

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058140

Luminaire Tested: S122RDRP-S865D850-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1058140
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-21)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S865D850-X4F0-XX-UDD-BVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

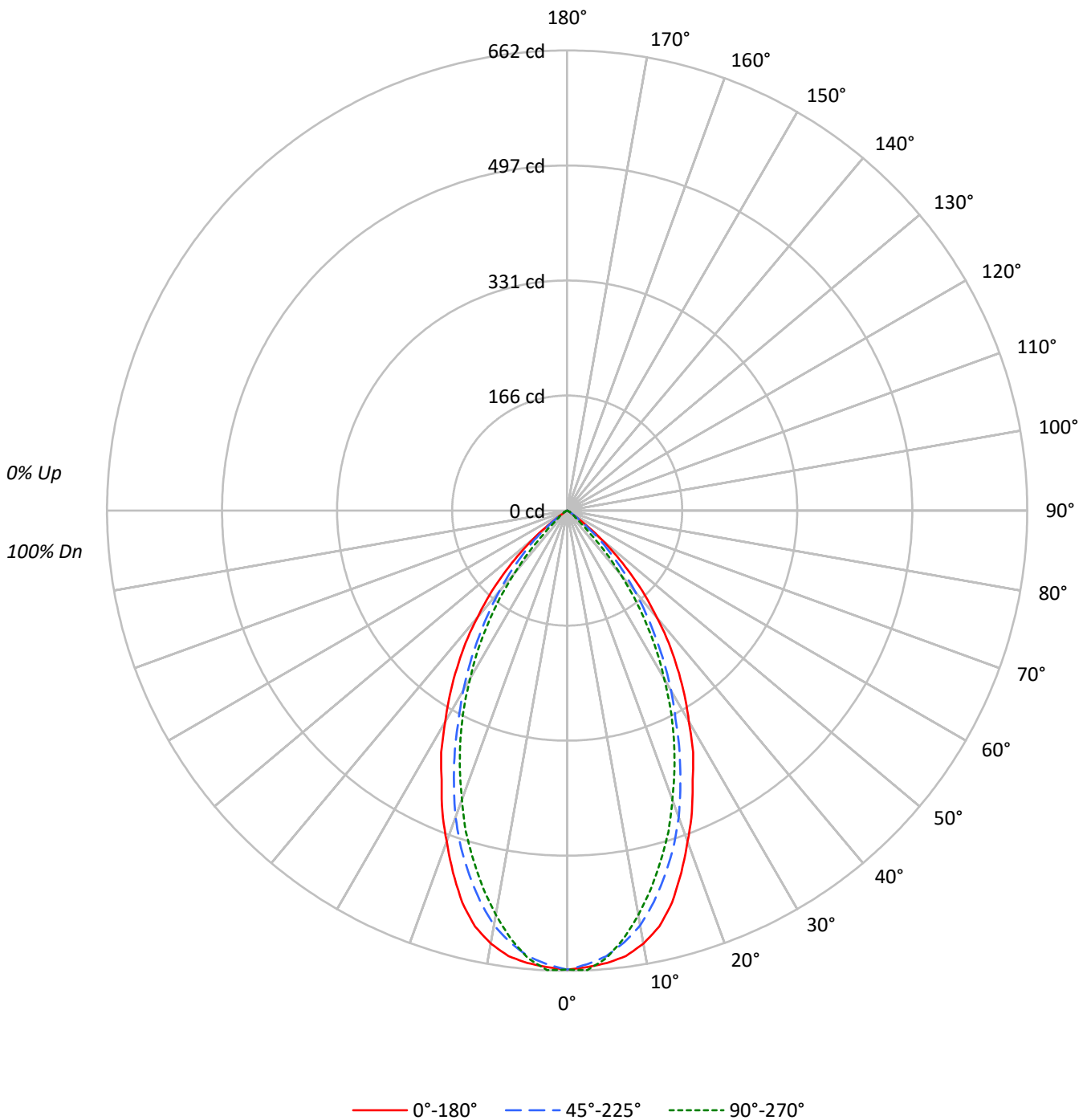
Lumens per Lamp: N/A
Luminaire Lumens: 621.0 lumens
Efficiency: N/A
Efficacy: 17.7 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 0.8 / 0.88
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): 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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	110	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95	93
2	107	102	98	94	105	100	97	93	97	94	91	94	92	89	91	89	87	86
3	101	95	90	85	99	93	89	85	91	87	83	88	85	82	86	83	81	79
4	96	88	82	78	94	87	81	77	85	80	76	83	79	75	81	77	75	73
5	91	82	76	71	89	81	75	71	79	74	70	77	73	70	76	72	69	67
6	86	76	70	66	84	76	70	65	74	69	65	73	68	64	71	67	64	62
7	81	71	65	61	80	71	65	61	69	64	60	68	63	60	67	63	60	58
8	77	67	61	56	76	66	60	56	65	60	56	64	59	56	63	59	56	54
9	73	63	57	53	72	62	57	52	61	56	52	61	56	52	60	55	52	51
10	69	59	53	49	68	59	53	49	58	53	49	57	52	49	56	52	49	47

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12184	12184	12184
5°	12103	11921	11973
10°	11849	11353	11064
15°	11147	10375	9947
20°	9952	9212	8689
25°	8698	7788	7391
30°	7466	6367	5949
35°	6226	4969	4465
40°	4842	3666	2859
45°	3387	2440	1240
50°	1843	1283	442
55°	270	450	315
60°	52	103	207
65°	0	61	122
70°	0	0	76
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3387 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.6	9.8
10°-20°	152.9	24.6
20°-30°	178.2	28.7
30°-40°	142.9	23.0
40°-50°	71.0	11.4
50°-60°	14.0	2.3
60°-70°	1.2	0.2
70°-80°	0.1	0.0
80°-90°	0.0	0.0
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°	391.8	63.1
0°-40°	534.6	86.1
0°-60°	619.6	99.8
0°-90°	621.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	621.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	660	660	660	660	660	
5°	653	653	644	645	646	62
15°	584	572	543	529	521	162
25°	427	406	382	374	363	197
35°	276	248	221	211	198	172
45°	130	114	94	63	48	100
55°	8	17	14	8	10	17
65°	0	0	1	1	3	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	660.3	660.3	660.3	660.3	660.3
2.5°	657.5	660.3	653.4	660.3	661.7
5°	653.4	653.4	643.6	645.0	646.4
7.5°	646.4	643.6	626.8	624.0	621.2
10°	632.4	626.8	605.9	594.7	590.5
12.5°	612.9	604.5	576.6	564.0	557.0
15°	583.5	572.4	543.1	529.1	520.7
17.5°	545.9	536.1	508.2	492.8	484.4
20°	506.8	492.8	469.1	453.7	442.5
22.5°	469.1	450.9	425.8	414.6	403.5
25°	427.2	406.3	382.5	374.1	363.0
27.5°	392.3	365.8	337.8	332.3	322.5
30°	350.4	325.3	298.8	290.4	279.2
32.5°	314.1	286.2	259.7	249.9	240.1
35°	276.4	248.5	220.6	210.8	198.2
37.5°	240.1	213.6	185.7	170.3	159.1
40°	201.0	178.7	152.2	132.6	118.7
42.5°	166.1	146.6	121.5	96.3	82.4
45°	129.8	114.5	93.5	62.8	47.5
47.5°	96.3	85.2	68.4	36.3	25.1
50°	64.2	60.0	44.7	18.1	15.4
52.5°	34.9	37.7	26.5	11.2	12.6
55°	8.4	16.8	14.0	8.4	9.8
57.5°	1.4	2.8	7.0	7.0	7.0
60°	1.4	1.4	2.8	4.2	5.6
62.5°	1.4	0.0	1.4	2.8	4.2
65°	0.0	0.0	1.4	1.4	2.8
67.5°	0.0	0.0	0.0	1.4	1.4
70°	0.0	0.0	0.0	1.4	1.4
72.5°	0.0	0.0	0.0	0.0	1.4
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	0.00	0.00	0.00	0.00	0.16
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4H	2H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00