

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: P1062185

Luminaire Tested: S125RDR-H850D840-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062185
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-86)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDR-H850D840-X4F0-XX-UDD-SVL-S
Description: DEFINE 5 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

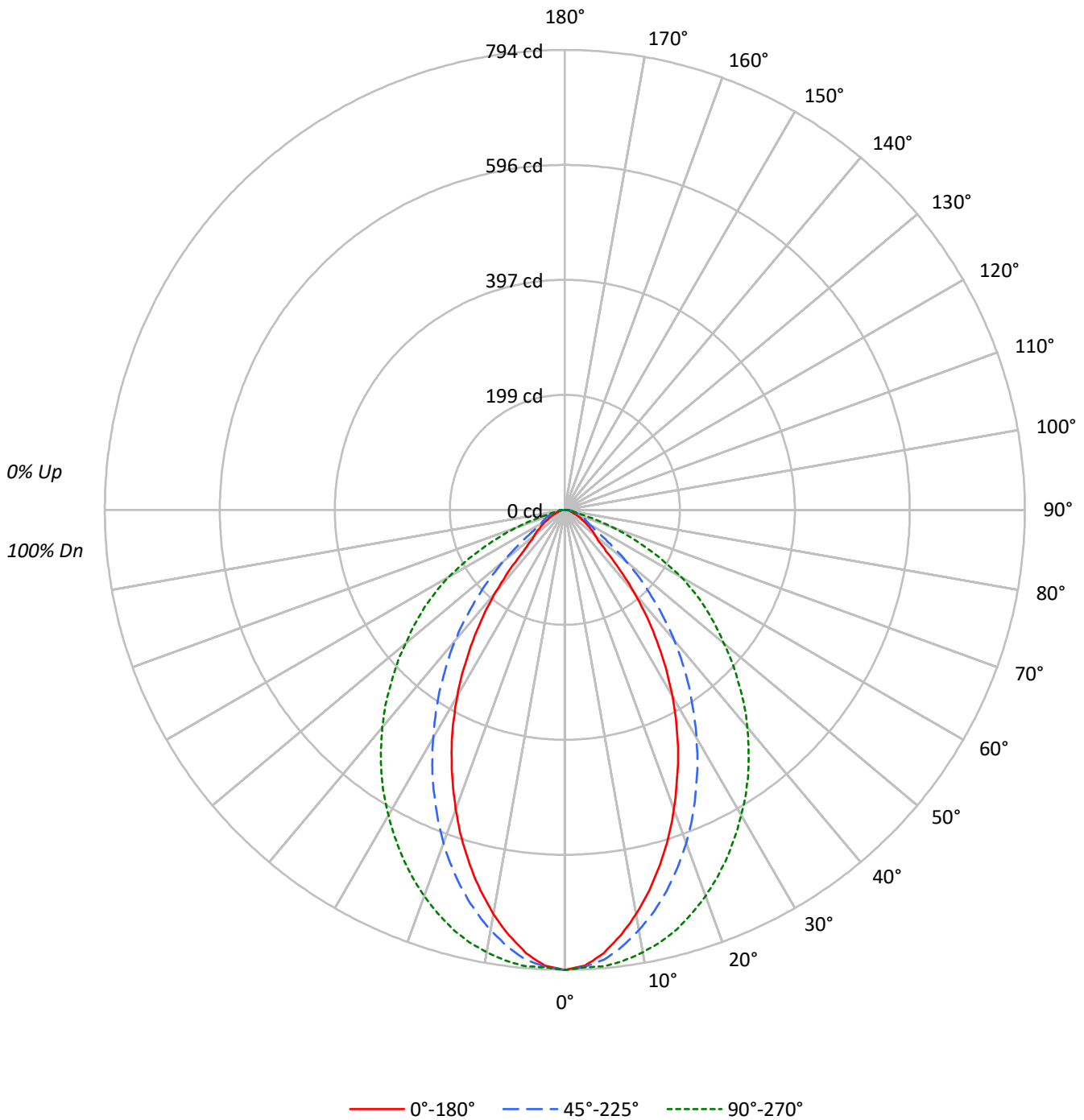
Lumens per Lamp: N/A
Luminaire Lumens: 1147.0 lumens
Efficiency: N/A
Efficacy: 48.8 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.15 / 1.02
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

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	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	97	92	87	101	95	91	86	92	88	84	89	86	83	86	83	81	79				79
3	96	88	81	76	94	87	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	63				63
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56				56
6	78	67	60	54	77	66	59	54	65	58	53	63	57	53	62	57	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	41	39				39
10	61	50	43	38	60	49	42	38	48	42	38	47	42	38	47	41	38	36				36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5470	5470	5470
5°	5308	5386	5464
10°	4954	5152	5422
15°	4521	4849	5340
20°	4032	4488	5199
25°	3515	4066	5032
30°	2952	3611	4839
35°	2328	3144	4641
40°	1668	2642	4404
45°	982	2074	4129
50°	726	1494	3836
55°	611	905	3563
60°	493	662	3180
65°	384	629	2548
70°	322	588	1725
75°	301	527	753
80°	297	523	484
85°	371	671	521

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4129 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.2	6.4
10°-20°	192.3	16.8
20°-30°	251.3	21.9
30°-40°	244.6	21.3
40°-50°	182.8	15.9
50°-60°	113.4	9.9
60°-70°	59.5	5.2
70°-80°	21.7	1.9
80°-90°	8.2	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°	516.7	45.1
0°-40°	761.4	66.4
0°-60°	1057.5	92.2
0°-90°	1147.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1147.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	794	794	794	794	794	
5°	768	778	779	784	791	71
15°	634	653	680	722	749	177
25°	463	486	535	608	662	211
35°	277	307	374	474	552	172
45°	101	132	213	333	424	85
55°	51	54	75	196	297	46
65°	24	25	39	83	156	25
75°	11	13	20	22	28	12
85°	5	8	8	8	7	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	794.4	794.4	794.4	794.4	794.4
2.5°	787.8	794.4	789.6	789.6	790.6
5°	768.0	778.3	779.3	784.0	790.6
7.5°	740.6	752.9	760.4	774.6	784.9
10°	708.6	722.7	736.9	760.4	775.5
12.5°	672.8	689.8	710.5	742.5	764.2
15°	634.2	653.0	680.3	721.8	749.1
17.5°	593.6	613.4	647.4	697.3	730.3
20°	550.3	572.0	612.5	669.0	709.5
22.5°	506.0	530.5	574.8	638.9	686.9
25°	462.7	486.2	535.2	607.8	662.4
27.5°	417.4	441.9	495.6	575.7	636.0
30°	371.3	397.6	454.2	542.8	608.7
32.5°	325.1	352.4	413.7	508.8	581.4
35°	277.0	307.2	374.1	474.0	552.2
37.5°	231.8	263.8	333.6	438.2	521.1
40°	185.6	218.6	294.0	403.3	490.0
42.5°	140.4	174.3	253.5	367.5	458.9
45°	100.8	131.9	213.0	332.6	424.0
47.5°	77.3	95.2	175.3	296.8	392.9
50°	67.8	73.5	139.5	262.0	358.1
52.5°	59.4	63.1	103.7	228.0	327.9
55°	50.9	53.7	75.4	196.0	296.8
57.5°	43.3	46.2	57.5	166.8	264.8
60°	35.8	38.6	48.1	137.6	230.9
62.5°	30.2	31.1	43.3	110.2	193.2
65°	23.6	25.4	38.6	82.9	156.4
67.5°	19.8	20.7	33.9	59.4	120.6
70°	16.0	17.0	29.2	41.5	85.7
72.5°	14.1	14.1	24.5	30.2	54.7
75°	11.3	13.2	19.8	21.7	28.3
77.5°	9.4	13.2	17.0	16.0	15.1
80°	7.5	12.2	13.2	13.2	12.2
82.5°	6.6	10.4	11.3	10.4	9.4
85°	4.7	8.5	8.5	8.5	6.6
87.5°	3.8	7.5	6.6	6.6	4.7
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	5.69	7.04	6.06	7.35	7.67	15.40	16.74	15.76	17.06	17.37
	3H	6.53	7.73	6.91	8.06	8.42	16.31	17.51	16.69	17.83	18.20
	4H	6.89	8.01	7.29	8.36	8.74	16.41	17.52	16.81	17.87	18.26
	6H	7.26	8.29	7.67	8.66	9.05	16.39	17.42	16.81	17.79	18.18
	8H	7.44	8.41	7.87	8.80	9.21	16.38	17.35	16.81	17.74	18.15
	12H	7.60	8.53	8.04	8.92	9.35	16.37	17.30	16.80	17.68	18.11
4H	2H	6.52	7.64	6.92	7.99	8.37	15.25	16.36	15.65	16.71	17.10
	3H	7.58	8.49	7.99	8.89	9.30	16.23	17.15	16.65	17.55	17.96
	4H	8.03	8.85	8.47	9.27	9.71	16.36	17.18	16.80	17.60	18.04
	6H	8.59	9.29	9.05	9.74	10.20	16.40	17.10	16.86	17.55	18.01
	8H	8.85	9.51	9.32	9.95	10.42	16.40	17.06	16.87	17.50	17.97
	12H	9.09	9.67	9.57	10.16	10.63	16.41	16.99	16.89	17.47	17.94
8H	4H	8.59	9.25	9.06	9.69	10.16	16.29	16.95	16.76	17.40	17.87
	6H	9.36	9.90	9.86	10.40	10.88	16.35	16.89	16.85	17.38	17.86
	8H	9.78	10.27	10.30	10.78	11.27	16.38	16.86	16.90	17.38	17.87
	12H	10.20	10.63	10.71	11.12	11.69	16.43	16.86	16.95	17.35	17.92
12H	4H	8.65	9.23	9.13	9.71	10.19	16.25	16.84	16.74	17.32	17.79
	6H	9.51	9.99	10.03	10.51	11.00	16.31	16.80	16.84	17.31	17.81
	8H	10.04	10.46	10.55	10.96	11.53	16.38	16.81	16.89	17.30	17.87