

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: P1062231

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062231  
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-H850D940-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: -

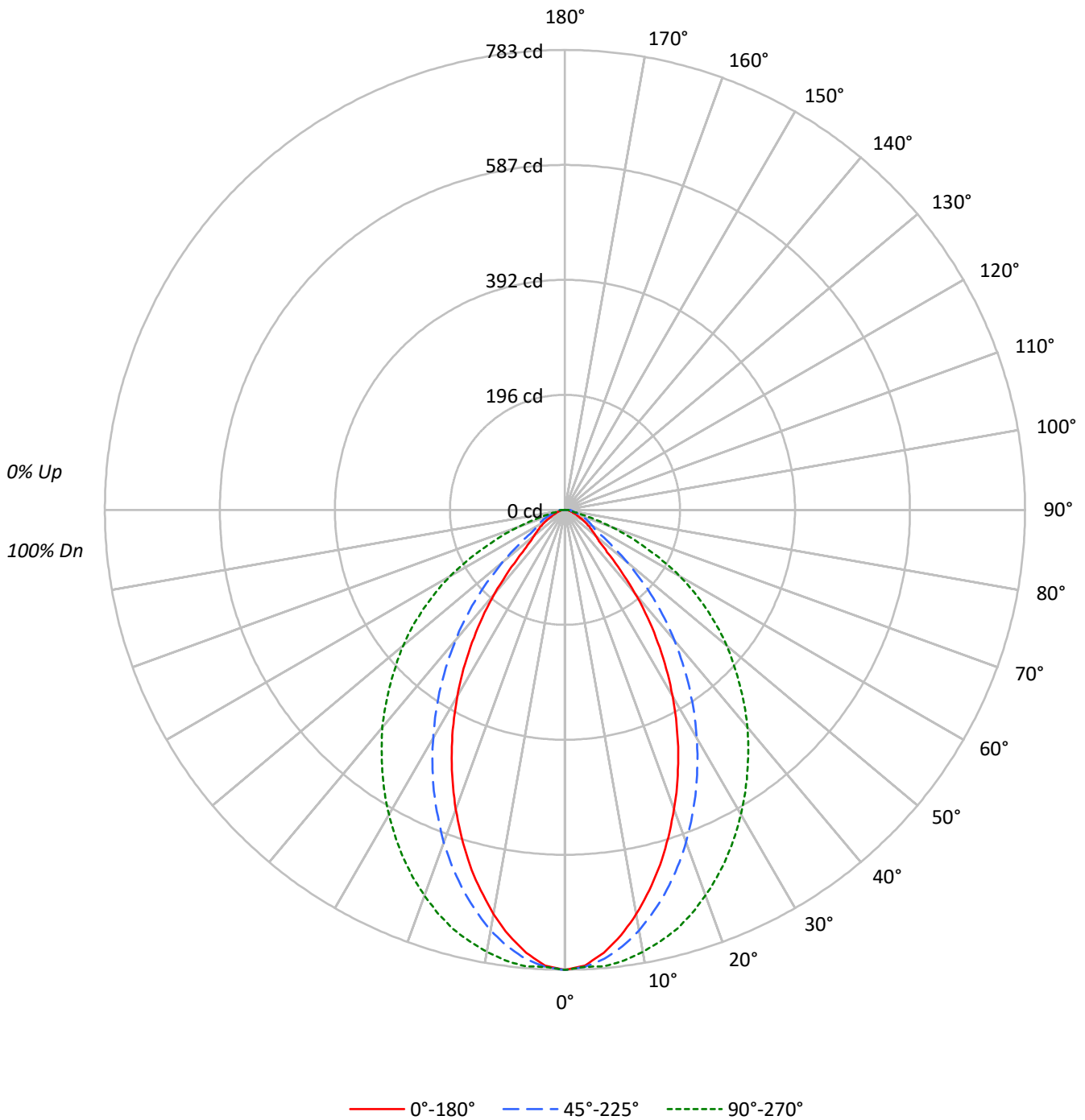
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1134.3 lumens  
Efficiency: N/A  
Efficacy: 48.3 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): 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	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	82	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°	5392	5392	5392
5°	5234	5303	5390
10°	4887	5085	5341
15°	4461	4775	5261
20°	3976	4415	5122
25°	3464	4008	4956
30°	2911	3566	4764
35°	2316	3099	4553
40°	1668	2603	4346
45°	988	2066	4093
50°	731	1471	3851
55°	619	909	3527
60°	504	734	3105
65°	393	678	2454
70°	334	586	1643
75°	311	508	665
80°	329	527	464
85°	395	790	529

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4093 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.2	6.4
10°-20°	189.6	16.7
20°-30°	247.8	21.8
30°-40°	241.4	21.3
40°-50°	181.0	16.0
50°-60°	113.5	10.0
60°-70°	59.1	5.2
70°-80°	21.4	1.9
80°-90°	8.5	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°	509.5	44.9
0°-40°	750.8	66.2
0°-60°	1045.4	92.2
0°-90°	1134.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1134.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	783	783	783	783	783	
5°	757	767	767	773	780	70
15°	626	644	670	712	738	175
25°	456	481	528	599	652	208
35°	276	305	369	467	542	171
45°	102	132	212	328	420	85
55°	52	54	76	198	294	46
65°	24	26	42	80	151	25
75°	12	16	19	20	25	13
85°	5	8	10	9	7	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	783.1	783.1	783.1	783.1	783.1
2.5°	776.4	783.9	778.9	778.9	778.9
5°	757.3	767.3	767.3	773.1	779.8
7.5°	730.7	742.3	749.8	763.9	773.9
10°	699.0	713.2	727.3	750.6	763.9
12.5°	663.2	679.9	699.9	732.3	752.3
15°	625.8	644.1	669.9	711.5	738.1
17.5°	585.0	606.7	637.4	687.4	719.8
20°	542.6	564.2	602.5	659.1	699.0
22.5°	500.1	523.4	565.0	629.1	676.6
25°	456.0	481.0	527.6	599.2	652.4
27.5°	411.1	436.9	488.5	568.4	625.8
30°	366.2	392.8	448.5	535.1	599.2
32.5°	321.2	349.5	408.6	501.0	570.9
35°	275.5	304.6	368.7	466.9	541.7
37.5°	231.3	260.5	328.7	431.9	512.6
40°	185.6	217.2	289.6	396.9	483.5
42.5°	140.6	173.1	250.5	362.0	451.9
45°	101.5	131.5	212.2	327.9	420.3
47.5°	78.2	94.9	173.1	292.9	389.5
50°	68.2	73.2	137.3	260.5	359.5
52.5°	59.1	62.4	103.2	230.5	327.0
55°	51.6	54.1	75.7	198.1	293.8
57.5°	43.3	46.6	59.9	166.4	259.6
60°	36.6	38.3	53.3	137.3	225.5
62.5°	30.0	31.6	47.4	108.2	187.2
65°	24.1	25.8	41.6	79.9	150.6
67.5°	20.0	20.8	35.0	56.6	115.7
70°	16.6	17.5	29.1	39.1	81.6
72.5°	14.1	16.6	23.3	28.3	51.6
75°	11.7	15.8	19.1	20.0	25.0
77.5°	10.0	15.0	15.8	15.8	14.1
80°	8.3	12.5	13.3	12.5	11.7
82.5°	6.7	10.0	10.8	10.8	9.2
85°	5.0	8.3	10.0	9.2	6.7
87.5°	3.3	7.5	8.3	7.5	5.0
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	5.77	7.12	6.14	7.44	7.75	15.38	16.73	15.75	17.05	17.36
	3H	6.63	7.83	7.01	8.16	8.52	16.22	17.42	16.60	17.75	18.12
	4H	7.05	8.17	7.46	8.52	8.91	16.30	17.42	16.70	17.77	18.15
	6H	7.48	8.51	7.90	8.88	9.27	16.28	17.31	16.70	17.68	18.07
	8H	7.66	8.64	8.09	9.03	9.43	16.27	17.24	16.70	17.64	18.04
	12H	7.83	8.76	8.26	9.14	9.57	16.26	17.19	16.69	17.57	18.00
4H	2H	6.73	7.85	7.14	8.20	8.59	15.25	16.37	15.65	16.72	17.10
	3H	7.79	8.70	8.20	9.11	9.51	16.16	17.07	16.57	17.48	17.88
	4H	8.35	9.17	8.78	9.59	10.03	16.26	17.08	16.69	17.50	17.94
	6H	8.95	9.66	9.41	10.10	10.57	16.29	16.99	16.75	17.44	17.91
	8H	9.19	9.85	9.66	10.30	10.77	16.29	16.95	16.76	17.40	17.87
	12H	9.42	10.00	9.90	10.48	10.96	16.30	16.89	16.79	17.37	17.84
8H	4H	8.82	9.48	9.29	9.93	10.40	16.18	16.85	16.65	17.29	17.76
	6H	9.63	10.17	10.14	10.67	11.15	16.24	16.78	16.74	17.28	17.76
	8H	10.02	10.50	10.54	11.02	11.51	16.27	16.76	16.79	17.27	17.76
	12H	10.41	10.84	10.92	11.33	11.90	16.34	16.77	16.85	17.26	17.83
12H	4H	8.87	9.46	9.36	9.94	10.41	16.15	16.74	16.64	17.22	17.69
	6H	9.76	10.24	10.28	10.76	11.25	16.21	16.69	16.73	17.21	17.70
	8H	10.25	10.68	10.76	11.17	11.74	16.28	16.71	16.79	17.20	17.77