

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: P1439656

Luminaire Tested: S122DR-H675D927-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439656
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-H675D927-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

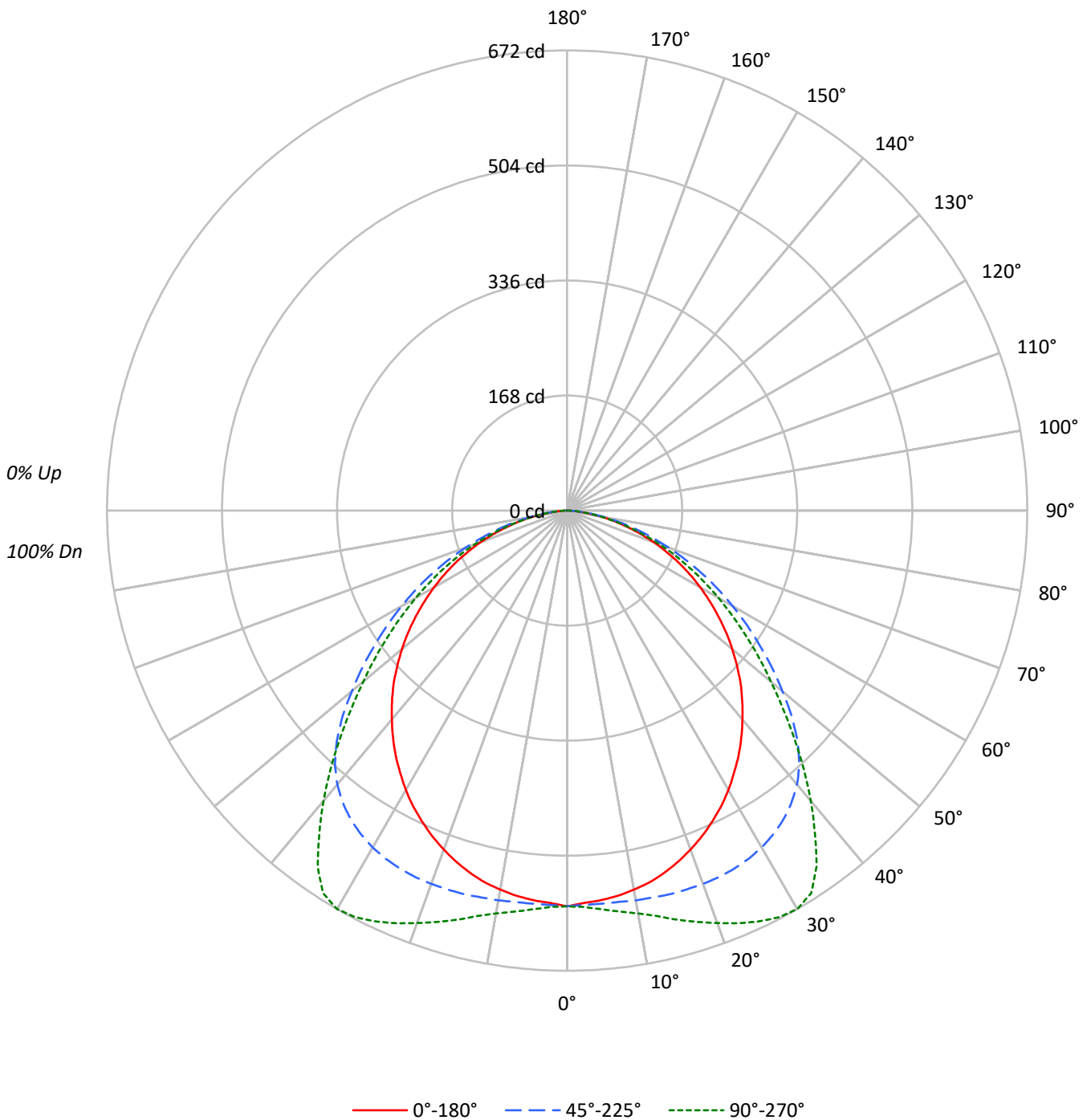
Lumens per Lamp: N/A
Luminaire Lumens: 1777.3 lumens
Efficiency: N/A
Efficacy: 74.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 23.8
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	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°	10949	10949	10949
5°	10861	10962	11118
10°	10814	11118	11493
15°	10745	11378	12131
20°	10621	11696	12924
25°	10477	12064	13839
30°	10308	12428	14697
35°	10098	12739	14687
40°	9851	12918	13697
45°	9603	12746	12545
50°	9282	12093	11451
55°	8912	11343	10524
60°	8514	10564	9681
65°	8051	9737	8827
70°	7412	8702	7910
75°	6544	7532	6822
80°	5412	5990	5412
85°	3587	3913	3761

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 12845 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.3	3.1
10°-20°	165.1	9.3
20°-30°	267.8	15.1
30°-40°	338.9	19.1
40°-50°	339.4	19.1
50°-60°	284.3	16.0
60°-70°	200.3	11.3
70°-80°	103.3	5.8
80°-90°	22.9	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°	488.2	27.5
0°-40°	827.0	46.5
0°-60°	1450.7	81.6
0°-90°	1777.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1777.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	578	578	578	578	578	
5°	571	581	576	579	585	54
15°	548	564	580	603	618	154
25°	501	528	577	634	662	231
35°	437	472	551	622	635	273
45°	358	396	476	479	468	276
55°	270	303	343	329	319	241
65°	180	200	217	204	197	177
75°	89	98	103	95	93	95
85°	16	18	18	18	17	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	577.9	577.9	577.9	577.9	577.9
2.5°	573.4	582.4	576.4	577.1	579.4
5°	571.1	580.9	576.4	579.4	584.6
7.5°	567.4	577.9	576.4	582.4	590.6
10°	562.1	574.1	577.9	588.4	597.4
12.5°	556.1	568.9	578.6	595.2	606.4
15°	547.8	563.6	580.1	603.4	618.5
17.5°	538.0	556.8	580.1	612.4	629.7
20°	526.8	548.6	580.1	620.0	641.0
22.5°	514.7	538.8	579.4	626.7	652.3
25°	501.2	528.3	577.1	633.5	662.0
27.5°	486.9	516.3	573.4	638.7	669.5
30°	471.2	502.7	568.1	641.0	671.8
32.5°	453.9	488.4	560.6	636.5	662.8
35°	436.6	471.9	550.8	622.2	635.0
37.5°	417.8	454.6	538.0	594.4	594.4
40°	398.3	435.8	522.3	556.1	553.8
42.5°	378.7	416.3	502.0	518.5	511.0
45°	358.4	396.0	475.7	479.4	468.2
47.5°	336.7	373.5	444.9	439.6	426.8
50°	314.9	350.9	410.3	401.3	388.5
52.5°	293.1	327.6	377.2	364.5	353.2
55°	269.8	302.8	343.4	329.1	318.6
57.5°	247.2	278.0	311.1	295.3	286.3
60°	224.7	252.5	278.8	263.8	255.5
62.5°	202.1	226.2	248.0	233.0	225.4
65°	179.6	199.9	217.2	203.6	196.9
67.5°	156.3	174.3	186.4	174.3	169.8
70°	133.8	148.0	157.1	146.5	142.8
72.5°	111.2	123.2	129.3	121.0	117.2
75°	89.4	98.4	102.9	95.4	93.2
77.5°	68.4	75.1	77.4	72.1	69.1
80°	49.6	53.4	54.9	51.1	49.6
82.5°	30.8	33.8	35.3	32.3	31.6
85°	16.5	18.0	18.0	18.0	17.3
87.5°	6.0	7.5	7.5	7.5	6.8
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	19.80	21.41	20.16	21.73	22.04	20.31	21.92	20.68	22.24	22.55
	3H	21.37	22.82	21.75	23.15	23.51	21.78	23.23	22.16	23.56	23.92
	4H	21.91	23.27	22.30	23.62	24.00	22.27	23.64	22.67	23.99	24.36
	6H	22.25	23.51	22.66	23.88	24.27	22.57	23.84	22.98	24.20	24.59
	8H	22.33	23.54	22.76	23.93	24.33	22.65	23.85	23.07	24.24	24.64
	12H	22.37	23.52	22.80	23.91	24.33	22.68	23.84	23.11	24.22	24.65
4H	2H	20.55	21.92	20.95	22.27	22.64	20.95	22.32	21.35	22.67	23.04
	3H	22.33	23.46	22.73	23.86	24.26	22.62	23.76	23.03	24.16	24.56
	4H	22.97	24.00	23.40	24.41	24.85	23.21	24.24	23.64	24.65	25.09
	6H	23.41	24.31	23.87	24.75	25.21	23.61	24.50	24.06	24.95	25.40
	8H	23.52	24.36	23.99	24.80	25.27	23.71	24.55	24.17	24.99	25.45
	12H	23.59	24.34	24.07	24.81	25.28	23.77	24.52	24.25	25.00	25.46
8H	4H	23.25	24.09	23.71	24.53	25.00	23.47	24.31	23.93	24.75	25.22
	6H	23.79	24.49	24.29	24.98	25.45	23.95	24.65	24.45	25.14	25.61
	8H	23.95	24.58	24.46	25.08	25.57	24.10	24.72	24.61	25.23	25.71
	12H	24.06	24.61	24.56	25.10	25.66	24.20	24.75	24.71	25.24	25.80
12H	4H	23.27	24.02	23.75	24.50	24.97	23.49	24.24	23.97	24.71	25.18
	6H	23.82	24.45	24.33	24.95	25.44	23.98	24.60	24.49	25.11	25.60
	8H	24.03	24.58	24.53	25.07	25.63	24.17	24.72	24.68	25.21	25.77