

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: P1058515

Luminaire Tested: S122RDR-H675D950-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058515
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H675D950-X4F0-XX-UDD-WVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

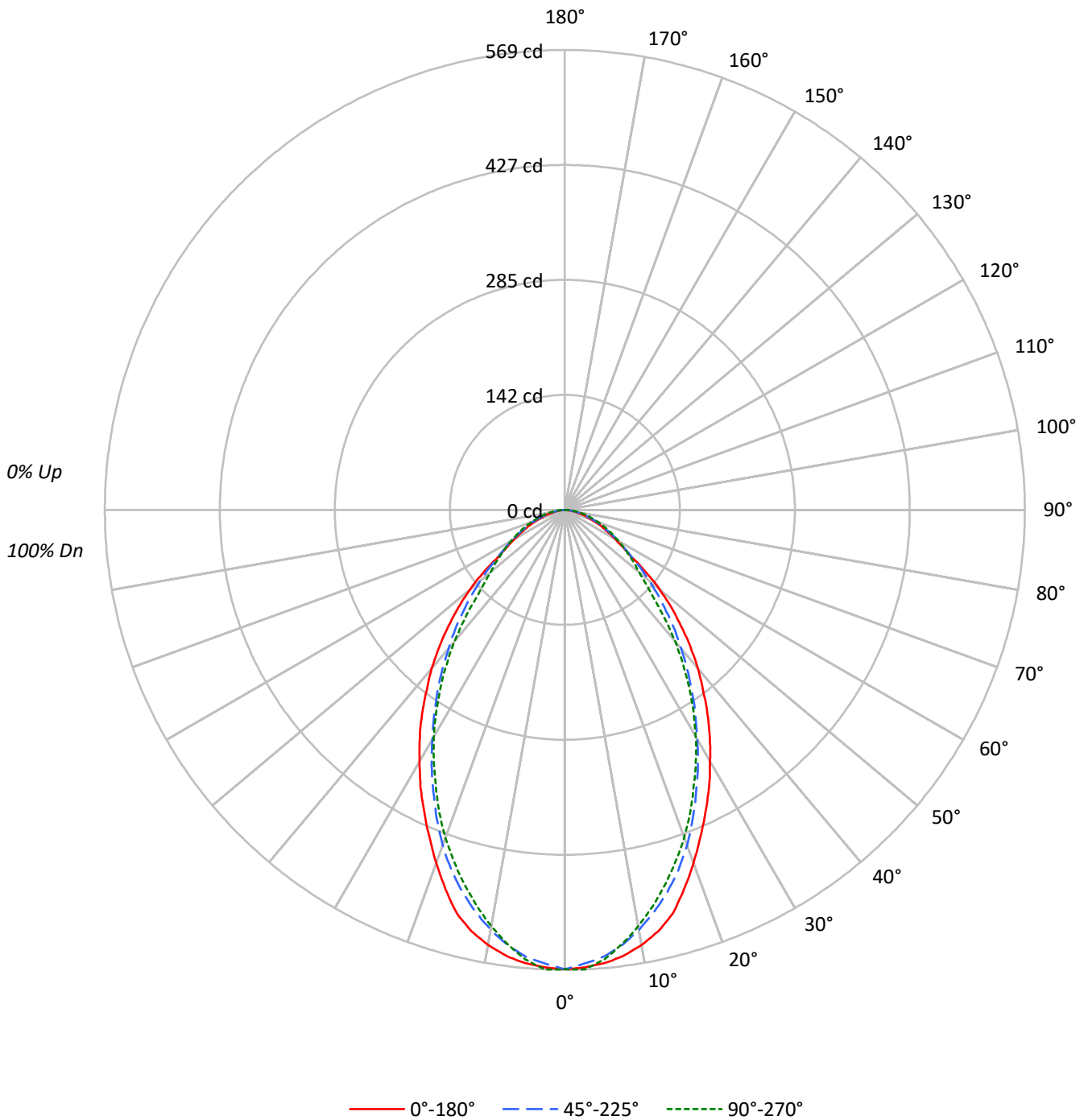
Lumens per Lamp: N/A
Luminaire Lumens: 863.2 lumens
Efficiency: N/A
Efficacy: 36.7 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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										
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	0														
RCR																																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100						100														
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88						88														
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77						77														
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68						68														
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61						61														
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54						54														
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49						49														
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44						44														
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41						41														
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37						37														
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34						34														

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10487	10487	10487
5°	10427	10277	10343
10°	10242	9886	9801
15°	9873	9353	9164
20°	9135	8672	8477
25°	8384	7830	7684
30°	7656	6980	6903
35°	6931	6177	6035
40°	6169	5384	5102
45°	5313	4629	4087
50°	4389	3898	3430
55°	3172	3233	3085
60°	2639	2772	2805
65°	2253	2410	2567
70°	1856	2147	2341
75°	1547	1804	2132
80°	1158	1445	1923
85°	381	762	1715

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5313 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.5	6.1
10°-20°	138.4	16.0
20°-30°	179.1	20.7
30°-40°	175.6	20.3
40°-50°	138.3	16.0
50°-60°	90.6	10.5
60°-70°	55.2	6.4
70°-80°	27.6	3.2
80°-90°	5.9	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°	369.9	42.9
0°-40°	545.5	63.2
0°-60°	774.5	89.7
0°-90°	863.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	863.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	568	568	568	568	568	
5°	563	563	555	558	558	53
15°	517	510	490	483	480	144
25°	412	398	385	383	377	189
35°	308	290	274	273	268	192
45°	204	191	177	165	157	157
55°	99	104	100	97	96	94
65°	52	52	55	58	59	51
75°	22	23	25	29	30	23
85°	2	3	4	6	8	4
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	568.3	568.3	568.3	568.3	568.3
2.5°	566.5	567.4	562.0	567.4	569.2
5°	562.9	562.9	554.8	558.4	558.4
7.5°	556.6	555.7	543.0	543.0	542.1
10°	546.6	543.0	527.6	524.9	523.1
12.5°	534.0	527.6	509.5	505.0	502.3
15°	516.8	509.5	489.6	483.3	479.7
17.5°	491.4	484.2	467.0	459.7	456.1
20°	465.2	454.3	441.6	435.3	431.7
22.5°	438.0	425.4	413.6	409.1	405.4
25°	411.8	398.2	384.6	382.8	377.4
27.5°	386.4	370.1	356.6	355.7	351.1
30°	359.3	342.1	327.6	328.5	324.0
32.5°	333.9	317.7	300.5	301.4	295.9
35°	307.7	290.5	274.2	273.3	267.9
37.5°	280.6	264.3	248.9	245.3	239.8
40°	256.1	239.8	223.5	217.2	211.8
42.5°	229.9	215.4	200.9	191.0	183.7
45°	203.6	191.0	177.4	164.7	156.6
47.5°	178.3	168.3	156.6	141.2	135.8
50°	152.9	145.7	135.8	122.2	119.5
52.5°	126.7	124.0	117.7	108.6	107.7
55°	98.6	104.1	100.5	96.8	95.9
57.5°	83.3	84.2	86.9	86.0	86.0
60°	71.5	71.5	75.1	76.0	76.0
62.5°	60.6	61.5	65.2	67.0	67.0
65°	51.6	52.5	55.2	57.9	58.8
67.5°	42.5	44.3	47.1	49.8	50.7
70°	34.4	36.2	39.8	42.5	43.4
72.5°	28.1	29.0	32.6	35.3	36.2
75°	21.7	22.6	25.3	29.0	29.9
77.5°	15.4	17.2	19.9	22.6	24.4
80°	10.9	11.8	13.6	17.2	18.1
82.5°	6.3	7.2	9.1	11.8	12.7
85°	1.8	2.7	3.6	6.3	8.1
87.5°	0.0	0.0	0.0	1.8	3.6
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	14.29	15.69	14.66	16.00	16.31	14.47	15.87	14.83	16.18	16.49
	3H	15.42	16.67	15.80	16.99	17.36	15.93	17.17	16.31	17.50	17.87
	4H	15.77	16.94	16.17	17.29	17.67	16.47	17.63	16.87	17.98	18.37
	6H	15.96	17.03	16.37	17.40	17.79	16.88	17.95	17.30	18.32	18.72
	8H	15.98	17.00	16.41	17.39	17.79	17.01	18.03	17.44	18.42	18.82
	12H	15.97	16.94	16.40	17.32	17.75	17.09	18.07	17.52	18.45	18.88
4H	2H	14.75	15.91	15.15	16.26	16.64	14.89	16.06	15.30	16.41	16.79
	3H	16.09	17.04	16.50	17.45	17.85	16.57	17.52	16.98	17.93	18.33
	4H	16.53	17.39	16.96	17.81	18.25	17.23	18.09	17.67	18.51	18.95
	6H	16.80	17.55	17.26	17.99	18.45	17.77	18.51	18.23	18.95	19.42
	8H	16.85	17.54	17.31	17.99	18.46	17.93	18.63	18.40	19.07	19.54
	12H	16.84	17.46	17.32	17.94	18.41	18.06	18.67	18.54	19.15	19.63
8H	4H	16.74	17.44	17.21	17.88	18.35	17.38	18.07	17.85	18.52	18.99
	6H	17.09	17.66	17.59	18.15	18.63	18.01	18.58	18.51	19.08	19.55
	8H	17.17	17.68	17.69	18.19	18.68	18.25	18.76	18.77	19.27	19.76
	12H	17.18	17.63	17.70	18.13	18.70	18.43	18.88	18.94	19.37	19.94
12H	4H	16.75	17.37	17.24	17.85	18.32	17.37	17.98	17.85	18.46	18.94
	6H	17.12	17.63	17.63	18.14	18.63	18.01	18.52	18.52	19.03	19.52
	8H	17.23	17.68	17.74	18.18	18.74	18.28	18.73	18.80	19.23	19.80