

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: P1058548

Luminaire Tested: S122RDR-H865D850-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058548
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-20)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H865D850-X4F0-XX-UDD-SVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

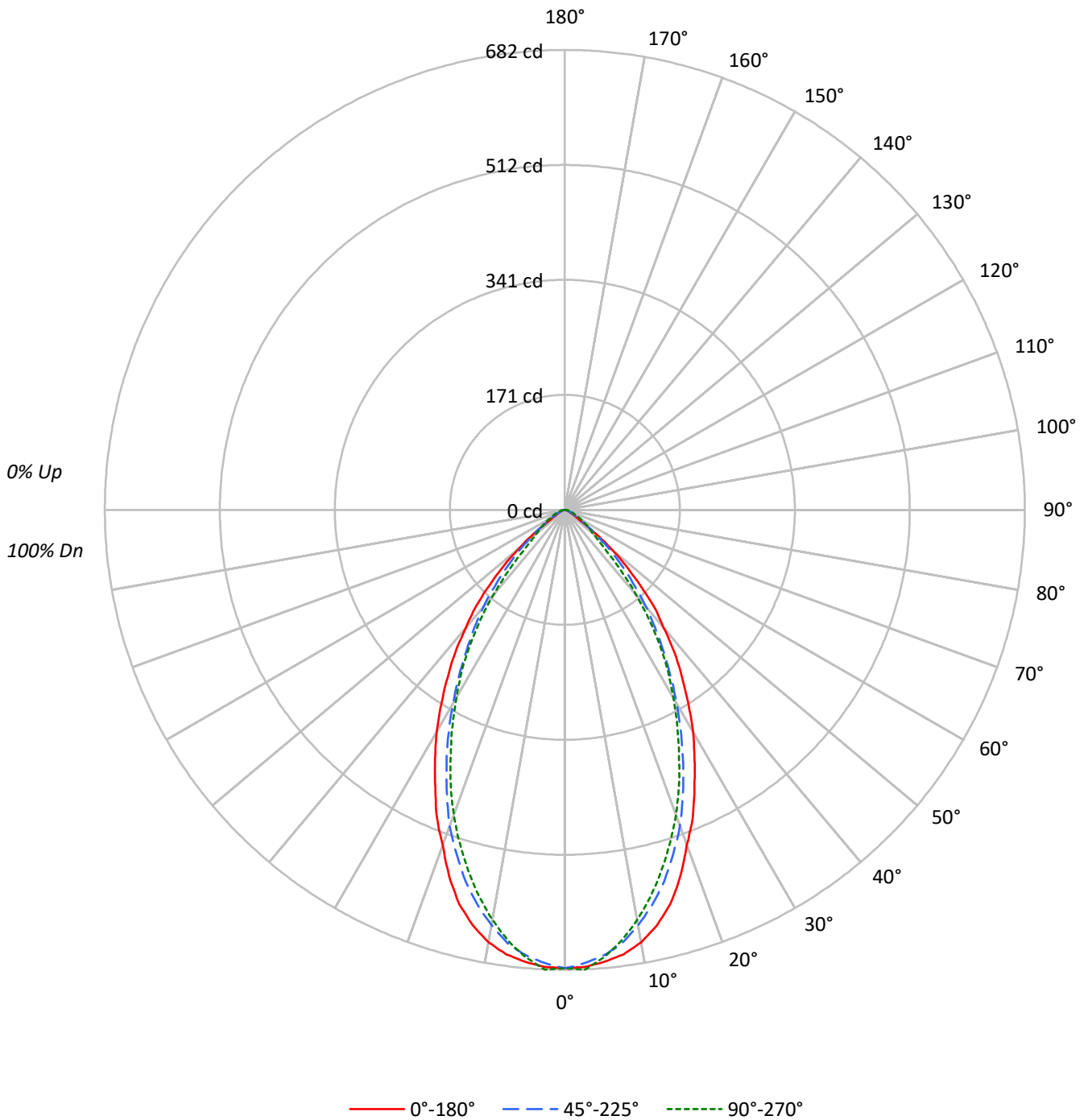
Lumens per Lamp: N/A
Luminaire Lumens: 731.0 lumens
Efficiency: N/A
Efficacy: 23.4 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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	
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				
1	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92				
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84				
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	80	78	76				
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70				
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64				
6	83	73	67	62	82	72	66	62	71	65	61	69	64	61	68	64	60	59				
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54				
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50				
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	47				
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	44				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12542	12542	12542
5°	12464	12288	12338
10°	12202	11718	11566
15°	11559	10885	10574
20°	10390	9803	9457
25°	9254	8451	8148
30°	8095	7053	6850
35°	6814	5715	5532
40°	5490	4509	3987
45°	4107	3257	2372
50°	2569	2104	1559
55°	872	1136	1264
60°	502	701	1000
65°	354	476	768
70°	291	367	588
75°	192	292	485
80°	149	287	436
85°	0	0	296

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4107 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.6	8.6
10°-20°	160.4	21.9
20°-30°	193.1	26.4
30°-40°	165.0	22.6
40°-50°	96.7	13.2
50°-60°	35.0	4.8
60°-70°	12.4	1.7
70°-80°	5.0	0.7
80°-90°	0.9	0.1
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°	416.1	56.9
0°-40°	581.1	79.5
0°-60°	712.7	97.5
0°-90°	731.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	731.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	680	680	680	680	680	
5°	673	674	663	666	666	64
15°	605	596	570	559	554	168
25°	454	436	415	408	400	209
35°	302	280	254	251	246	189
45°	157	141	125	104	91	121
55°	27	38	35	37	39	34
65°	8	10	11	15	18	9
75°	3	4	4	5	7	3
85°	0	0	0	1	1	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	679.7	679.7	679.7	679.7	679.7
2.5°	678.3	679.7	672.9	679.7	682.4
5°	672.9	674.3	663.4	666.1	666.1
7.5°	664.8	663.4	648.5	645.8	644.4
10°	651.2	647.1	625.4	621.3	617.3
12.5°	630.8	622.7	599.6	592.9	587.4
15°	605.1	595.6	569.8	558.9	553.5
17.5°	569.8	558.9	534.5	523.7	518.2
20°	529.1	518.2	499.2	487.0	481.6
22.5°	495.2	477.5	457.2	449.1	442.3
25°	454.5	435.5	415.1	408.4	400.2
27.5°	416.5	393.4	373.1	367.7	360.9
30°	379.9	355.4	331.0	331.0	321.5
32.5°	340.5	317.5	291.7	290.3	284.9
35°	302.5	279.5	253.7	251.0	245.6
37.5°	267.3	244.2	219.8	211.6	204.9
40°	227.9	207.6	187.2	173.7	165.5
42.5°	196.7	173.7	153.3	137.0	126.2
45°	157.4	141.1	124.8	104.5	90.9
47.5°	122.1	111.2	97.7	74.6	67.8
50°	89.5	84.1	73.3	55.6	54.3
52.5°	57.0	59.7	52.9	43.4	47.5
55°	27.1	38.0	35.3	36.6	39.3
57.5°	17.6	19.0	25.8	29.8	32.6
60°	13.6	13.6	19.0	24.4	27.1
62.5°	10.9	10.9	14.9	20.3	21.7
65°	8.1	9.5	10.9	14.9	17.6
67.5°	6.8	6.8	8.1	12.2	13.6
70°	5.4	5.4	6.8	9.5	10.9
72.5°	4.1	4.1	5.4	8.1	8.1
75°	2.7	4.1	4.1	5.4	6.8
77.5°	2.7	2.7	2.7	4.1	5.4
80°	1.4	1.4	2.7	2.7	4.1
82.5°	1.4	1.4	1.4	1.4	2.7
85°	0.0	0.0	0.0	1.4	1.4
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	4.67	5.83	5.04	6.15	6.46	8.06	9.22	8.43	9.53	9.85
	3H	5.19	6.21	5.57	6.54	6.91	8.79	9.81	9.17	10.15	10.51
	4H	5.33	6.27	5.73	6.63	7.01	9.01	9.96	9.41	10.31	10.69
	6H	5.40	6.27	5.82	6.64	7.04	9.16	10.03	9.58	10.40	10.79
	8H	5.41	6.23	5.84	6.62	7.03	9.19	10.01	9.62	10.40	10.81
	12H	5.38	6.16	5.81	6.54	6.97	9.19	9.97	9.63	10.36	10.79
4H	2H	4.98	5.93	5.39	6.28	6.67	8.03	8.98	8.43	9.33	9.72
	3H	5.64	6.41	6.06	6.82	7.22	8.91	9.67	9.32	10.08	10.49
	4H	5.88	6.57	6.32	6.99	7.44	9.19	9.87	9.62	10.29	10.74
	6H	6.01	6.59	6.47	7.04	7.51	9.41	10.00	9.88	10.45	10.92
	8H	6.03	6.57	6.50	7.02	7.49	9.46	10.00	9.93	10.45	10.93
	12H	5.99	6.47	6.48	6.96	7.43	9.48	9.96	9.97	10.44	10.92
8H	4H	5.99	6.54	6.46	6.99	7.46	9.12	9.66	9.59	10.11	10.59
	6H	6.16	6.60	6.67	7.10	7.59	9.38	9.82	9.88	10.32	10.80
	8H	6.21	6.61	6.74	7.13	7.62	9.44	9.84	9.97	10.36	10.85
	12H	6.19	6.54	6.71	7.04	7.61	9.51	9.85	10.02	10.35	10.93
12H	4H	5.98	6.45	6.47	6.94	7.42	9.07	9.55	9.56	10.03	10.51
	6H	6.16	6.56	6.69	7.07	7.57	9.33	9.72	9.86	10.24	10.74
	8H	6.24	6.59	6.76	7.08	7.66	9.42	9.76	9.93	10.26	10.84