

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: P1058221

Luminaire Tested: S122RDR-H1005D850-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058221
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: S122RDR-H1005D850-X4F0-XX-UDD-BVL-B
Description: DEFINE 2 BLACK 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

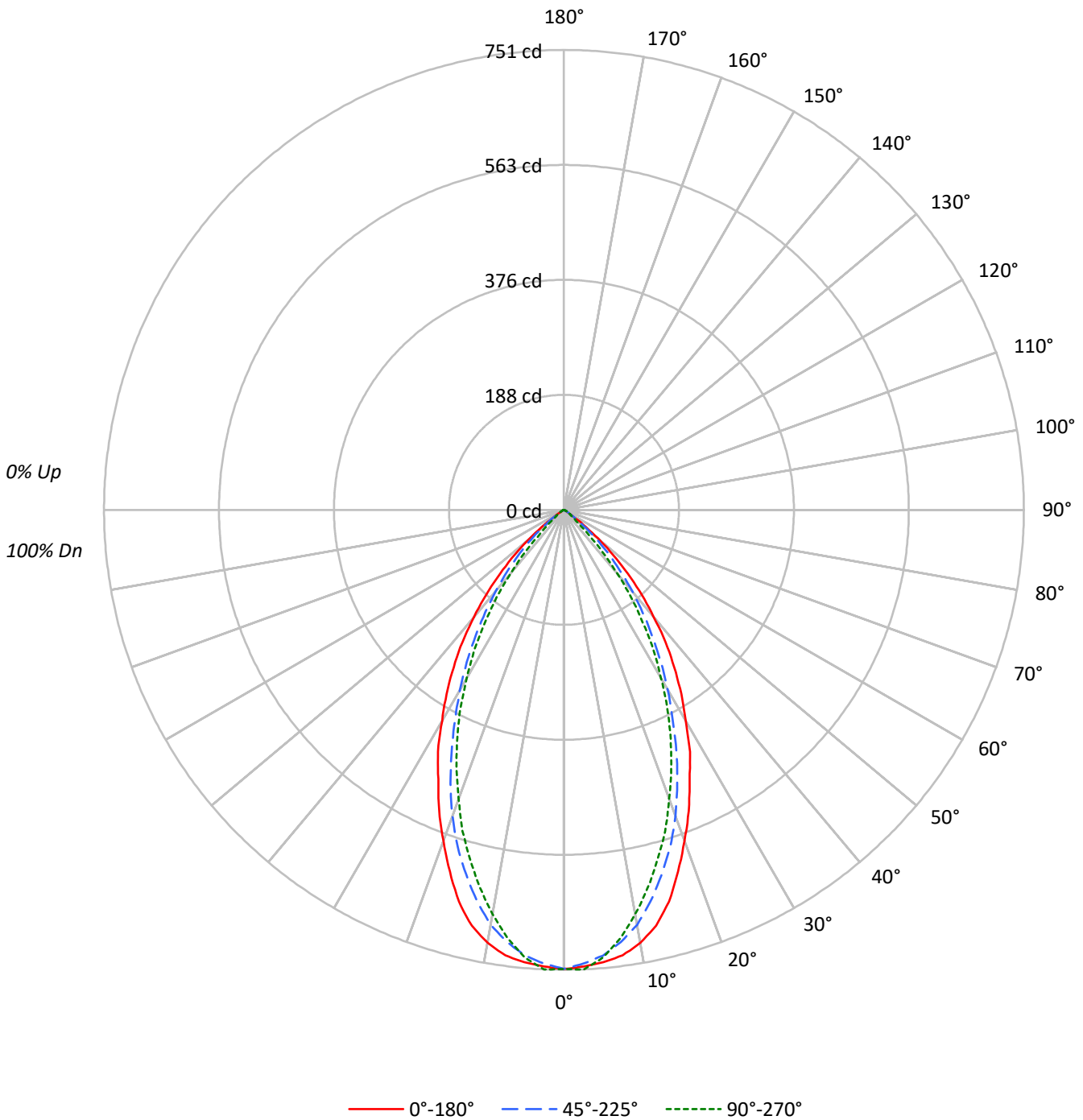
Lumens per Lamp: N/A
Luminaire Lumens: 705.0 lumens
Efficiency: N/A
Efficacy: 19.3 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 0.8 / 0.88
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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			
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
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°	13832	13832	13832
5°	13738	13533	13592
10°	13453	12887	12561
15°	12656	11777	11294
20°	11297	10457	9865
25°	9875	8842	8390
30°	8476	7227	6754
35°	7069	5641	5071
40°	5497	4162	3245
45°	3847	2771	1407
50°	2093	1455	500
55°	306	508	357
60°	59	118	233
65°	0	70	140
70°	0	0	86
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3847 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.8	9.8
10°-20°	173.6	24.6
20°-30°	202.3	28.7
30°-40°	162.2	23.0
40°-50°	80.6	11.4
50°-60°	15.9	2.3
60°-70°	1.4	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°	444.8	63.1
0°-40°	607.0	86.1
0°-60°	703.4	99.8
0°-90°	705.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	705.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	750	750	750	750	750	
5°	742	742	731	732	734	70
15°	662	650	616	601	591	184
25°	485	461	434	425	412	223
35°	314	282	250	239	225	195
45°	147	130	106	71	54	114
55°	10	19	16	10	11	19
65°	0	0	2	2	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°	749.6	749.6	749.6	749.6	749.6
2.5°	746.5	749.6	741.7	749.6	751.2
5°	741.7	741.7	730.6	732.2	733.8
7.5°	733.8	730.6	711.6	708.4	705.3
10°	718.0	711.6	687.8	675.2	670.4
12.5°	695.8	686.3	654.6	640.3	632.4
15°	662.5	649.8	616.5	600.7	591.2
17.5°	619.7	608.6	576.9	559.5	550.0
20°	575.3	559.5	532.5	515.1	502.4
22.5°	532.5	511.9	483.4	470.7	458.0
25°	485.0	461.2	434.3	424.7	412.1
27.5°	445.4	415.2	383.5	377.2	366.1
30°	397.8	369.3	339.2	329.7	317.0
32.5°	356.6	324.9	294.8	283.7	272.6
35°	313.8	282.1	250.4	239.3	225.1
37.5°	272.6	242.5	210.8	193.4	180.7
40°	228.2	202.9	172.8	150.6	134.7
42.5°	188.6	166.4	137.9	109.4	93.5
45°	147.4	130.0	106.2	71.3	53.9
47.5°	109.4	96.7	77.7	41.2	28.5
50°	72.9	68.1	50.7	20.6	17.4
52.5°	39.6	42.8	30.1	12.7	14.3
55°	9.5	19.0	15.8	9.5	11.1
57.5°	1.6	3.2	7.9	7.9	7.9
60°	1.6	1.6	3.2	4.8	6.3
62.5°	1.6	0.0	1.6	3.2	4.8
65°	0.0	0.0	1.6	1.6	3.2
67.5°	0.0	0.0	0.0	1.6	1.6
70°	0.0	0.0	0.0	1.6	1.6
72.5°	0.0	0.0	0.0	0.0	1.6
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	0.25	0.56
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.60
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.49
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
4H	2H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
	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