

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: P1057978

Luminaire Tested: S122RDRP-S485D850-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057978
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-S485D850-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

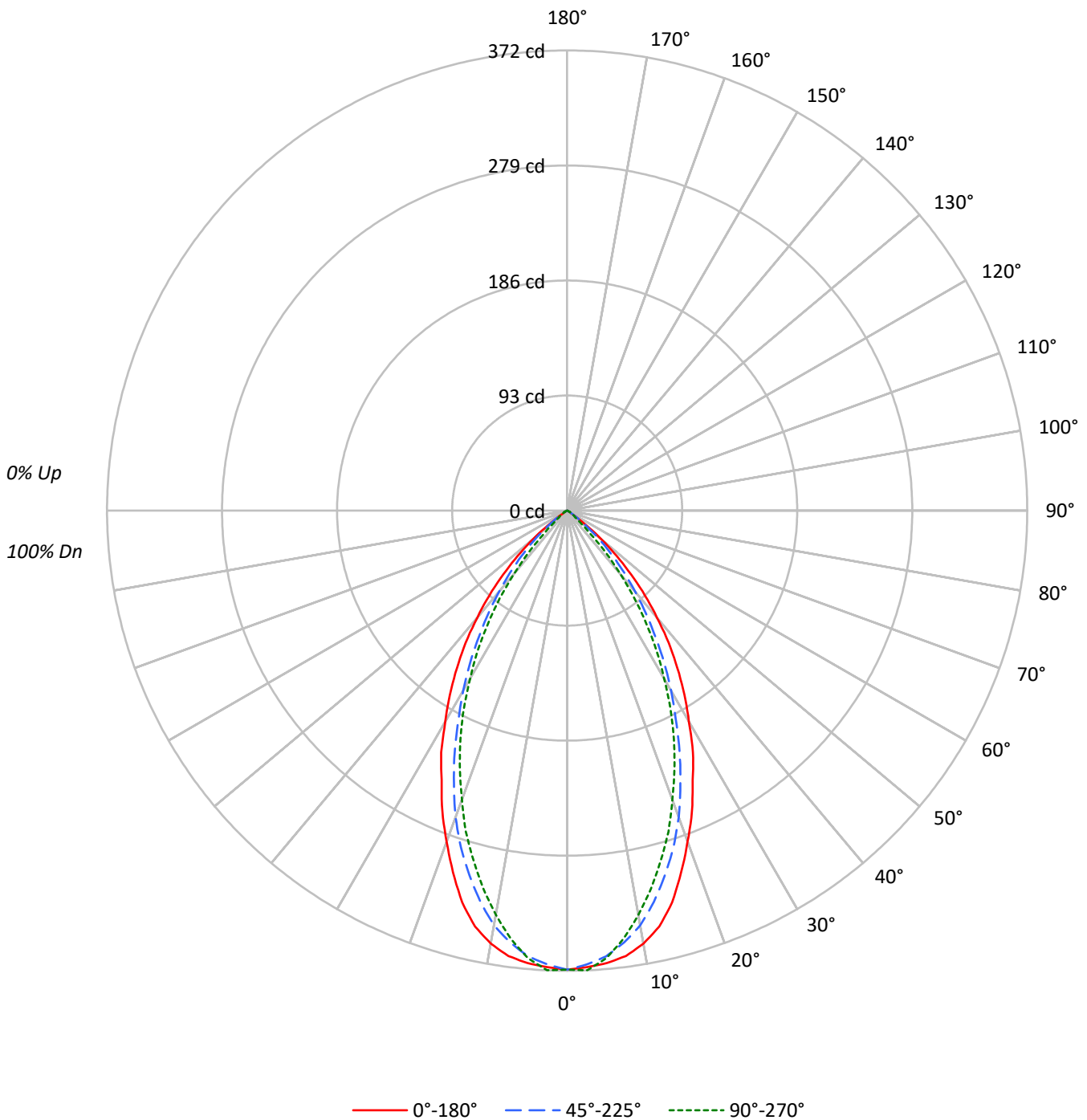
Lumens per Lamp: N/A
Luminaire Lumens: 349.0 lumens
Efficiency: N/A
Efficacy: 17.8 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 0.8 / 0.88
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
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	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	113	110	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95	93					93			
2	107	102	98	94	105	100	97	93	97	94	91	94	92	89	91	89	87	86					86			
3	101	95	90	85	99	93	89	85	91	87	83	88	85	82	86	83	81	79					79			
4	96	88	82	78	94	87	81	77	85	80	76	83	79	75	81	77	75	73					73			
5	91	82	76	71	89	81	75	71	79	74	70	77	73	70	76	72	69	67					67			
6	86	76	70	66	84	76	70	65	74	69	65	73	68	64	71	67	64	62					62			
7	81	71	65	61	80	71	65	61	69	64	60	68	63	60	67	63	60	58					58			
8	77	67	61	56	76	66	60	56	65	60	56	64	59	56	63	59	56	54					54			
9	73	63	57	53	72	62	57	52	61	56	52	61	56	52	60	55	52	51					51			
10	69	59	53	49	68	59	53	49	58	53	49	57	52	49	56	52	49	47					47			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6848	6848	6848
5°	6802	6700	6728
10°	6659	6380	6217
15°	6264	5830	5590
20°	5593	5176	4884
25°	4888	4377	4153
30°	4195	3577	3343
35°	3498	2793	2509
40°	2722	2060	1607
45°	1905	1373	697
50°	1036	721	247
55°	151	251	177
60°	30	59	114
65°	0	35	70
70°	0	0	43
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1905 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.1	9.8
10°-20°	85.9	24.6
20°-30°	100.2	28.7
30°-40°	80.3	23.0
40°-50°	39.9	11.4
50°-60°	7.9	2.3
60°-70°	0.7	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°	220.2	63.1
0°-40°	300.4	86.1
0°-60°	348.2	99.8
0°-90°	349.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	349.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	371	371	371	371	371	
5°	367	367	362	362	363	35
15°	328	322	305	297	293	91
25°	240	228	215	210	204	110
35°	155	140	124	118	111	97
45°	73	64	53	35	27	56
55°	5	9	8	5	6	9
65°	0	0	1	1	2	0
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°	371.1	371.1	371.1	371.1	371.1
2.5°	369.5	371.1	367.2	371.1	371.9
5°	367.2	367.2	361.7	362.4	363.2
7.5°	363.2	361.7	352.2	350.7	349.1
10°	355.4	352.2	340.5	334.2	331.8
12.5°	344.4	339.7	324.0	316.9	313.0
15°	327.9	321.6	305.2	297.3	292.6
17.5°	306.7	301.3	285.6	276.9	272.2
20°	284.8	276.9	263.6	255.0	248.7
22.5°	263.6	253.4	239.3	233.0	226.7
25°	240.1	228.3	215.0	210.2	204.0
27.5°	220.4	205.5	189.9	186.7	181.2
30°	196.9	182.8	167.9	163.2	156.9
32.5°	176.5	160.8	145.9	140.4	134.9
35°	155.3	139.6	124.0	118.5	111.4
37.5°	134.9	120.0	104.3	95.7	89.4
40°	113.0	100.4	85.5	74.5	66.7
42.5°	93.4	82.4	68.3	54.1	46.3
45°	73.0	64.3	52.6	35.3	26.7
47.5°	54.1	47.9	38.4	20.4	14.1
50°	36.1	33.7	25.1	10.2	8.6
52.5°	19.6	21.2	14.9	6.3	7.1
55°	4.7	9.4	7.8	4.7	5.5
57.5°	0.8	1.6	3.9	3.9	3.9
60°	0.8	0.8	1.6	2.4	3.1
62.5°	0.8	0.0	0.8	1.6	2.4
65°	0.0	0.0	0.8	0.8	1.6
67.5°	0.0	0.0	0.0	0.8	0.8
70°	0.0	0.0	0.0	0.8	0.8
72.5°	0.0	0.0	0.0	0.0	0.8
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	0.00
	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
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