

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: P1062182

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062182
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-87)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDR-H850D840-X4F0-XX-UDD-BVL-S
Description: DEFINE 5 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

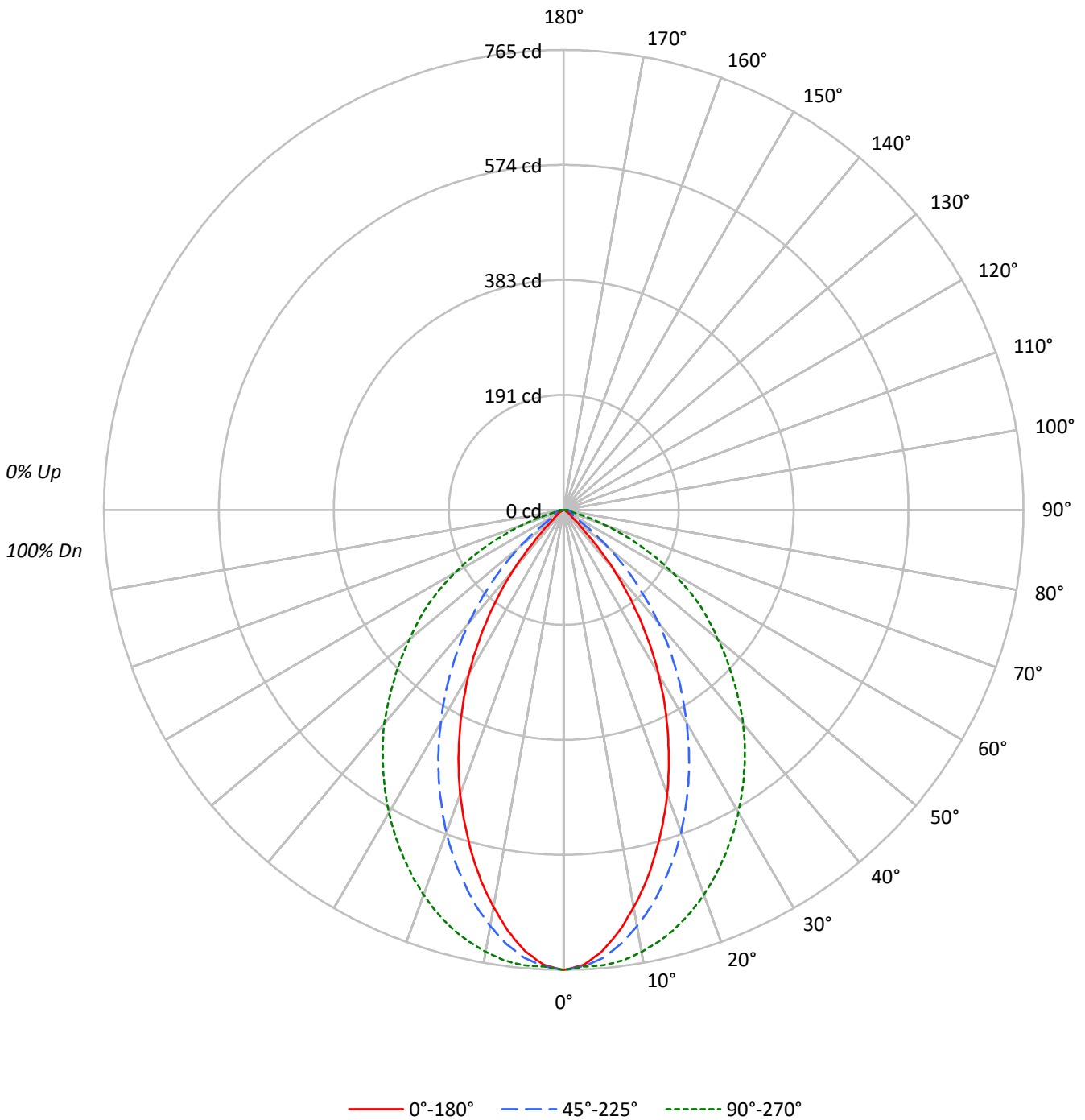
Lumens per Lamp: N/A
Luminaire Lumens: 984.3 lumens
Efficiency: N/A
Efficacy: 41.9 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.14 / 0.98
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81
3	98	90	83	78	95	88	82	78	85	80	76	83	79	75	80	77	74	72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65
5	85	75	68	63	84	74	67	62	72	66	62	70	65	61	69	64	61	59
6	80	69	62	57	78	68	62	57	67	61	56	65	60	56	64	59	55	54
7	75	64	57	52	74	63	56	52	62	56	51	61	55	51	59	54	51	49
8	71	60	52	47	69	59	52	47	58	52	47	57	51	47	55	50	47	45
9	67	55	48	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42
10	63	52	45	41	62	51	45	40	50	44	40	50	44	40	49	44	40	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5269	5269	5269
5°	5094	5172	5257
10°	4691	4916	5218
15°	4212	4575	5132
20°	3688	4185	4993
25°	3115	3738	4819
30°	2510	3252	4623
35°	1846	2741	4404
40°	1152	2211	4176
45°	431	1615	3882
50°	201	1009	3584
55°	148	419	3314
60°	103	220	2868
65°	62	261	2273
70°	56	304	1441
75°	74	301	452
80°	111	373	337
85°	221	592	450

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3882 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.2	7.1
10°-20°	181.7	18.5
20°-30°	231.4	23.5
30°-40°	215.4	21.9
40°-50°	147.6	15.0
50°-60°	81.3	8.3
60°-70°	38.5	3.9
70°-80°	12.1	1.2
80°-90°	6.2	0.6
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°	483.3	49.1
0°-40°	698.7	71.0
0°-60°	927.5	94.2
0°-90°	984.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	984.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	765	765	765	765	765	
5°	737	746	748	754	761	68
15°	591	610	642	690	720	165
25°	410	435	492	571	634	187
35°	220	251	326	434	524	136
45°	44	74	166	294	399	42
55°	12	14	35	164	276	11
65°	4	5	16	60	140	4
75°	3	5	11	12	17	3
85°	3	7	8	7	6	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	765.3	765.3	765.3	765.3	765.3
2.5°	757.7	765.3	759.6	759.6	760.6
5°	737.0	746.4	748.3	754.0	760.6
7.5°	706.8	719.1	728.5	744.5	755.8
10°	671.0	686.1	703.1	729.5	746.4
12.5°	633.3	649.3	674.8	711.5	735.1
15°	590.9	609.8	641.8	689.9	720.0
17.5°	547.6	568.3	607.9	664.4	702.1
20°	503.3	524.9	571.1	634.3	681.4
22.5°	457.1	480.6	531.5	603.2	658.8
25°	410.0	435.4	492.0	571.1	634.3
27.5°	362.8	389.2	451.4	538.1	608.8
30°	315.7	343.0	409.0	504.2	581.5
32.5°	267.7	297.8	367.6	470.3	553.2
35°	219.6	250.7	326.1	433.5	524.0
37.5°	172.5	204.5	285.6	398.7	494.8
40°	128.2	160.2	246.0	363.8	464.6
42.5°	82.9	116.9	204.5	328.0	431.6
45°	44.3	74.5	165.9	294.0	398.7
47.5°	23.6	39.6	129.1	260.1	367.6
50°	18.8	21.7	94.2	226.2	334.6
52.5°	15.1	17.0	60.3	191.3	305.4
55°	12.3	14.1	34.9	164.0	276.1
57.5°	9.4	11.3	19.8	136.7	242.2
60°	7.5	8.5	16.0	109.3	208.3
62.5°	4.7	6.6	16.0	84.8	174.4
65°	3.8	4.7	16.0	60.3	139.5
67.5°	3.8	3.8	16.0	39.6	104.6
70°	2.8	2.8	15.1	25.4	71.6
72.5°	2.8	2.8	13.2	17.0	41.5
75°	2.8	4.7	11.3	12.3	17.0
77.5°	2.8	7.5	10.4	10.4	9.4
80°	2.8	7.5	9.4	8.5	8.5
82.5°	2.8	7.5	7.5	7.5	6.6
85°	2.8	6.6	7.5	6.6	5.7
87.5°	2.8	6.6	6.6	6.6	3.8
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	14.82	16.11	15.19	16.42	16.73
	3H	0.00	0.00	0.00	0.00	0.00	15.61	16.74	15.99	17.07	17.44
	4H	0.00	0.00	0.00	0.00	0.00	15.63	16.69	16.04	17.04	17.43
	6H	0.00	0.00	0.00	0.00	0.22	15.59	16.56	16.00	16.93	17.33
	8H	0.00	0.07	0.00	0.47	0.87	15.57	16.49	16.00	16.88	17.28
	12H	0.00	0.78	0.33	1.16	1.59	15.55	16.43	15.98	16.81	17.24
4H	2H	0.00	0.00	0.00	0.00	0.39	14.60	15.66	15.01	16.01	16.40
	3H	0.00	0.33	0.00	0.73	1.14	15.43	16.29	15.84	16.70	17.10
	4H	0.06	0.83	0.49	1.25	1.69	15.47	16.24	15.90	16.66	17.10
	6H	1.54	2.21	2.01	2.65	3.12	15.45	16.12	15.92	16.56	17.03
	8H	2.28	2.90	2.75	3.35	3.82	15.44	16.06	15.91	16.50	16.98
	12H	3.02	3.57	3.51	4.05	4.52	15.44	15.99	15.93	16.47	16.94
8H	4H	2.11	2.73	2.58	3.17	3.64	15.35	15.97	15.82	16.42	16.89
	6H	3.84	4.34	4.34	4.84	5.32	15.35	15.86	15.86	16.36	16.84
	8H	4.78	5.24	5.31	5.75	6.25	15.36	15.81	15.88	16.33	16.82
	12H	5.72	6.12	6.23	6.61	7.19	15.41	15.81	15.92	16.30	16.87
12H	4H	2.41	2.95	2.89	3.44	3.91	15.31	15.86	15.80	16.34	16.81
	6H	4.30	4.75	4.82	5.27	5.76	15.31	15.76	15.83	16.28	16.77
	8H	5.42	5.82	5.94	6.32	6.89	15.35	15.75	15.86	16.24	16.82