

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: P1058358

Luminaire Tested: S122RDR-H485D830-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058358
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H485D830-X4F0-XX-UDD-BVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

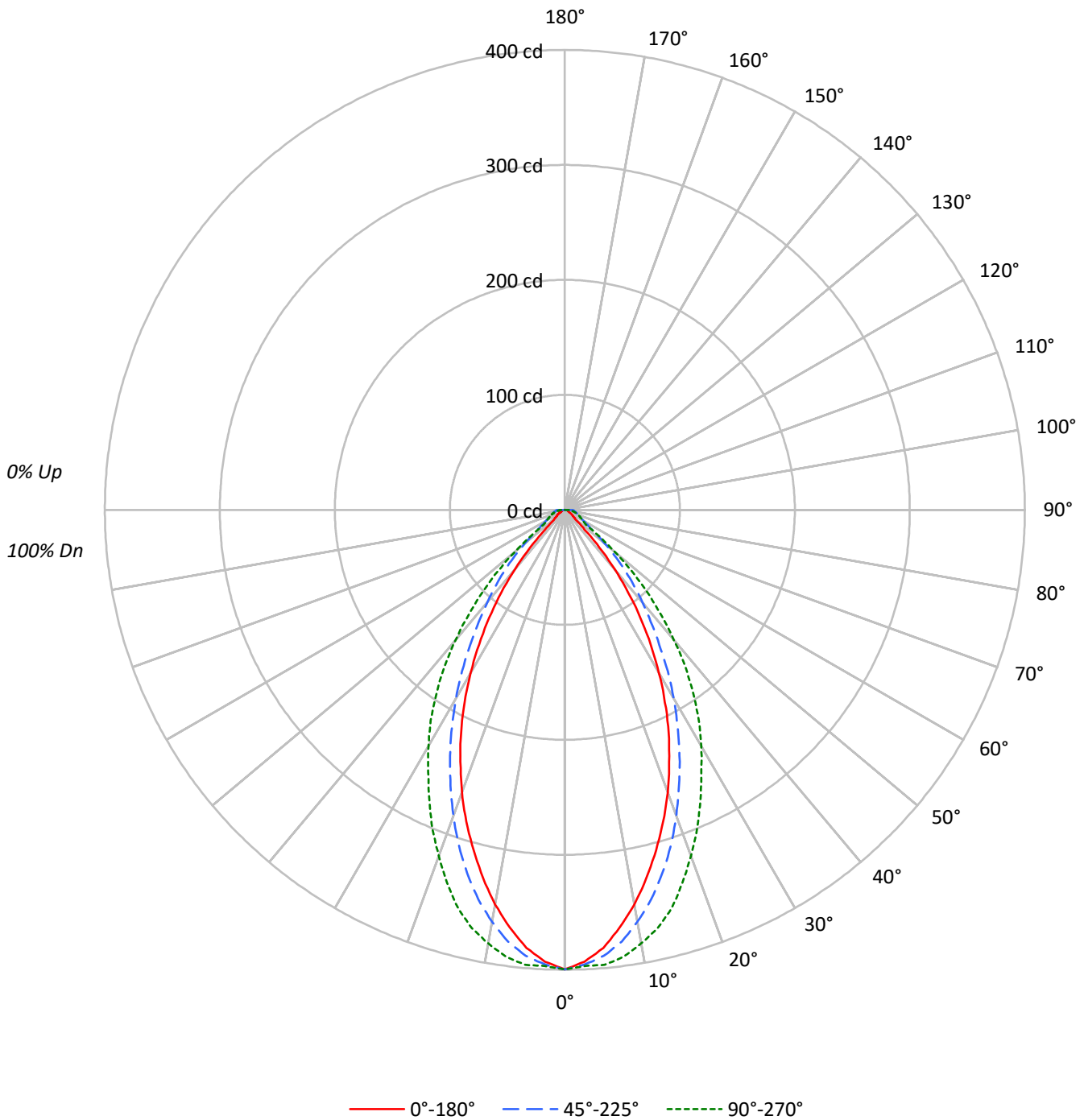
Lumens per Lamp: N/A
Luminaire Lumens: 435.0 lumens
Efficiency: N/A
Efficacy: 25.0 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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	76	81	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	67	64	71	66	63	61																												
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56																												
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52																												
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48																												
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45																												
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7375	7375	7375
5°	7083	7213	7355
10°	6530	6818	7176
15°	5851	6254	6852
20°	5135	5563	6292
25°	4349	4805	5676
30°	3488	4033	5054
35°	2579	3226	4379
40°	1616	2527	3558
45°	634	1902	2636
50°	313	1286	1616
55°	248	843	721
60°	188	683	661
65°	140	642	642
70°	173	658	658
75°	185	727	684
80°	276	956	744
85°	550	1630	1080

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 2961 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.5	8.4
10°-20°	92.3	21.2
20°-30°	110.4	25.4
30°-40°	92.9	21.4
40°-50°	52.9	12.2
50°-60°	20.9	4.8
60°-70°	13.1	3.0
70°-80°	9.8	2.2
80°-90°	6.2	1.4
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°	239.2	55.0
0°-40°	332.1	76.3
0°-60°	405.9	93.3
0°-90°	435.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	435.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	400	400	400	400	400	
5°	382	391	389	394	397	35
15°	306	317	327	347	359	85
25°	214	223	236	260	279	97
35°	114	125	143	174	194	71
45°	24	43	73	91	101	23
55°	8	17	26	27	22	7
65°	3	15	15	14	15	4
75°	3	10	10	10	10	3
85°	3	7	8	7	5	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	399.7	399.7	399.7	399.7	399.7
2.5°	393.3	400.3	395.8	396.5	397.1
5°	382.4	390.7	389.4	393.9	397.1
7.5°	366.4	375.4	378.6	386.2	392.0
10°	348.5	358.7	363.9	376.0	383.0
12.5°	328.1	339.6	347.2	362.6	372.8
15°	306.3	317.2	327.4	346.6	358.7
17.5°	284.6	295.4	306.3	327.4	340.2
20°	261.5	271.8	283.3	305.7	320.4
22.5°	237.2	248.1	259.6	282.6	300.6
25°	213.6	223.2	236.0	260.3	278.8
27.5°	188.6	198.2	212.3	237.2	257.1
30°	163.7	173.3	189.3	214.9	237.2
32.5°	138.8	149.0	166.3	194.4	216.8
35°	114.5	124.7	143.2	173.9	194.4
37.5°	90.8	102.3	122.8	152.8	172.0
40°	67.1	80.6	104.9	131.7	147.7
42.5°	44.8	61.4	88.2	110.6	124.1
45°	24.3	42.8	72.9	91.4	101.0
47.5°	13.4	27.5	58.2	72.9	78.7
50°	10.9	19.2	44.8	55.6	56.3
52.5°	9.0	17.3	33.3	39.6	36.5
55°	7.7	16.6	26.2	26.9	22.4
57.5°	6.4	16.0	21.7	19.2	19.2
60°	5.1	16.0	18.5	17.3	17.9
62.5°	3.8	16.0	16.6	15.3	16.0
65°	3.2	14.7	14.7	14.1	14.7
67.5°	3.2	13.4	13.4	12.8	13.4
70°	3.2	12.8	12.2	12.2	12.2
72.5°	2.6	11.5	11.5	10.9	10.9
75°	2.6	10.2	10.2	9.6	9.6
77.5°	2.6	9.6	9.6	9.0	8.3
80°	2.6	8.3	9.0	8.3	7.0
82.5°	2.6	7.7	8.3	7.7	5.8
85°	2.6	7.0	7.7	7.0	5.1
87.5°	1.9	7.0	7.0	5.8	3.8
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	4.64	5.86	5.00	6.17	6.49	6.66	7.89	7.03	8.20	8.51
	3H	6.18	7.26	6.56	7.60	7.96	8.64	9.72	9.02	10.05	10.42
	4H	6.74	7.75	7.14	8.10	8.49	9.55	10.57	9.96	10.92	11.30
	6H	7.30	8.23	7.72	8.60	9.00	10.43	11.36	10.85	11.73	12.13
	8H	7.60	8.48	8.03	8.87	9.28	10.84	11.72	11.27	12.11	12.52
	12H	7.97	8.81	8.40	9.19	9.62	11.28	12.12	11.71	12.51	12.94
4H	2H	5.82	6.83	6.23	7.18	7.57	7.28	8.29	7.69	8.64	9.03
	3H	8.02	8.86	8.44	9.26	9.66	9.53	10.36	9.94	10.77	11.17
	4H	9.07	9.82	9.51	10.24	10.69	10.60	11.35	11.04	11.77	12.22
	6H	9.97	10.62	10.44	11.07	11.54	11.71	12.36	12.17	12.80	13.27
	8H	10.36	10.97	10.83	11.42	11.89	12.24	12.84	12.71	13.29	13.76
	12H	10.79	11.32	11.28	11.81	12.28	12.81	13.34	13.30	13.83	14.30
8H	4H	9.87	10.48	10.35	10.93	11.40	11.09	11.70	11.56	12.15	12.62
	6H	11.26	11.76	11.77	12.26	12.74	12.49	12.99	12.99	13.48	13.96
	8H	11.98	12.43	12.51	12.95	13.44	13.23	13.68	13.75	14.19	14.69
	12H	12.74	13.13	13.25	13.63	14.20	14.06	14.45	14.58	14.95	15.52
12H	4H	10.04	10.57	10.53	11.06	11.53	11.19	11.73	11.68	12.21	12.69
	6H	11.59	12.04	12.12	12.56	13.05	12.71	13.15	13.23	13.67	14.16
	8H	12.51	12.91	13.03	13.40	13.97	13.59	13.99	14.11	14.48	15.06