

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: P1058465

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058465
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)
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-S
Description: DEFINE 2 SILVER 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

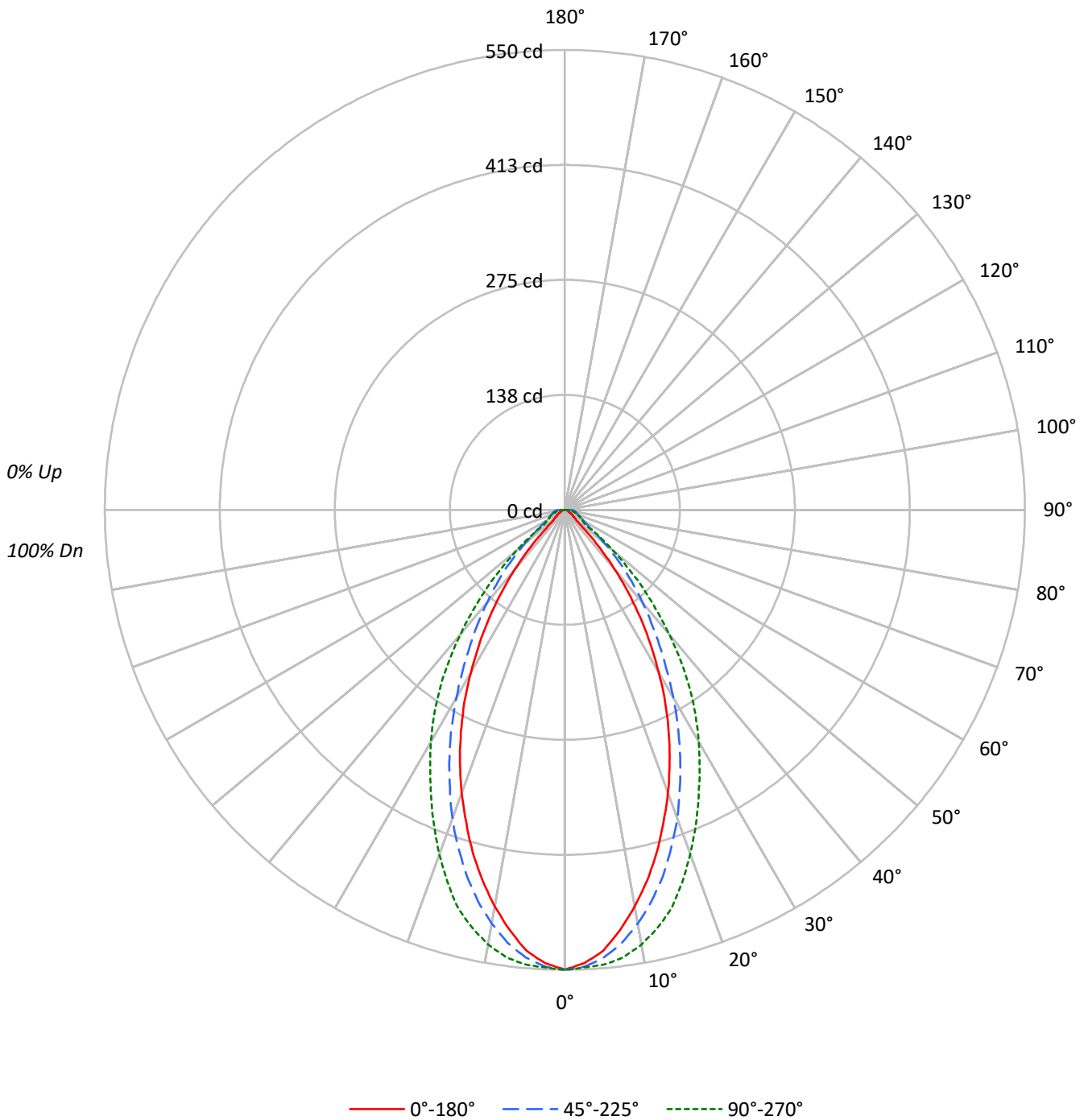
Lumens per Lamp: N/A
Luminaire Lumens: 592.8 lumens
Efficiency: N/A
Efficacy: 25.2 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	77	82	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	68	64	71	67	63	61																												
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57																												
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52																												
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48																												
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45																												
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10147	10147	10147
5°	9797	9952	10108
10°	9022	9415	9889
15°	8111	8654	9418
20°	7075	7717	8607
25°	5984	6650	7700
30°	4781	5523	6825
35°	3537	4438	5861
40°	2233	3476	4668
45°	879	2612	3437
50°	454	1754	2116
55°	373	1152	949
60°	273	934	856
65°	231	873	873
70°	227	912	852
75°	299	1048	898
80°	446	1339	1010
85°	677	2223	1334

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 4442 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.3	8.5
10°-20°	127.1	21.4
20°-30°	151.0	25.5
30°-40°	125.6	21.2
40°-50°	70.1	11.8
50°-60°	28.3	4.8
60°-70°	18.1	3.1
70°-80°	13.6	2.3
80°-90°	8.7	1.5
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°	328.3	55.4
0°-40°	453.9	76.6
0°-60°	552.4	93.2
0°-90°	592.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	592.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	550	550	550	550	550	
5°	529	538	537	542	546	49
15°	425	437	453	476	493	118
25°	294	306	327	352	378	134
35°	157	172	197	230	260	97
45°	34	57	100	117	132	32
55°	12	24	36	35	30	10
65°	5	21	20	19	20	5
75°	4	15	15	14	13	4
85°	3	10	10	10	6	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	549.9	549.9	549.9	549.9	549.9
2.5°	542.6	551.0	546.8	546.8	547.8
5°	528.9	538.3	537.3	541.5	545.7
7.5°	506.7	517.3	522.5	532.0	539.4
10°	481.5	493.0	502.5	517.3	527.8
12.5°	454.1	465.7	479.4	498.3	512.0
15°	424.6	437.2	453.0	476.2	493.0
17.5°	391.9	405.6	423.5	448.8	466.7
20°	360.3	374.0	393.0	418.2	438.3
22.5°	327.6	339.2	359.2	384.5	408.8
25°	293.9	305.5	326.6	351.9	378.2
27.5°	260.2	271.8	292.9	319.2	348.7
30°	224.4	237.0	259.2	288.7	320.3
32.5°	190.7	203.3	226.5	259.2	290.8
35°	157.0	171.7	197.0	229.7	260.2
37.5°	124.3	141.2	169.6	200.2	227.6
40°	92.7	110.6	144.3	170.7	193.8
42.5°	61.1	82.2	121.2	143.3	161.2
45°	33.7	56.9	100.1	116.9	131.7
47.5°	19.0	36.9	79.0	92.7	101.1
50°	15.8	27.4	61.1	70.6	73.7
52.5°	12.6	25.3	46.4	51.6	49.5
55°	11.6	24.2	35.8	34.8	29.5
57.5°	9.5	24.2	28.4	25.3	25.3
60°	7.4	23.2	25.3	22.1	23.2
62.5°	6.3	22.1	23.2	21.1	21.1
65°	5.3	21.1	20.0	19.0	20.0
67.5°	4.2	19.0	19.0	17.9	17.9
70°	4.2	17.9	16.9	15.8	15.8
72.5°	4.2	15.8	15.8	14.7	14.7
75°	4.2	14.7	14.7	13.7	12.6
77.5°	4.2	12.6	13.7	12.6	11.6
80°	4.2	11.6	12.6	11.6	9.5
82.5°	4.2	10.5	11.6	10.5	8.4
85°	3.2	9.5	10.5	9.5	6.3
87.5°	3.2	9.5	10.5	8.4	5.3
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	6.41	7.63	6.78	7.94	8.26	7.49	8.71	7.86	9.03	9.34
	3H	7.75	8.83	8.13	9.16	9.53	9.52	10.61	9.90	10.94	11.30
	4H	8.32	9.33	8.72	9.68	10.06	10.47	11.48	10.88	11.83	12.22
	6H	8.88	9.81	9.30	10.18	10.58	11.42	12.35	11.84	12.72	13.12
	8H	9.21	10.08	9.64	10.48	10.88	11.87	12.75	12.30	13.14	13.55
	12H	9.52	10.36	9.95	10.74	11.17	12.29	13.13	12.72	13.51	13.94
4H	2H	7.37	8.38	7.78	8.74	9.12	8.17	9.18	8.57	9.53	9.92
	3H	9.41	10.24	9.82	10.64	11.05	10.45	11.28	10.86	11.69	12.09
	4H	10.48	11.23	10.92	11.65	12.09	11.60	12.34	12.03	12.76	13.21
	6H	11.35	12.00	11.82	12.45	12.91	12.77	13.42	13.23	13.86	14.33
	8H	11.76	12.37	12.23	12.81	13.29	13.33	13.93	13.80	14.38	14.85
	12H	12.14	12.68	12.63	13.16	13.64	13.87	14.40	14.36	14.89	15.36
8H	4H	11.25	11.86	11.72	12.30	12.78	12.15	12.75	12.62	13.20	13.67
	6H	12.59	13.09	13.09	13.58	14.07	13.60	14.10	14.11	14.60	15.08
	8H	13.30	13.75	13.83	14.27	14.76	14.36	14.81	14.89	15.33	15.82
	12H	14.00	14.39	14.52	14.89	15.46	15.15	15.54	15.67	16.04	16.61
12H	4H	11.41	11.94	11.89	12.42	12.90	12.25	12.79	12.74	13.27	13.75
	6H	12.91	13.36	13.44	13.87	14.37	13.83	14.27	14.35	14.79	15.28
	8H	13.81	14.21	14.33	14.70	15.28	14.73	15.13	15.25	15.62	16.19