

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: P1058223

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058223
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-H1005D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

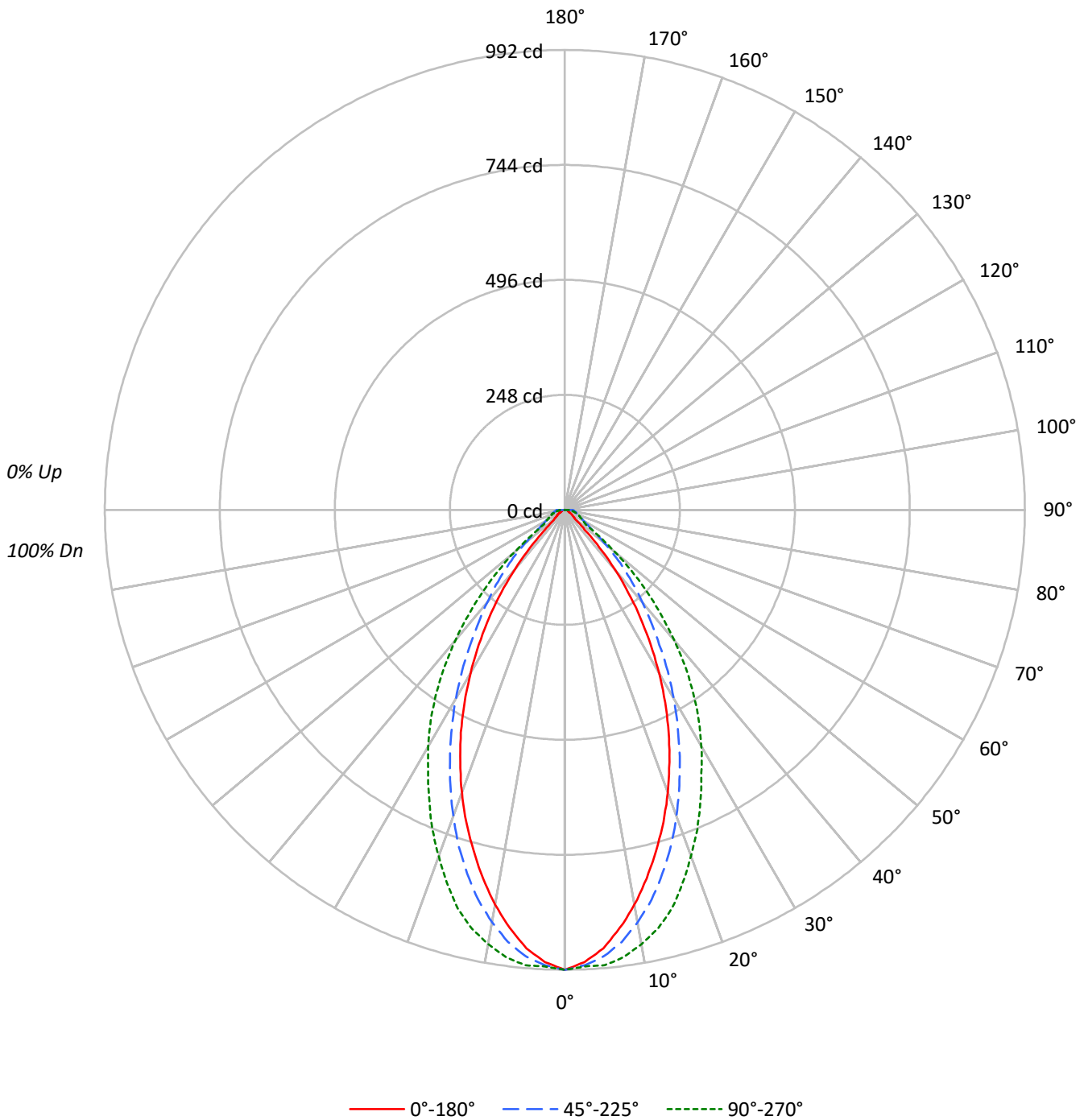
Lumens per Lamp: N/A
Luminaire Lumens: 1079.9 lumens
Efficiency: N/A
Efficacy: 29.6 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	18309	18309	18309
5°	17584	17908	18260
10°	16211	16925	17817
15°	14526	15527	17013
20°	12750	13810	15617
25°	10795	11927	14091
30°	8659	10012	12550
35°	6402	8010	10871
40°	4015	6270	8833
45°	1574	4723	6545
50°	775	3189	4010
55°	611	2094	1789
60°	469	1698	1639
65°	345	1594	1594
70°	426	1629	1629
75°	449	1811	1697
80°	669	2359	1860
85°	1334	4023	2689

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 7403 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.6	8.4
10°-20°	229.1	21.2
20°-30°	274.1	25.4
30°-40°	230.7	21.4
40°-50°	131.3	12.2
50°-60°	51.8	4.8
60°-70°	32.6	3.0
70°-80°	24.2	2.2
80°-90°	15.4	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°	593.8	55.0
0°-40°	824.5	76.3
0°-60°	1007.6	93.3
0°-90°	1079.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1079.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	992	992	992	992	992	
5°	949	970	967	978	986	88
15°	760	787	813	860	891	212
25°	530	554	586	646	692	241
35°	284	310	356	432	483	176
45°	60	106	181	227	251	57
55°	19	41	65	67	56	17
65°	8	36	36	35	36	9
75°	6	25	25	24	24	7
85°	6	18	19	18	13	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	992.2	992.2	992.2	992.2	992.2
2.5°	976.3	993.8	982.7	984.2	985.8
5°	949.3	970.0	966.8	977.9	985.8
7.5°	909.6	931.9	939.8	958.8	973.1
10°	865.2	890.6	903.3	933.4	950.9
12.5°	814.4	843.0	862.0	900.1	925.5
15°	760.4	787.4	812.8	860.4	890.6
17.5°	706.4	733.4	760.4	812.8	844.5
20°	649.3	674.7	703.3	758.8	795.3
22.5°	589.0	615.9	644.5	701.7	746.1
25°	530.2	554.0	585.8	646.1	692.1
27.5°	468.3	492.1	527.0	589.0	638.2
30°	406.4	430.2	469.9	533.4	589.0
32.5°	344.5	369.9	412.7	482.6	538.2
35°	284.2	309.6	355.6	431.8	482.6
37.5°	225.4	254.0	304.8	379.4	427.0
40°	166.7	200.0	260.3	327.0	366.7
42.5°	111.1	152.4	219.1	274.6	308.0
45°	60.3	106.4	181.0	227.0	250.8
47.5°	33.3	68.3	144.5	181.0	195.3
50°	27.0	47.6	111.1	138.1	139.7
52.5°	22.2	42.9	82.5	98.4	90.5
55°	19.0	41.3	65.1	66.7	55.6
57.5°	15.9	39.7	54.0	47.6	47.6
60°	12.7	39.7	46.0	42.9	44.4
62.5°	9.5	39.7	41.3	38.1	39.7
65°	7.9	36.5	36.5	34.9	36.5
67.5°	7.9	33.3	33.3	31.7	33.3
70°	7.9	31.7	30.2	30.2	30.2
72.5°	6.3	28.6	28.6	27.0	27.0
75°	6.3	25.4	25.4	23.8	23.8
77.5°	6.3	23.8	23.8	22.2	20.6
80°	6.3	20.6	22.2	20.6	17.5
82.5°	6.3	19.0	20.6	19.0	14.3
85°	6.3	17.5	19.0	17.5	12.7
87.5°	4.8	17.5	17.5	14.3	9.5
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	7.80	9.02	8.16	9.33	9.64	9.81	11.04	10.18	11.35	11.66
	3H	9.33	10.42	9.71	10.75	11.12	11.79	12.87	12.17	13.20	13.57
	4H	9.89	10.90	10.29	11.25	11.63	12.70	13.71	13.11	14.07	14.45
	6H	10.44	11.37	10.86	11.74	12.14	13.59	14.52	14.00	14.89	15.28
	8H	10.73	11.61	11.16	12.00	12.41	13.99	14.87	14.42	15.26	15.67
	12H	11.09	11.93	11.52	12.31	12.74	14.43	15.27	14.87	15.66	16.09
4H	2H	8.98	9.99	9.38	10.34	10.73	10.43	11.45	10.84	11.80	12.18
	3H	11.18	12.01	11.59	12.42	12.82	12.68	13.51	13.09	13.92	14.32
	4H	12.23	12.98	12.67	13.40	13.84	13.75	14.50	14.19	14.92	15.36
	6H	13.12	13.77	13.59	14.22	14.68	14.86	15.51	15.33	15.96	16.42
	8H	13.50	14.11	13.98	14.56	15.03	15.38	15.99	15.86	16.44	16.91
	12H	13.92	14.46	14.41	14.94	15.42	15.96	16.50	16.45	16.98	17.46
8H	4H	13.03	13.64	13.50	14.09	14.56	14.24	14.85	14.71	15.30	15.77
	6H	14.41	14.91	14.91	15.40	15.89	15.64	16.14	16.14	16.63	17.12
	8H	15.13	15.57	15.65	16.09	16.58	16.38	16.82	16.90	17.34	17.83
	12H	15.88	16.27	16.39	16.77	17.34	17.21	17.61	17.73	18.10	18.67
12H	4H	13.19	13.73	13.68	14.21	14.69	14.34	14.88	14.83	15.36	15.84
	6H	14.74	15.19	15.26	15.70	16.20	15.86	16.30	16.38	16.82	17.31
	8H	15.65	16.05	16.17	16.54	17.12	16.74	17.13	17.26	17.63	18.20