

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: P1062192

Luminaire Tested: S125RDR-H850D850-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062192
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-H850D850-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

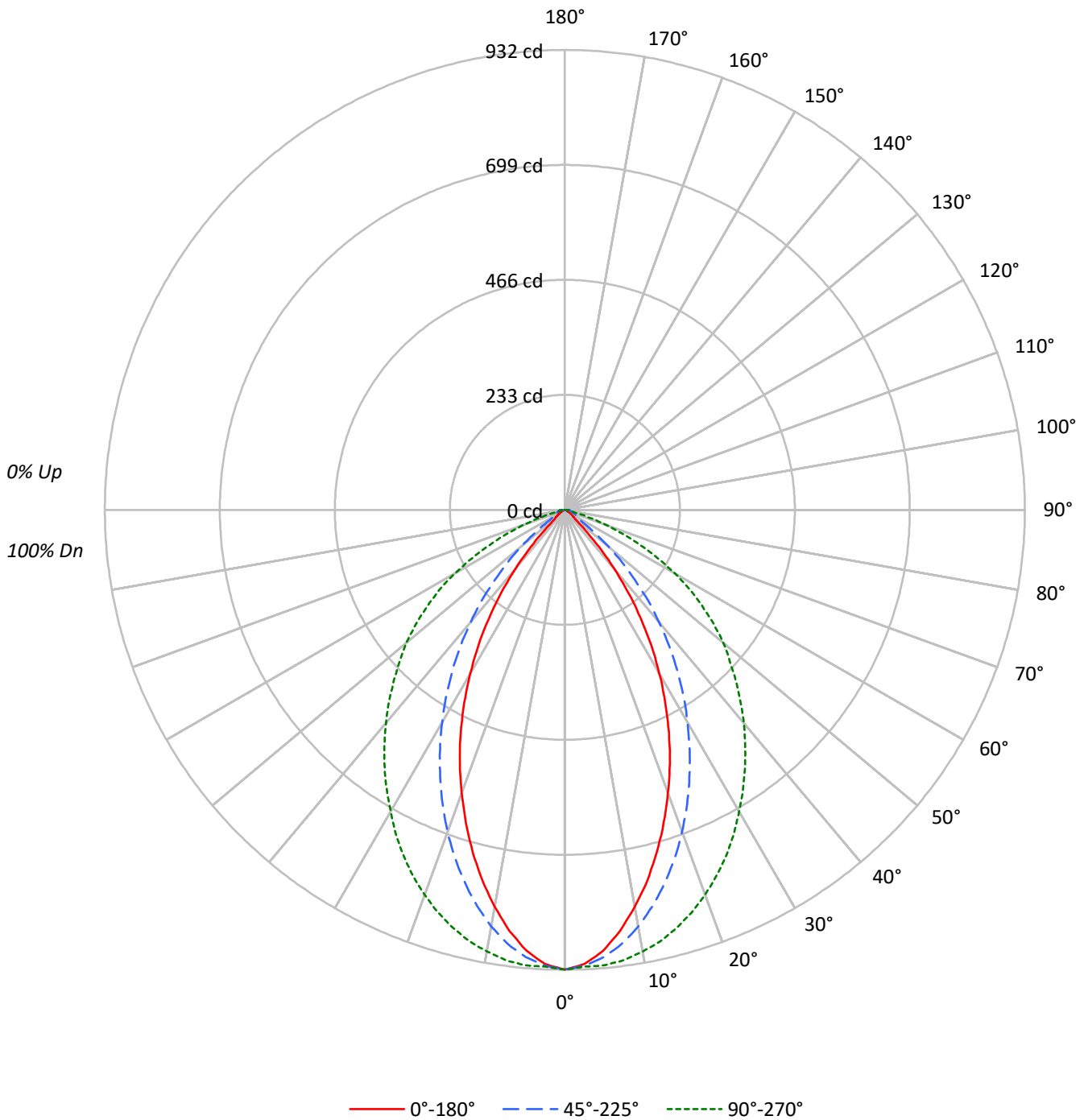
Lumens per Lamp: N/A
Luminaire Lumens: 1205.3 lumens
Efficiency: N/A
Efficacy: 51.3 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.14 / 0.98
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1062192

CATALOG NUMBER: S125RDR-H850D850-X4F0-XX-UDD-BVL-W

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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90			90	
2	104	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80			80	
3	98	89	83	78	95	88	82	78	85	80	76	83	79	75	80	77	74	72			72	
4	91	82	75	70	89	81	74	69	78	73	68	76	71	67	74	70	67	65			65	
5	85	75	68	63	83	74	67	62	72	66	62	70	65	61	69	64	60	59			59	
6	80	69	62	57	78	68	61	56	67	60	56	65	60	56	64	59	55	53			53	
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49			49	
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	46	45			45	
9	67	55	48	44	65	55	48	44	54	48	43	53	47	43	52	47	43	41			41	
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	44	40	38			38	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6414	6414	6414
5°	6196	6289	6403
10°	5710	5992	6354
15°	5128	5578	6249
20°	4475	5089	6083
25°	3790	4538	5874
30°	3045	3951	5612
35°	2253	3332	5351
40°	1396	2660	5070
45°	544	1945	4767
50°	255	1220	4490
55°	186	522	4075
60°	128	370	3535
65°	85	388	2748
70°	83	354	1729
75°	109	359	551
80°	163	412	369
85°	245	822	569

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4767 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.4	7.1
10°-20°	221.4	18.4
20°-30°	281.9	23.4
30°-40°	262.4	21.8
40°-50°	180.6	15.0
50°-60°	102.3	8.5
60°-70°	48.3	4.0
70°-80°	15.1	1.3
80°-90°	7.9	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°	588.7	48.8
0°-40°	851.1	70.6
0°-60°	1134.0	94.1
0°-90°	1205.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1205.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	932	932	932	932	932	
5°	896	909	910	918	926	83
15°	719	743	782	842	877	200
25°	499	531	597	698	773	227
35°	268	305	396	532	637	166
45°	56	89	200	361	490	53
55°	16	18	44	208	340	14
65°	5	6	24	74	169	6
75°	4	9	14	14	21	4
85°	3	8	10	9	7	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	931.6	931.6	931.6	931.6	931.6
2.5°	921.3	930.6	924.4	925.4	926.4
5°	896.4	908.8	909.9	918.1	926.4
7.5°	860.2	875.7	887.1	906.8	920.2
10°	816.7	835.3	857.1	889.2	908.8
12.5°	770.1	791.9	821.9	867.4	895.4
15°	719.4	743.2	782.5	841.5	876.7
17.5°	665.6	692.5	740.1	810.5	855.0
20°	610.7	639.7	694.6	775.3	830.2
22.5°	555.9	585.9	646.9	737.0	803.2
25°	498.9	531.0	597.3	697.7	773.2
27.5°	441.0	474.1	547.6	657.3	741.1
30°	383.0	418.2	496.9	615.9	705.9
32.5°	326.1	361.3	447.2	574.5	671.8
35°	268.1	305.4	396.4	532.0	636.6
37.5°	210.1	250.5	346.8	488.6	600.4
40°	155.3	193.6	296.0	446.1	564.1
42.5°	103.5	140.8	250.5	403.7	526.9
45°	55.9	89.0	199.8	361.3	489.6
47.5°	30.0	47.6	156.3	319.9	453.4
50°	23.8	26.9	113.9	281.6	419.2
52.5°	19.7	21.7	74.5	245.3	379.9
55°	15.5	17.6	43.5	208.1	339.5
57.5°	12.4	14.5	27.9	172.9	300.2
60°	9.3	11.4	26.9	138.7	256.7
62.5°	7.2	8.3	24.8	106.6	211.2
65°	5.2	6.2	23.8	74.5	168.7
67.5°	4.1	5.2	21.7	47.6	126.3
70°	4.1	4.1	17.6	31.1	85.9
72.5°	4.1	7.2	15.5	20.7	51.8
75°	4.1	9.3	13.5	14.5	20.7
77.5°	4.1	10.4	11.4	11.4	11.4
80°	4.1	9.3	10.4	10.4	9.3
82.5°	4.1	8.3	9.3	10.4	8.3
85°	3.1	8.3	10.4	9.3	7.2
87.5°	3.1	8.3	9.3	8.3	5.2
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	15.70	16.99	16.07	17.31	17.62
	3H	0.00	0.00	0.00	0.00	0.00	16.42	17.57	16.80	17.90	18.26
	4H	0.00	0.00	0.00	0.18	0.56	16.45	17.51	16.85	17.86	18.24
	6H	0.02	0.99	0.43	1.37	1.76	16.40	17.37	16.81	17.74	18.14
	8H	0.66	1.58	1.09	1.97	2.38	16.37	17.30	16.80	17.69	18.09
	12H	1.25	2.13	1.68	2.51	2.94	16.36	17.24	16.79	17.62	18.05
4H	2H	0.21	1.27	0.61	1.62	2.01	15.49	16.56	15.90	16.91	17.29
	3H	1.02	1.88	1.43	2.29	2.69	16.25	17.12	16.66	17.52	17.93
	4H	2.02	2.80	2.46	3.22	3.66	16.28	17.05	16.72	17.47	17.92
	6H	3.30	3.97	3.77	4.42	4.88	16.26	16.93	16.72	17.37	17.84
	8H	3.88	4.50	4.35	4.95	5.42	16.24	16.87	16.71	17.31	17.78
	12H	4.44	4.99	4.93	5.48	5.95	16.25	16.80	16.74	17.28	17.76
8H	4H	3.45	4.07	3.92	4.52	4.99	16.16	16.79	16.63	17.23	17.71
	6H	5.01	5.52	5.51	6.01	6.49	16.15	16.66	16.66	17.16	17.64
	8H	5.80	6.26	6.32	6.77	7.27	16.17	16.62	16.69	17.14	17.63
	12H	6.64	7.04	7.16	7.54	8.11	16.23	16.63	16.74	17.12	17.70
12H	4H	3.67	4.22	4.16	4.70	5.18	16.12	16.67	16.61	17.15	17.63
	6H	5.38	5.84	5.90	6.35	6.85	16.11	16.56	16.63	17.08	17.57
	8H	6.37	6.77	6.89	7.27	7.84	16.15	16.56	16.67	17.05	17.63