

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: P1058466

Luminaire Tested: S122RDR-H675D850-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058466
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H675D850-X4F0-XX-UDD-BVL-W
Description: DEFINE 2 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

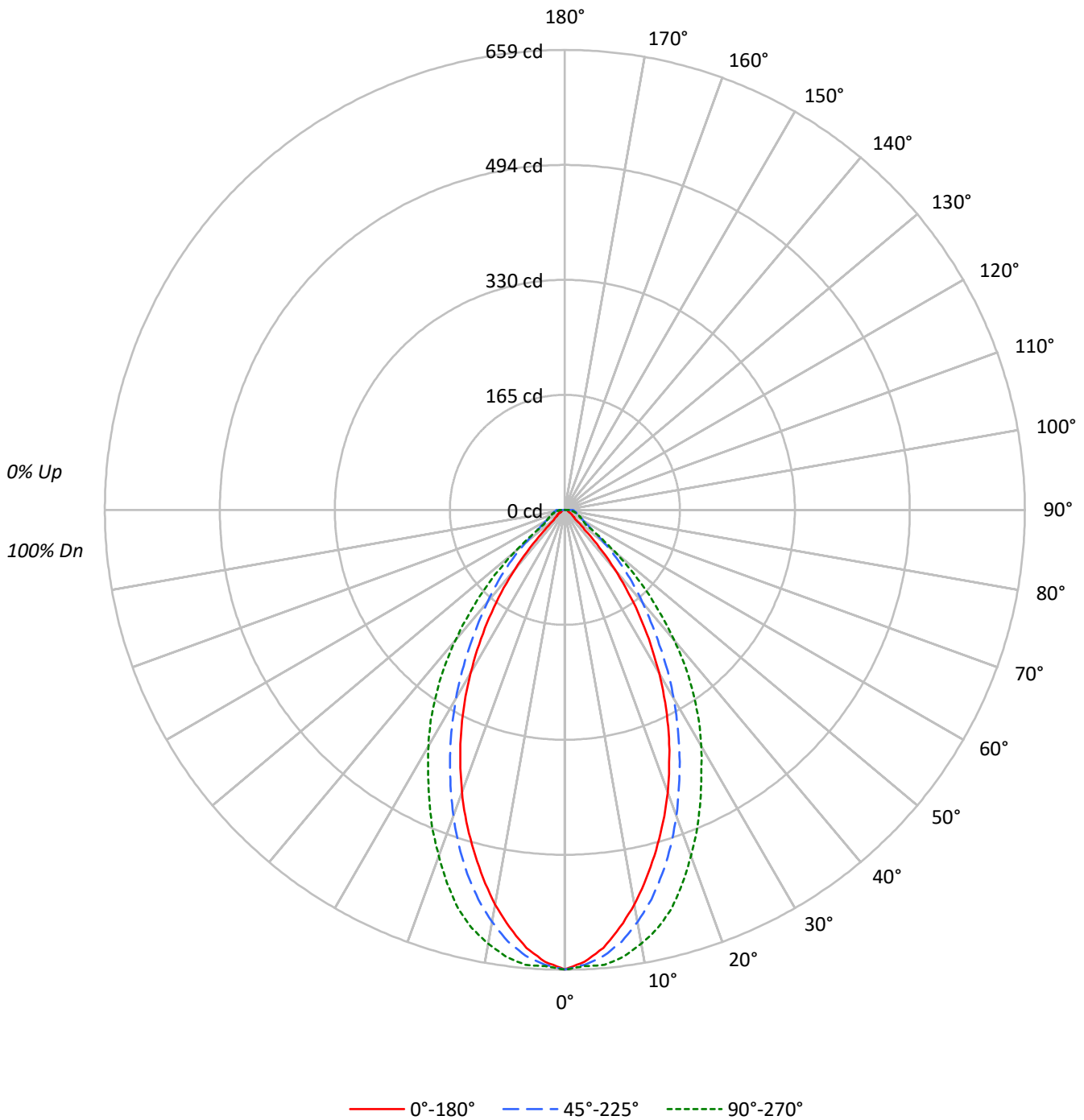
Lumens per Lamp: N/A
Luminaire Lumens: 716.8 lumens
Efficiency: N/A
Efficacy: 30.5 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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									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	97	98	96	95	95	93	92	90																												
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81																												
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	74																												
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67																												
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61																												
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56																												
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52																												
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48																												
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45																												
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12153	12153	12153
5°	11671	11886	12121
10°	10761	11235	11827
15°	9641	10306	11292
20°	8463	9166	10366
25°	7167	7916	9353
30°	5749	6646	8329
35°	4248	5316	7215
40°	2664	4162	5863
45°	1044	3134	4345
50°	514	2119	2661
55°	405	1390	1187
60°	310	1129	1089
65°	231	1057	1057
70°	286	1079	1079
75°	299	1205	1126
80°	446	1573	1233
85°	889	2668	1778

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 4907 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.1	8.4
10°-20°	152.1	21.2
20°-30°	181.9	25.4
30°-40°	153.1	21.4
40°-50°	87.2	12.2
50°-60°	34.4	4.8
60°-70°	21.6	3.0
70°-80°	16.1	2.2
80°-90°	10.2	1.4
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°	394.2	55.0
0°-40°	547.3	76.3
0°-60°	668.8	93.3
0°-90°	716.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	716.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	659	659	659	659	659	
5°	630	644	642	649	654	58
15°	505	523	540	571	591	141
25°	352	368	389	429	459	160
35°	189	206	236	287	320	117
45°	40	71	120	151	166	38
55°	13	27	43	44	37	11
65°	5	24	24	23	24	6
75°	4	17	17	16	16	5
85°	4	12	13	12	8	4
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	658.6	658.6	658.6	658.6	658.6
2.5°	648.1	659.6	652.3	653.3	654.4
5°	630.1	643.8	641.7	649.1	654.4
7.5°	603.8	618.5	623.8	636.5	645.9
10°	574.3	591.1	599.6	619.6	631.2
12.5°	540.6	559.5	572.2	597.5	614.3
15°	504.7	522.7	539.5	571.1	591.1
17.5°	468.9	486.8	504.7	539.5	560.6
20°	431.0	447.8	466.8	503.7	527.9
22.5°	390.9	408.9	427.8	465.8	495.3
25°	352.0	367.8	388.8	428.9	459.4
27.5°	310.9	326.7	349.8	390.9	423.6
30°	269.8	285.6	311.9	354.1	390.9
32.5°	228.7	245.5	274.0	320.3	357.2
35°	188.6	205.5	236.0	286.6	320.3
37.5°	149.6	168.6	202.3	251.8	283.5
40°	110.6	132.8	172.8	217.1	243.4
42.5°	73.8	101.2	145.4	182.3	204.4
45°	40.0	70.6	120.1	150.7	166.5
47.5°	22.1	45.3	95.9	120.1	129.6
50°	17.9	31.6	73.8	91.7	92.7
52.5°	14.8	28.5	54.8	65.3	60.1
55°	12.6	27.4	43.2	44.3	36.9
57.5°	10.5	26.3	35.8	31.6	31.6
60°	8.4	26.3	30.6	28.5	29.5
62.5°	6.3	26.3	27.4	25.3	26.3
65°	5.3	24.2	24.2	23.2	24.2
67.5°	5.3	22.1	22.1	21.1	22.1
70°	5.3	21.1	20.0	20.0	20.0
72.5°	4.2	19.0	19.0	17.9	17.9
75°	4.2	16.9	16.9	15.8	15.8
77.5°	4.2	15.8	15.8	14.8	13.7
80°	4.2	13.7	14.8	13.7	11.6
82.5°	4.2	12.6	13.7	12.6	9.5
85°	4.2	11.6	12.6	11.6	8.4
87.5°	3.2	11.6	11.6	9.5	6.3
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	6.36	7.58	6.72	7.89	8.21	8.39	9.61	8.76	9.92	10.24
	3H	7.91	8.99	8.29	9.32	9.69	10.36	11.45	10.74	11.78	12.15
	4H	8.46	9.48	8.87	9.83	10.21	11.28	12.29	11.68	12.64	13.03
	6H	9.02	9.95	9.44	10.32	10.72	12.16	13.09	12.58	13.47	13.86
	8H	9.31	10.19	9.74	10.58	10.99	12.57	13.45	13.00	13.84	14.25
	12H	9.67	10.51	10.10	10.90	11.33	13.01	13.85	13.44	14.23	14.66
4H	2H	7.54	8.56	7.95	8.91	9.29	9.01	10.02	9.41	10.37	10.76
	3H	9.75	10.59	10.17	10.99	11.40	11.25	12.09	11.67	12.49	12.90
	4H	10.81	11.56	11.25	11.98	12.42	12.33	13.07	12.76	13.49	13.94
	6H	11.70	12.35	12.17	12.80	13.27	13.44	14.09	13.90	14.53	15.00
	8H	12.09	12.69	12.56	13.14	13.61	13.96	14.57	14.43	15.02	15.49
	12H	12.51	13.04	12.99	13.52	14.00	14.54	15.07	15.02	15.56	16.03
8H	4H	11.61	12.22	12.08	12.67	13.14	12.82	13.43	13.29	13.87	14.35
	6H	12.99	13.49	13.50	13.99	14.47	14.22	14.72	14.72	15.21	15.70
	8H	13.71	14.15	14.23	14.67	15.16	14.96	15.40	15.48	15.92	16.41
	12H	14.46	14.85	14.97	15.35	15.92	15.79	16.18	16.30	16.68	17.25
12H	4H	11.78	12.31	12.26	12.79	13.27	12.92	13.46	13.41	13.94	14.41
	6H	13.32	13.77	13.85	14.29	14.78	14.44	14.88	14.96	15.40	15.89
	8H	14.24	14.63	14.75	15.13	15.70	15.32	15.71	15.84	16.21	16.78