

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: P1057984

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057984
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S485D850-X4F0-XX-UDD-WVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

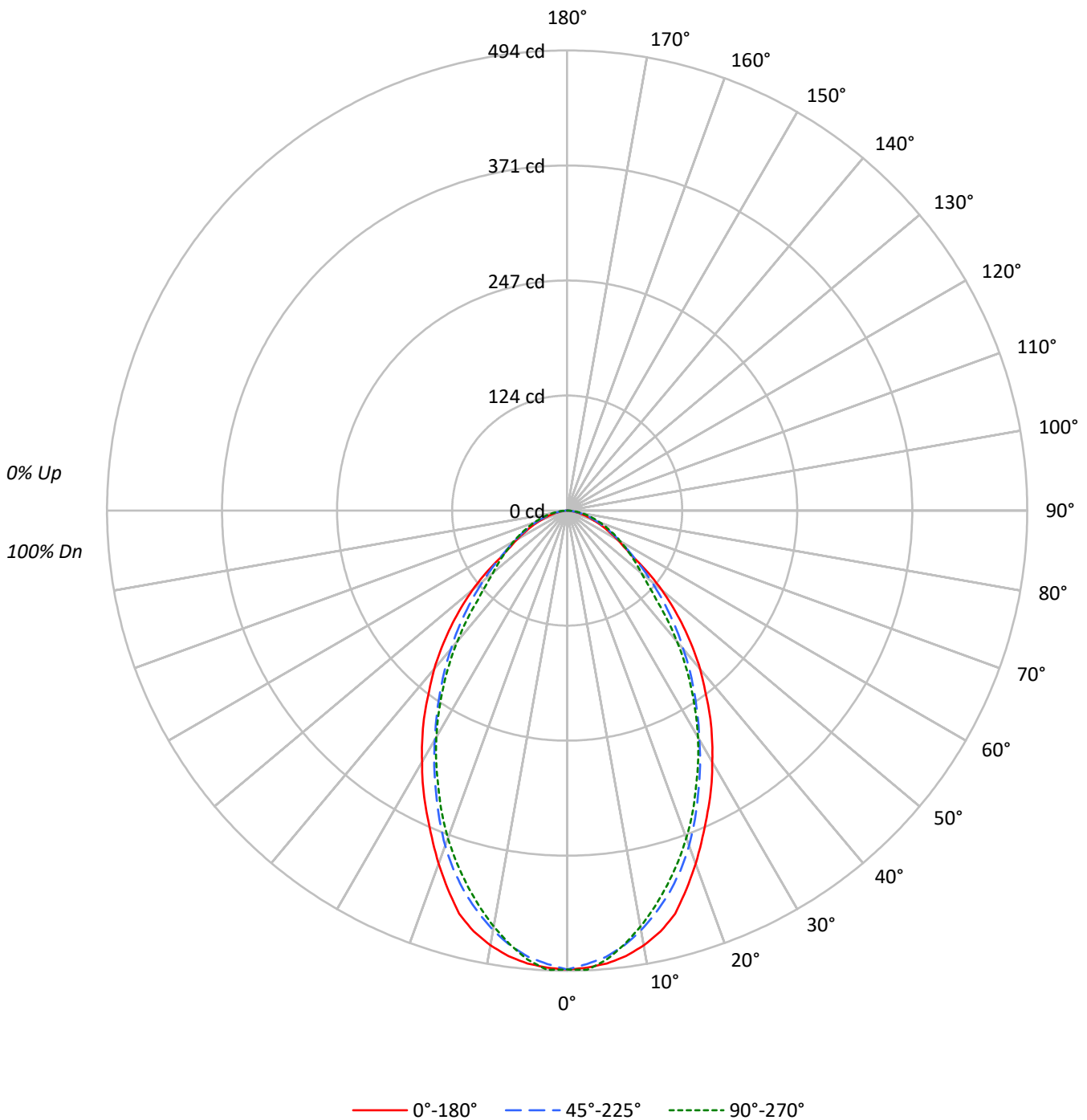
Lumens per Lamp: N/A
Luminaire Lumens: 748.3 lumens
Efficiency: N/A
Efficacy: 38.2 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9092	9092	9092
5°	9039	8908	8967
10°	8880	8570	8497
15°	8558	8107	7943
20°	7919	7519	7348
25°	7269	6788	6662
30°	6637	6051	5985
35°	6008	5355	5231
40°	5348	4668	4423
45°	4606	4014	3541
50°	3807	3379	2974
55°	2751	2802	2677
60°	2288	2403	2432
65°	1952	2091	2227
70°	1608	1861	2034
75°	1340	1568	1847
80°	999	1254	1668
85°	339	656	1503

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4606 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.5	6.1
10°-20°	119.9	16.0
20°-30°	155.2	20.7
30°-40°	152.2	20.3
40°-50°	119.9	16.0
50°-60°	78.6	10.5
60°-70°	47.8	6.4
70°-80°	23.9	3.2
80°-90°	5.1	0.7
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°	320.7	42.9
0°-40°	472.9	63.2
0°-60°	671.4	89.7
0°-90°	748.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	748.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	493	493	493	493	493	
5°	488	488	481	484	484	46
15°	448	442	424	419	416	125
25°	357	345	333	332	327	164
35°	267	252	238	237	232	166
45°	176	166	154	143	136	136
55°	86	90	87	84	83	81
65°	45	46	48	50	51	44
75°	19	20	22	25	26	20
85°	2	2	3	6	7	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	492.7	492.7	492.7	492.7	492.7
2.5°	491.1	491.9	487.2	491.9	493.5
5°	488.0	488.0	480.9	484.1	484.1
7.5°	482.5	481.7	470.7	470.7	469.9
10°	473.9	470.7	457.4	455.0	453.5
12.5°	462.9	457.4	441.7	437.8	435.4
15°	448.0	441.7	424.4	418.9	415.8
17.5°	426.0	419.7	404.8	398.5	395.4
20°	403.3	393.8	382.9	377.4	374.2
22.5°	379.7	368.7	358.5	354.6	351.5
25°	357.0	345.2	333.4	331.9	327.2
27.5°	335.0	320.9	309.1	308.3	304.4
30°	311.5	296.6	284.0	284.8	280.9
32.5°	289.5	275.4	260.5	261.3	256.5
35°	266.7	251.8	237.7	236.9	232.2
37.5°	243.2	229.1	215.7	212.6	207.9
40°	222.0	207.9	193.8	188.3	183.6
42.5°	199.3	186.7	174.2	165.5	159.3
45°	176.5	165.5	153.8	142.8	135.7
47.5°	154.6	145.9	135.7	122.4	117.7
50°	132.6	126.3	117.7	105.9	103.6
52.5°	109.8	107.5	102.0	94.1	93.4
55°	85.5	90.2	87.1	83.9	83.2
57.5°	72.2	73.0	75.3	74.5	74.5
60°	62.0	62.0	65.1	65.9	65.9
62.5°	52.6	53.3	56.5	58.1	58.1
65°	44.7	45.5	47.9	50.2	51.0
67.5°	36.9	38.4	40.8	43.1	43.9
70°	29.8	31.4	34.5	36.9	37.7
72.5°	24.3	25.1	28.2	30.6	31.4
75°	18.8	19.6	22.0	25.1	25.9
77.5°	13.3	14.9	17.3	19.6	21.2
80°	9.4	10.2	11.8	14.9	15.7
82.5°	5.5	6.3	7.8	10.2	11.0
85°	1.6	2.4	3.1	5.5	7.1
87.5°	0.0	0.0	0.0	1.6	3.1
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	13.79	15.19	14.16	15.50	15.82	13.97	15.36	14.33	15.68	15.99
	3H	14.93	16.17	15.30	16.50	16.86	15.43	16.67	15.81	17.00	17.37
	4H	15.28	16.44	15.68	16.79	17.17	15.97	17.13	16.37	17.48	17.87
	6H	15.46	16.53	15.87	16.90	17.29	16.38	17.46	16.80	17.82	18.22
	8H	15.49	16.50	15.92	16.89	17.30	16.51	17.53	16.94	17.92	18.32
	12H	15.47	16.44	15.90	16.83	17.26	16.60	17.57	17.03	17.95	18.38
4H	2H	14.25	15.42	14.65	15.77	16.15	14.40	15.56	14.80	15.91	16.29
	3H	15.59	16.55	16.00	16.95	17.35	16.07	17.03	16.48	17.43	17.83
	4H	16.03	16.89	16.47	17.31	17.75	16.73	17.59	17.17	18.01	18.45
	6H	16.30	17.05	16.77	17.49	17.96	17.27	18.01	17.73	18.46	18.92
	8H	16.35	17.04	16.82	17.49	17.96	17.44	18.13	17.90	18.58	19.05
	12H	16.34	16.96	16.83	17.44	17.91	17.56	18.17	18.04	18.66	19.13
8H	4H	16.25	16.94	16.72	17.39	17.86	16.88	17.58	17.35	18.02	18.49
	6H	16.59	17.16	17.09	17.66	18.14	17.51	18.08	18.01	18.58	19.06
	8H	16.67	17.18	17.19	17.70	18.19	17.75	18.26	18.27	18.77	19.26
	12H	16.69	17.14	17.20	17.63	18.20	17.93	18.38	18.45	18.88	19.45
12H	4H	16.26	16.88	16.74	17.36	17.83	16.87	17.49	17.35	17.97	18.44
	6H	16.62	17.13	17.14	17.64	18.13	17.51	18.02	18.03	18.53	19.02
	8H	16.74	17.19	17.25	17.68	18.25	17.78	18.23	18.30	18.73	19.30