

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: P1062227

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062227
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-H850D940-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, 90 CRI LEDS
Ballast/Driver: -

Summary

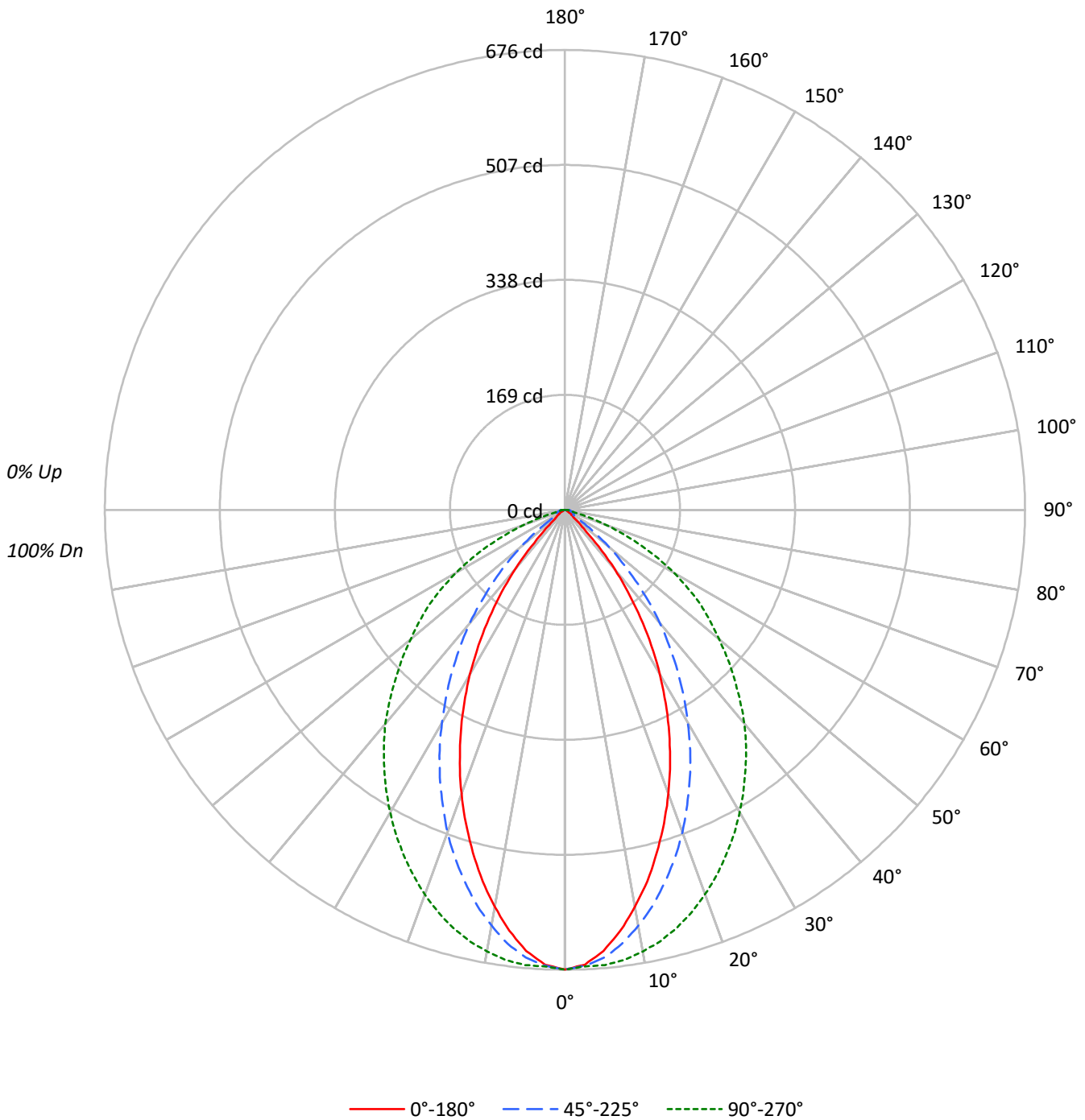
Lumens per Lamp: N/A
Luminaire Lumens: 869.1 lumens
Efficiency: N/A
Efficacy: 37.0 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.14 / 0.98
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

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	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°	4652	4652	4652
5°	4498	4566	4642
10°	4142	4340	4608
15°	3719	4040	4532
20°	3256	3695	4409
25°	2750	3300	4255
30°	2217	2872	4083
35°	1630	2420	3889
40°	1017	1952	3688
45°	381	1426	3427
50°	178	891	3164
55°	130	370	2927
60°	92	194	2532
65°	54	230	2007
70°	50	268	1272
75°	67	266	399
80°	99	329	297
85°	197	529	395

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3427 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.0	7.1
10°-20°	160.4	18.5
20°-30°	204.4	23.5
30°-40°	190.2	21.9
40°-50°	130.3	15.0
50°-60°	71.8	8.3
60°-70°	34.0	3.9
70°-80°	10.7	1.2
80°-90°	5.5	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°	426.7	49.1
0°-40°	616.9	71.0
0°-60°	819.0	94.2
0°-90°	869.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	869.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	676	676	676	676	676	
5°	651	659	661	666	672	60
15°	522	538	567	609	636	145
25°	362	384	434	504	560	165
35°	194	221	288	383	463	120
45°	39	66	146	260	352	37
55°	11	12	31	145	244	10
65°	3	4	14	53	123	4
75°	2	4	10	11	15	3
85°	2	6	7	6	5	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	675.7	675.7	675.7	675.7	675.7
2.5°	669.1	675.7	670.7	670.7	671.6
5°	650.8	659.1	660.7	665.7	671.6
7.5°	624.1	635.0	643.3	657.4	667.4
10°	592.5	605.8	620.8	644.1	659.1
12.5°	559.2	573.4	595.8	628.3	649.1
15°	521.8	538.4	566.7	609.2	635.8
17.5°	483.5	501.8	536.8	586.7	620.0
20°	444.4	463.5	504.3	560.1	601.7
22.5°	403.6	424.4	469.3	532.6	581.7
25°	362.0	384.5	434.4	504.3	560.1
27.5°	320.4	343.7	398.6	475.2	537.6
30°	278.8	302.9	361.2	445.2	513.5
32.5°	236.3	263.0	324.5	415.3	488.5
35°	193.9	221.4	287.9	382.8	462.7
37.5°	152.3	180.6	252.1	352.0	436.9
40°	113.2	141.5	217.2	321.2	410.3
42.5°	73.2	103.2	180.6	289.6	381.1
45°	39.1	65.7	146.5	259.6	352.0
47.5°	20.8	35.0	114.0	229.7	324.5
50°	16.6	19.1	83.2	199.7	295.4
52.5°	13.3	15.0	53.3	168.9	269.6
55°	10.8	12.5	30.8	144.8	243.8
57.5°	8.3	10.0	17.5	120.7	213.9
60°	6.7	7.5	14.1	96.5	183.9
62.5°	4.2	5.8	14.1	74.9	154.0
65°	3.3	4.2	14.1	53.3	123.2
67.5°	3.3	3.3	14.1	35.0	92.4
70°	2.5	2.5	13.3	22.5	63.2
72.5°	2.5	2.5	11.7	15.0	36.6
75°	2.5	4.2	10.0	10.8	15.0
77.5°	2.5	6.7	9.2	9.2	8.3
80°	2.5	6.7	8.3	7.5	7.5
82.5°	2.5	6.7	6.7	6.7	5.8
85°	2.5	5.8	6.7	5.8	5.0
87.5°	2.5	5.8	5.8	5.8	3.3
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	14.39	15.67	14.75	15.99	16.30
	3H	0.00	0.00	0.00	0.00	0.00	15.18	16.31	15.56	16.64	17.01
	4H	0.00	0.00	0.00	0.00	0.00	15.20	16.26	15.60	16.61	16.99
	6H	0.00	0.00	0.00	0.00	0.00	15.16	16.13	15.57	16.50	16.89
	8H	0.00	0.00	0.00	0.08	0.48	15.13	16.05	15.57	16.44	16.85
	12H	0.00	0.39	0.00	0.77	1.20	15.12	15.99	15.55	16.38	16.81
4H	2H	0.00	0.00	0.00	0.00	0.00	14.17	15.23	14.57	15.58	15.96
	3H	0.00	0.00	0.00	0.30	0.70	15.00	15.86	15.41	16.27	16.67
	4H	0.00	0.41	0.08	0.83	1.27	15.03	15.80	15.47	16.22	16.67
	6H	1.15	1.81	1.61	2.26	2.73	15.02	15.69	15.49	16.13	16.60
	8H	1.89	2.51	2.36	2.96	3.43	15.00	15.62	15.47	16.07	16.54
	12H	2.63	3.18	3.12	3.66	4.14	15.01	15.55	15.49	16.04	16.51
8H	4H	1.69	2.31	2.16	2.75	3.23	14.92	15.54	15.39	15.99	16.46
	6H	3.44	3.95	3.95	4.44	4.93	14.92	15.43	15.42	15.92	16.41
	8H	4.40	4.85	4.92	5.37	5.86	14.93	15.38	15.45	15.90	16.39
	12H	5.33	5.73	5.84	6.22	6.79	14.97	15.37	15.49	15.87	16.44
12H	4H	1.99	2.54	2.48	3.02	3.49	14.88	15.42	15.36	15.91	16.38
	6H	3.90	4.35	4.42	4.87	5.36	14.88	15.33	15.40	15.85	16.34
	8H	5.04	5.44	5.55	5.93	6.51	14.92	15.32	15.43	15.81	16.38