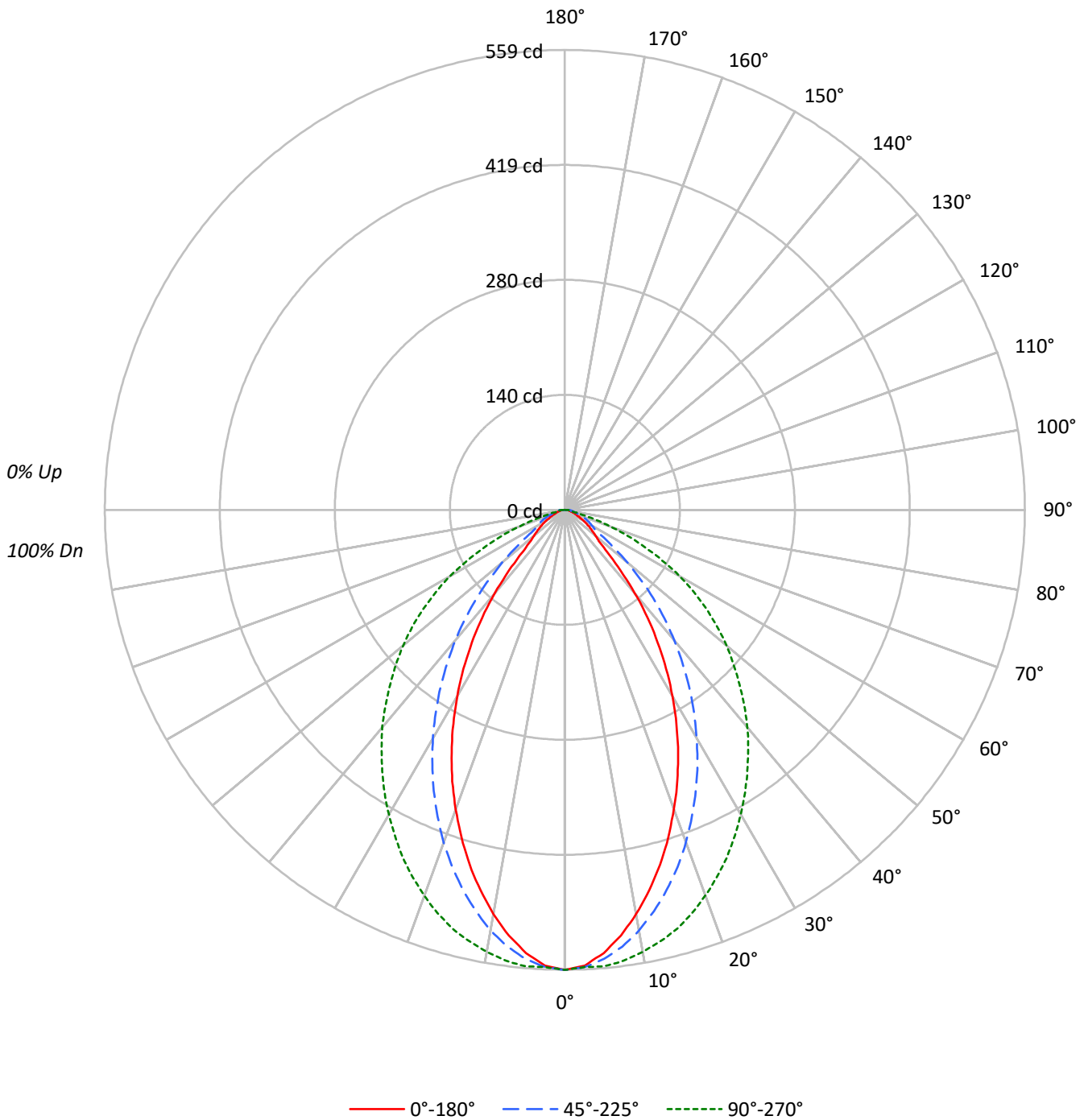
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 809.9 lumens  
Efficiency: N/A  
Efficacy: 46.5 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.15 / 1.02  
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.4  
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	111	108	104	101	109	105	103	100	101	99	97	98	96	94	94	92	91	89				89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	83	86	83	81	79				79
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70				70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62				62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	66	62	58	56				56
6	78	67	59	54	77	66	59	54	64	58	53	63	57	53	61	56	53	51				51
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46				46
8	69	57	50	45	68	57	50	45	55	49	44	54	48	44	53	48	44	42				42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	44	40	39				39
10	61	50	43	38	60	49	42	38	48	42	38	47	42	38	46	41	37	36				36

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

	0°	45°	90°
0°	3850	3850	3850
5°	3737	3787	3848
10°	3489	3631	3814
15°	3185	3409	3757
20°	2839	3152	3657
25°	2474	2862	3539
30°	2079	2547	3401
35°	1653	2212	3251
40°	1191	1859	3103
45°	706	1475	2922
50°	522	1050	2750
55°	442	649	2518
60°	359	523	2217
65°	280	484	1753
70°	240	419	1172
75°	221	364	474
80°	234	377	329
85°	284	561	379

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2922 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.5	6.4
10°-20°	135.3	16.7
20°-30°	176.9	21.8
30°-40°	172.3	21.3
40°-50°	129.3	16.0
50°-60°	81.0	10.0
60°-70°	42.2	5.2
70°-80°	15.3	1.9
80°-90°	6.0	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°	363.8	44.9
0°-40°	536.1	66.2
0°-60°	746.4	92.2
0°-90°	809.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	809.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	559	559	559	559	559	
5°	541	548	548	552	557	50
15°	447	460	478	508	527	125
25°	326	344	377	428	466	149
35°	197	218	263	333	387	122
45°	72	94	152	234	300	61
55°	37	39	54	141	210	33
65°	17	18	30	57	108	18
75°	8	11	14	14	18	9
85°	4	6	7	6	5	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	559.1	559.1	559.1	559.1	559.1
2.5°	554.4	559.7	556.2	556.2	556.2
5°	540.7	547.9	547.9	552.0	556.8
7.5°	521.7	530.0	535.4	545.5	552.6
10°	499.1	509.2	519.3	536.0	545.5
12.5°	473.6	485.5	499.7	522.9	537.2
15°	446.8	459.9	478.3	508.0	527.1
17.5°	417.7	433.2	455.2	490.8	514.0
20°	387.4	402.9	430.2	470.6	499.1
22.5°	357.1	373.8	403.5	449.2	483.1
25°	325.6	343.5	376.7	427.8	465.9
27.5°	293.5	312.0	348.8	405.8	446.8
30°	261.5	280.5	320.3	382.1	427.8
32.5°	229.4	249.6	291.8	357.7	407.6
35°	196.7	217.5	263.2	333.3	386.8
37.5°	165.2	186.0	234.7	308.4	366.0
40°	132.5	155.1	206.8	283.4	345.2
42.5°	100.4	123.6	178.9	258.5	322.7
45°	72.5	93.9	151.5	234.1	300.1
47.5°	55.9	67.7	123.6	209.2	278.1
50°	48.7	52.3	98.0	186.0	256.7
52.5°	42.2	44.6	73.7	164.6	233.5
55°	36.8	38.6	54.1	141.4	209.8
57.5°	30.9	33.3	42.8	118.8	185.4
60°	26.1	27.3	38.0	98.0	161.0
62.5°	21.4	22.6	33.9	77.2	133.7
65°	17.2	18.4	29.7	57.0	107.6
67.5°	14.3	14.9	25.0	40.4	82.6
70°	11.9	12.5	20.8	27.9	58.2
72.5°	10.1	11.9	16.6	20.2	36.8
75°	8.3	11.3	13.7	14.3	17.8
77.5°	7.1	10.7	11.3	11.3	10.1
80°	5.9	8.9	9.5	8.9	8.3
82.5°	4.8	7.1	7.7	7.7	6.5
85°	3.6	5.9	7.1	6.5	4.8
87.5°	2.4	5.3	5.9	5.3	3.6
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	4.61	5.96	4.97	6.27	6.59	14.21	15.56	14.58	15.88	16.19
	3H	5.47	6.67	5.85	7.00	7.36	15.05	16.25	15.43	16.58	16.95
	4H	5.89	7.01	6.29	7.36	7.74	15.13	16.25	15.53	16.60	16.98
	6H	6.31	7.34	6.73	7.71	8.10	15.11	16.14	15.52	16.51	16.90
	8H	6.49	7.47	6.92	7.86	8.26	15.10	16.07	15.53	16.46	16.87
	12H	6.66	7.59	7.09	7.97	8.40	15.09	16.02	15.52	16.40	16.83
4H	2H	5.57	6.69	5.97	7.04	7.42	14.08	15.19	14.48	15.55	15.93
	3H	6.62	7.54	7.03	7.94	8.34	14.99	15.90	15.40	16.31	16.71
	4H	7.18	8.00	7.62	8.42	8.86	15.09	15.91	15.52	16.33	16.77
	6H	7.78	8.49	8.24	8.93	9.40	15.12	15.82	15.58	16.27	16.73
	8H	8.02	8.68	8.49	9.13	9.60	15.12	15.78	15.58	16.22	16.69
	12H	8.25	8.83	8.73	9.31	9.79	15.13	15.71	15.61	16.20	16.67
8H	4H	7.65	8.32	8.12	8.76	9.23	15.01	15.67	15.48	16.12	16.59
	6H	8.46	9.00	8.96	9.50	9.98	15.07	15.61	15.57	16.10	16.58
	8H	8.84	9.33	9.36	9.84	10.33	15.10	15.59	15.62	16.10	16.59
	12H	9.23	9.66	9.75	10.16	10.73	15.16	15.59	15.68	16.09	16.66
12H	4H	7.71	8.29	8.19	8.77	9.25	14.98	15.56	15.47	16.05	16.52
	6H	8.59	9.07	9.11	9.59	10.08	15.03	15.52	15.55	16.03	16.53
	8H	9.07	9.50	9.59	10.00	10.57	15.10	15.53	15.62	16.03	16.60