

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: P1439665

Luminaire Tested: S122DR-H865D927-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439665
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G2-2602-702-1)
Test Lab: INNOVATION CENTER
Issue Date: 4/2/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122DR-H865D927-X4F0-XX-UDD-FLB-W
Description: DEFINE 2, DIRECT RECESSED WITH BATWING FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

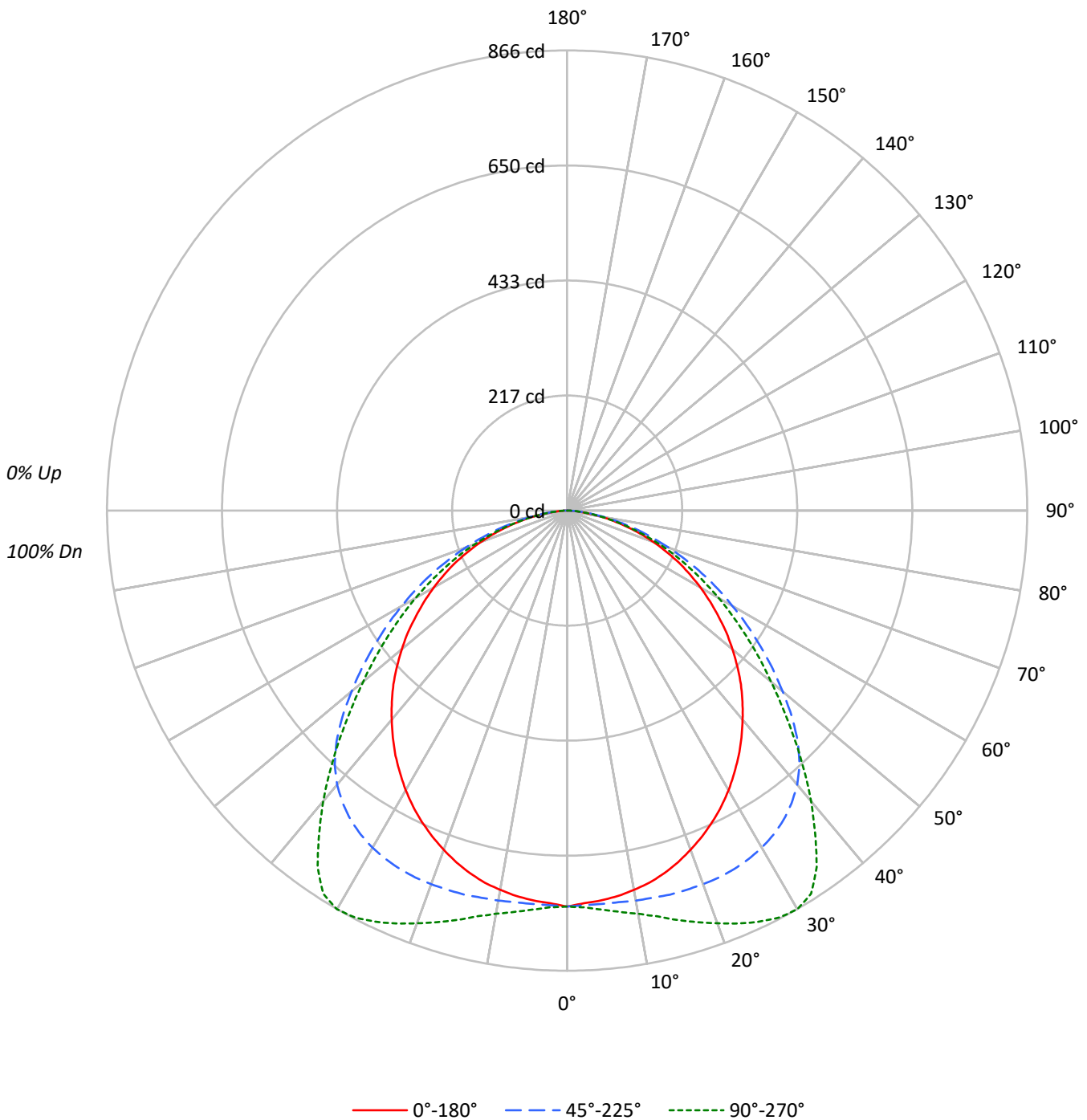
Lumens per Lamp: N/A
Luminaire Lumens: 2292.1 lumens
Efficiency: N/A
Efficacy: 74.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 30.9
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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CATALOG NUMBER: S122DR-H865D927-X4F0-XX-UDD-FLB-W

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	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85
2	100	91	85	79	97	90	84	78	86	81	76	83	79	75	80	76	73	71
3	91	80	72	66	88	79	71	66	76	70	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	61	53	47	59	52	47	57	51	46	44
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27
10	53	40	32	27	52	39	32	27	38	31	27	38	31	26	37	31	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14118	14118	14118
5°	14007	14136	14340
10°	13946	14336	14821
15°	13857	14675	15644
20°	13696	15085	16666
25°	13513	15559	17848
30°	13292	16027	18954
35°	13024	16431	18940
40°	12702	16657	17664
45°	12387	16435	16178
50°	11970	15595	14767
55°	11492	14629	13572
60°	10981	13622	12485
65°	10383	12557	11382
70°	9555	11217	10198
75°	8440	9721	8799
80°	6983	7714	6983
85°	4630	5065	4848

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 16566 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.3	3.1
10°-20°	212.9	9.3
20°-30°	345.4	15.1
30°-40°	437.0	19.1
40°-50°	437.7	19.1
50°-60°	366.6	16.0
60°-70°	258.3	11.3
70°-80°	133.3	5.8
80°-90°	29.6	1.3
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°	629.5	27.5
0°-40°	1066.6	46.5
0°-60°	1870.9	81.6
0°-90°	2292.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2292.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	745	745	745	745	745	
5°	736	749	743	747	754	70
15°	706	727	748	778	798	199
25°	646	681	744	817	854	298
35°	563	609	710	802	819	352
45°	462	511	613	618	604	356
55°	348	391	443	424	411	311
65°	232	258	280	263	254	229
75°	115	127	133	123	120	123
85°	21	23	23	23	22	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	745.2	745.2	745.2	745.2	745.2
2.5°	739.4	751.1	743.3	744.3	747.2
5°	736.5	749.1	743.3	747.2	754.0
7.5°	731.7	745.2	743.3	751.1	761.7
10°	724.9	740.4	745.2	758.8	770.4
12.5°	717.1	733.6	746.2	767.5	782.1
15°	706.5	726.8	748.2	778.2	797.6
17.5°	693.9	718.1	748.2	789.8	812.1
20°	679.3	707.4	748.2	799.5	826.6
22.5°	663.8	694.9	747.2	808.2	841.2
25°	646.4	681.3	744.3	817.0	853.8
27.5°	628.0	665.8	739.4	823.7	863.5
30°	607.6	648.3	732.6	826.6	866.4
32.5°	585.3	629.9	723.0	820.8	854.8
35°	563.1	608.6	710.4	802.4	818.9
37.5°	538.8	586.3	693.9	766.6	766.6
40°	513.6	562.1	673.5	717.1	714.2
42.5°	488.4	536.9	647.4	668.7	659.0
45°	462.3	510.7	613.4	618.3	603.8
47.5°	434.2	481.6	573.7	566.9	550.5
50°	406.1	452.6	529.1	517.5	501.0
52.5°	378.0	422.5	486.5	470.0	455.5
55°	347.9	390.6	442.9	424.5	410.9
57.5°	318.8	358.6	401.2	380.9	369.2
60°	289.8	325.6	359.5	340.2	329.5
62.5°	260.7	291.7	319.8	300.4	290.7
65°	231.6	257.8	280.1	262.6	253.9
67.5°	201.6	224.8	240.3	224.8	219.0
70°	172.5	190.9	202.5	189.0	184.1
72.5°	143.4	158.9	166.7	156.0	151.2
75°	115.3	127.0	132.8	123.1	120.2
77.5°	88.2	96.9	99.8	93.0	89.2
80°	64.0	68.8	70.7	65.9	64.0
82.5°	39.7	43.6	45.5	41.7	40.7
85°	21.3	23.3	23.3	23.3	22.3
87.5°	7.8	9.7	9.7	9.7	8.7
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	20.68	22.30	21.05	22.61	22.92	21.20	22.81	21.56	23.12	23.44
	3H	22.25	23.71	22.63	24.03	24.39	22.66	24.12	23.04	24.44	24.80
	4H	22.79	24.16	23.19	24.50	24.88	23.16	24.52	23.56	24.87	25.25
	6H	23.13	24.40	23.54	24.76	25.15	23.46	24.72	23.87	25.09	25.48
	8H	23.22	24.42	23.64	24.81	25.21	23.53	24.74	23.96	25.13	25.53
	12H	23.25	24.41	23.68	24.79	25.22	23.57	24.72	24.00	25.10	25.53
4H	2H	21.44	22.80	21.84	23.15	23.53	21.84	23.20	22.23	23.55	23.93
	3H	23.21	24.35	23.62	24.75	25.15	23.50	24.64	23.91	25.04	25.44
	4H	23.86	24.88	24.29	25.30	25.73	24.10	25.12	24.53	25.54	25.97
	6H	24.30	25.20	24.75	25.64	26.09	24.49	25.39	24.95	25.83	26.29
	8H	24.41	25.25	24.87	25.69	26.16	24.59	25.43	25.05	25.87	26.34
	12H	24.47	25.22	24.95	25.70	26.17	24.65	25.40	25.13	25.88	26.35
8H	4H	24.14	24.98	24.60	25.42	25.88	24.35	25.19	24.82	25.63	26.10
	6H	24.68	25.37	25.17	25.86	26.34	24.84	25.53	25.33	26.02	26.50
	8H	24.84	25.46	25.35	25.97	26.45	24.98	25.60	25.49	26.11	26.60
	12H	24.94	25.49	25.45	25.98	26.54	25.08	25.63	25.59	26.12	26.69
12H	4H	24.15	24.91	24.63	25.38	25.85	24.37	25.12	24.85	25.60	26.07
	6H	24.71	25.33	25.22	25.84	26.32	24.86	25.49	25.38	26.00	26.48
	8H	24.91	25.46	25.42	25.95	26.51	25.05	25.60	25.56	26.10	26.66