

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: P1217265

Luminaire Tested: S122DRP-H290D830-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217265
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G3-2511-596-2)
Test Lab: INNOVATION CENTER
Issue Date: 4/9/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122DRP-H290D830-X4F0-XX-UDD-G-W
Description: DEFINE 2, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

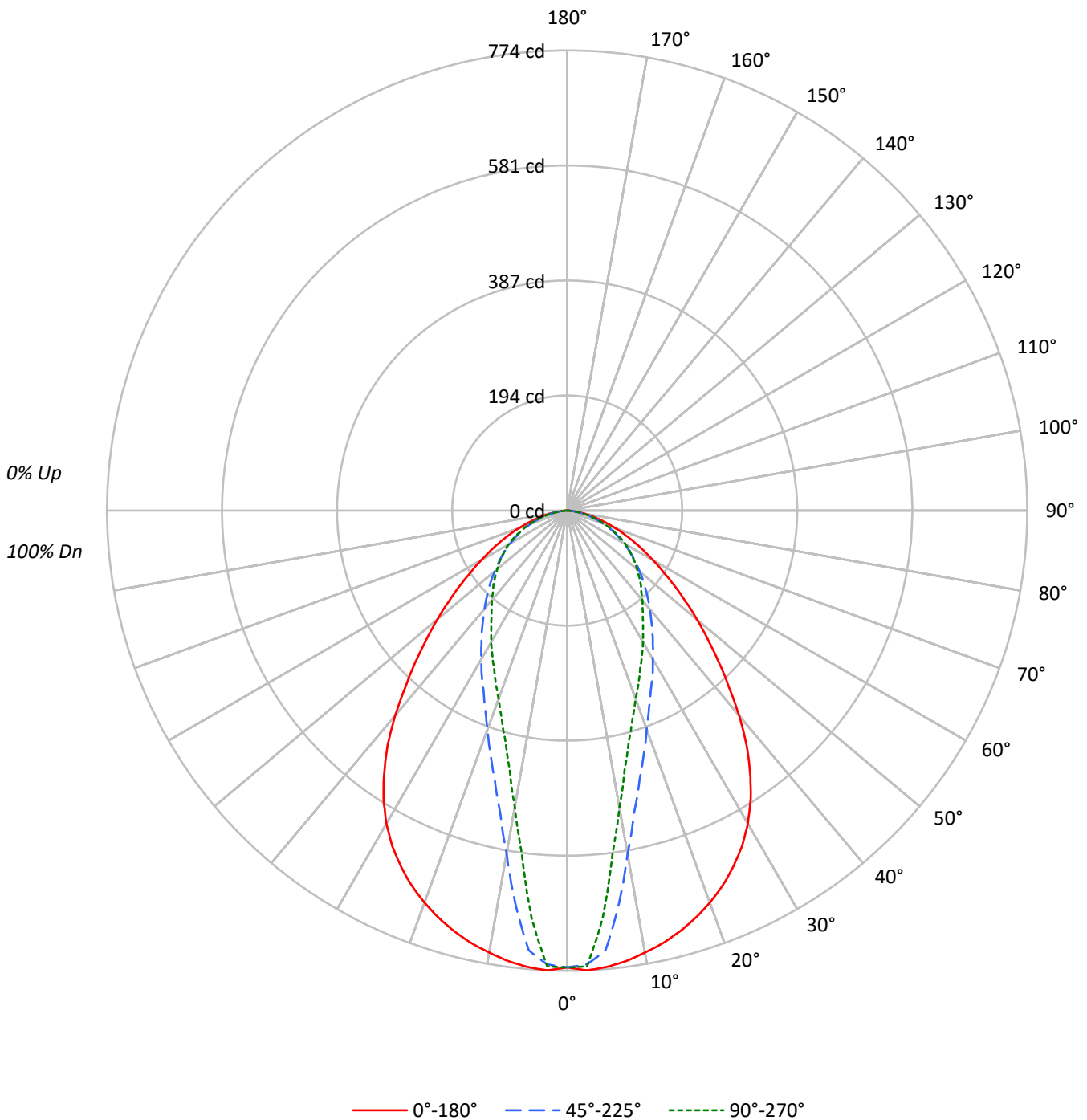
Lumens per Lamp: N/A
Luminaire Lumens: 1032.7 lumens
Efficiency: N/A
Efficacy: 88.3 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.5 / 0.8
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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				100
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89				87	
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77				75	
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67				65	
4	86	76	68	62	84	74	67	61	72	65	60	70	64	60	68	63	59				57	
5	80	69	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52				50	
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47				45	
7	70	57	49	44	68	57	49	44	55	48	43	54	48	43	52	47	43				41	
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39				37	
9	62	49	41	36	60	49	41	36	47	41	36	46	40	36	45	40	36				34	
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	43	37	33				31	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14560	14560	14560
5°	14654	14119	13075
10°	14523	11275	9748
15°	14373	9215	7871
20°	14145	7889	6788
25°	13820	6963	6092
30°	13295	6314	5587
35°	12406	5787	5137
40°	11124	5345	4867
45°	9678	4994	4694
50°	8400	4692	4524
55°	7270	4436	4410
60°	6305	4176	4301
65°	5519	3918	4062
70°	4753	3595	3728
75°	3960	3170	3287
80°	3109	2586	2499
85°	1913	1652	1652

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9678 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.2	6.4
10°-20°	145.9	14.1
20°-30°	179.0	17.3
30°-40°	185.0	17.9
40°-50°	167.1	16.2
50°-60°	135.4	13.1
60°-70°	94.9	9.2
70°-80°	49.0	4.7
80°-90°	10.3	1.0
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°	391.1	37.9
0°-40°	576.1	55.8
0°-60°	878.5	85.1
0°-90°	1032.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1032.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	768	768	768	768	768	
5°	770	769	742	709	688	73
15°	733	618	470	419	401	206
25°	661	439	333	302	291	304
35°	536	324	250	229	222	333
45°	361	234	186	176	175	279
55°	220	160	134	133	134	198
65°	123	99	87	89	91	123
75°	54	46	43	44	45	58
85°	9	8	8	8	8	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	768.5	768.5	768.5	768.5	768.5
2.5°	774.1	771.3	764.1	770.9	767.3
5°	770.5	768.9	742.4	709.2	687.5
7.5°	764.1	758.5	667.1	604.1	582.9
10°	754.9	726.8	586.1	527.6	506.7
12.5°	745.2	679.1	520.8	465.8	447.0
15°	732.8	617.8	469.8	418.9	401.3
17.5°	718.4	564.4	429.3	380.4	366.4
20°	701.6	518.3	391.3	348.4	336.7
22.5°	683.1	479.5	359.6	324.7	313.9
25°	661.1	439.0	333.1	301.5	291.4
27.5°	636.6	408.1	311.1	281.4	273.0
30°	607.7	378.0	288.6	262.2	255.4
32.5°	574.9	350.0	268.6	245.3	237.3
35°	536.4	324.3	250.2	228.9	222.1
37.5°	495.5	299.1	232.5	214.1	208.5
40°	449.8	277.0	216.1	199.6	196.8
42.5°	402.9	255.0	201.2	187.2	184.8
45°	361.2	233.7	186.4	176.0	175.2
47.5°	320.7	214.5	172.8	164.8	164.0
50°	285.0	194.4	159.2	153.9	153.5
52.5°	251.0	176.8	146.3	143.5	144.3
55°	220.1	160.0	134.3	132.7	133.5
57.5°	191.6	144.3	122.3	122.7	123.9
60°	166.4	128.3	110.2	111.8	113.5
62.5°	144.3	113.5	98.6	101.0	102.6
65°	123.1	98.6	87.4	89.4	90.6
67.5°	104.2	84.6	76.2	78.6	79.0
70°	85.8	71.8	64.9	67.3	67.3
72.5°	69.8	58.5	54.1	55.3	55.7
75°	54.1	46.5	43.3	44.5	44.9
77.5°	40.9	35.3	32.9	34.1	33.7
80°	28.5	24.9	23.7	23.3	22.9
82.5°	17.6	15.6	14.4	14.8	14.4
85°	8.8	7.6	7.6	7.6	7.6
87.5°	2.8	2.8	2.8	2.8	2.8
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	17.80	19.30	18.17	19.62	19.93	16.30	17.80	16.67	18.12	18.43
	3H	19.39	20.74	19.77	21.06	21.43	18.01	19.36	18.39	19.69	20.05
	4H	19.91	21.18	20.31	21.52	21.90	18.59	19.86	18.99	20.21	20.58
	6H	20.24	21.41	20.65	21.77	22.17	18.94	20.11	19.36	20.48	20.87
	8H	20.31	21.42	20.74	21.81	22.22	19.02	20.13	19.45	20.52	20.92
	12H	20.34	21.40	20.77	21.79	22.21	19.05	20.11	19.48	20.49	20.92
4H	2H	18.11	19.37	18.51	19.72	20.10	16.86	18.12	17.26	18.47	18.85
	3H	19.89	20.94	20.30	21.34	21.74	18.78	19.83	19.19	20.23	20.63
	4H	20.52	21.47	20.95	21.88	22.32	19.47	20.42	19.91	20.83	21.27
	6H	20.96	21.78	21.42	22.22	22.68	19.93	20.75	20.38	21.19	21.65
	8H	21.06	21.83	21.53	22.27	22.74	20.03	20.79	20.49	21.24	21.71
	12H	21.11	21.80	21.60	22.28	22.75	20.08	20.77	20.56	21.24	21.72
8H	4H	20.67	21.44	21.14	21.88	22.35	19.71	20.48	20.18	20.92	21.39
	6H	21.18	21.81	21.68	22.30	22.78	20.25	20.88	20.75	21.38	21.85
	8H	21.33	21.89	21.84	22.40	22.89	20.40	20.97	20.92	21.48	21.97
	12H	21.42	21.91	21.93	22.41	22.97	20.50	21.00	21.01	21.49	22.05
12H	4H	20.67	21.35	21.15	21.83	22.30	19.73	20.41	20.21	20.89	21.36
	6H	21.18	21.75	21.70	22.26	22.75	20.27	20.84	20.79	21.35	21.84
	8H	21.37	21.86	21.88	22.36	22.92	20.47	20.96	20.98	21.46	22.02