

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: P1062111

Luminaire Tested: S125RDR-H610D850-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062111
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-84)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDR-H610D850-X4F0-XX-UDD-BVL-W
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

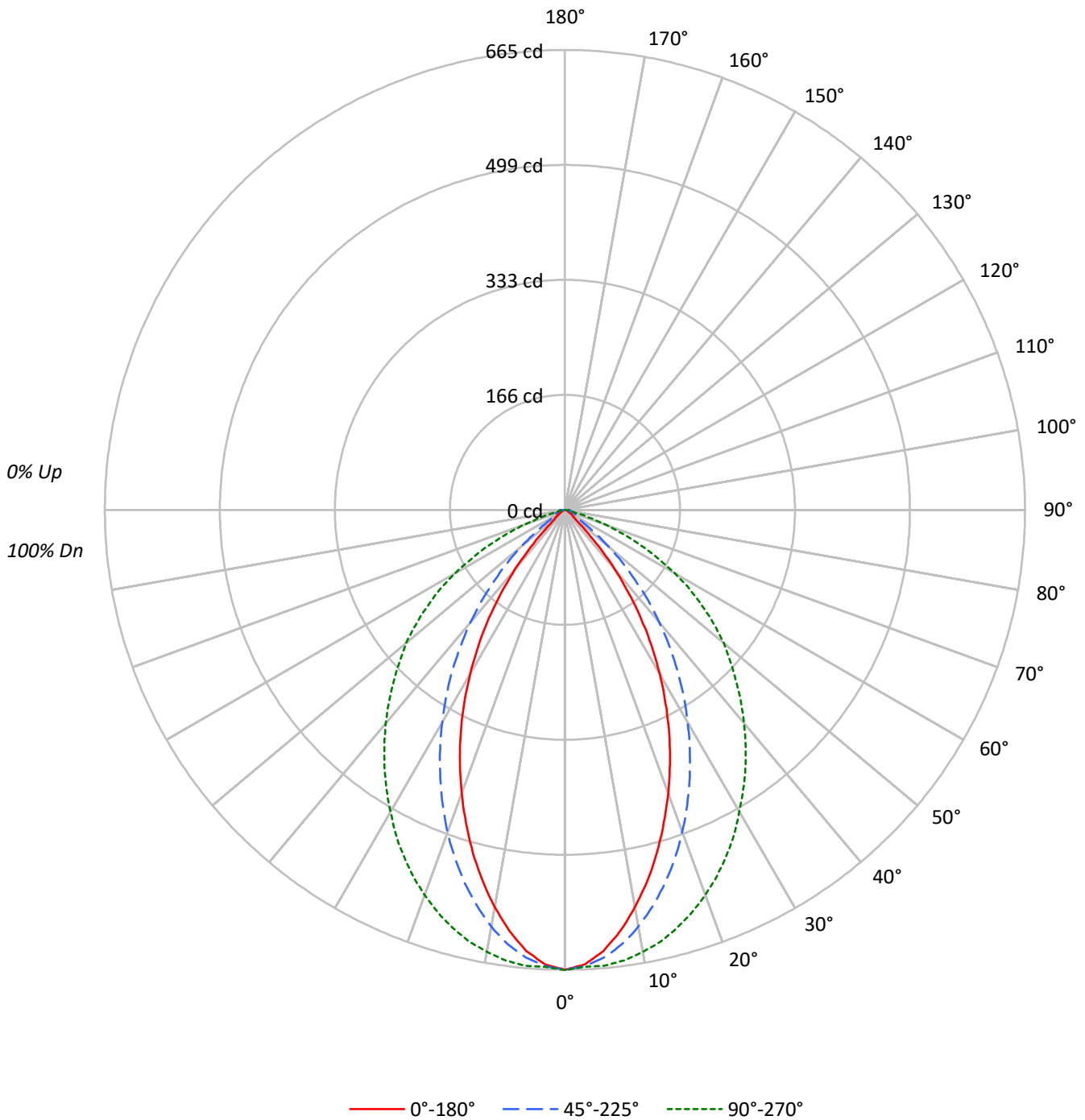
Lumens per Lamp: N/A
Luminaire Lumens: 860.7 lumens
Efficiency: N/A
Efficacy: 49.5 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.14 / 0.98
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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				
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				
2	104	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80				
3	98	89	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	67	74	70	67	65				
5	85	75	68	63	83	74	67	62	72	66	62	70	65	61	69	64	60	59				
6	80	69	62	57	78	68	61	56	67	60	56	65	60	56	64	59	55	53				
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49				
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	46	45				
9	67	55	48	44	65	55	48	44	54	48	43	53	47	43	52	47	43	41				
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	44	40	38				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4580	4580	4580
5°	4424	4490	4572
10°	4077	4279	4537
15°	3662	3983	4462
20°	3195	3634	4344
25°	2707	3240	4194
30°	2174	2821	4008
35°	1609	2380	3821
40°	997	1900	3620
45°	389	1389	3404
50°	182	871	3206
55°	133	372	2910
60°	92	264	2524
65°	60	277	1963
70°	60	254	1234
75°	80	255	394
80°	119	293	266
85°	174	585	411

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3404 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.0	7.1
10°-20°	158.1	18.4
20°-30°	201.3	23.4
30°-40°	187.4	21.8
40°-50°	129.0	15.0
50°-60°	73.0	8.5
60°-70°	34.5	4.0
70°-80°	10.8	1.3
80°-90°	5.6	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°	420.4	48.8
0°-40°	607.8	70.6
0°-60°	809.7	94.1
0°-90°	860.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	860.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	665	665	665	665	665	
5°	640	649	650	656	662	59
15°	514	531	559	601	626	143
25°	356	379	426	498	552	162
35°	191	218	283	380	455	118
45°	40	64	143	258	350	38
55°	11	13	31	149	242	10
65°	4	4	17	53	120	4
75°	3	7	10	10	15	3
85°	2	6	7	7	5	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	665.2	665.2	665.2	665.2	665.2
2.5°	657.8	664.5	660.0	660.8	661.5
5°	640.1	648.9	649.7	655.6	661.5
7.5°	614.2	625.3	633.4	647.5	657.1
10°	583.2	596.5	612.0	634.9	648.9
12.5°	549.9	565.4	586.9	619.4	639.3
15°	513.7	530.7	558.8	600.9	626.0
17.5°	475.2	494.5	528.5	578.7	610.5
20°	436.1	456.8	495.9	553.6	592.8
22.5°	396.9	418.3	461.9	526.2	573.5
25°	356.3	379.2	426.5	498.2	552.1
27.5°	314.9	338.5	391.0	469.3	529.2
30°	273.5	298.6	354.8	439.8	504.1
32.5°	232.8	257.9	319.3	410.2	479.7
35°	191.4	218.0	283.1	379.9	454.6
37.5°	150.0	178.9	247.6	348.9	428.7
40°	110.9	138.2	211.4	318.6	402.8
42.5°	73.9	100.5	178.9	288.3	376.2
45°	39.9	63.6	142.6	257.9	349.6
47.5°	21.4	34.0	111.6	228.4	323.7
50°	17.0	19.2	81.3	201.0	299.3
52.5°	14.0	15.5	53.2	175.2	271.3
55°	11.1	12.6	31.0	148.6	242.4
57.5°	8.9	10.3	20.0	123.4	214.3
60°	6.7	8.1	19.2	99.0	183.3
62.5°	5.2	5.9	17.7	76.1	150.8
65°	3.7	4.4	17.0	53.2	120.5
67.5°	3.0	3.7	15.5	34.0	90.2
70°	3.0	3.0	12.6	22.2	61.3
72.5°	3.0	5.2	11.1	14.8	37.0
75°	3.0	6.7	9.6	10.3	14.8
77.5°	3.0	7.4	8.1	8.1	8.1
80°	3.0	6.7	7.4	7.4	6.7
82.5°	3.0	5.9	6.7	7.4	5.9
85°	2.2	5.9	7.4	6.7	5.2
87.5°	2.2	5.9	6.7	5.9	3.7
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	0.00	0.00	0.00	0.00	0.00	14.53	15.82	14.90	16.13	16.45
	3H	0.00	0.00	0.00	0.00	0.00	15.25	16.39	15.63	16.72	17.09
	4H	0.00	0.00	0.00	0.00	0.00	15.27	16.34	15.68	16.69	17.07
	6H	0.00	0.00	0.00	0.24	0.64	15.22	16.20	15.64	16.57	16.97
	8H	0.00	0.47	0.00	0.86	1.27	15.20	16.12	15.63	16.52	16.92
	12H	0.13	1.01	0.56	1.40	1.83	15.19	16.07	15.62	16.45	16.88
4H	2H	0.00	0.09	0.00	0.45	0.83	14.32	15.38	14.72	15.74	16.12
	3H	0.00	0.72	0.27	1.13	1.53	15.08	15.95	15.49	16.35	16.75
	4H	0.88	1.65	1.31	2.07	2.52	15.11	15.88	15.54	16.30	16.75
	6H	2.17	2.84	2.63	3.28	3.75	15.09	15.75	15.55	16.20	16.67
	8H	2.75	3.38	3.22	3.82	4.29	15.07	15.69	15.54	16.14	16.61
	12H	3.31	3.86	3.80	4.34	4.82	15.08	15.63	15.56	16.11	16.59
8H	4H	2.29	2.91	2.76	3.36	3.83	14.99	15.61	15.46	16.06	16.53
	6H	3.86	4.37	4.36	4.86	5.35	14.98	15.49	15.48	15.99	16.47
	8H	4.65	5.11	5.18	5.62	6.12	14.99	15.45	15.51	15.96	16.46
	12H	5.48	5.89	6.00	6.38	6.96	15.05	15.46	15.57	15.95	16.52
12H	4H	2.51	3.06	2.99	3.54	4.01	14.95	15.50	15.43	15.98	16.46
	6H	4.23	4.69	4.75	5.20	5.69	14.93	15.39	15.46	15.91	16.40
	8H	5.22	5.62	5.73	6.12	6.69	14.98	15.38	15.50	15.88	16.45