

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: P1217312

Luminaire Tested: S122DRP-S290D840-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217312
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-S290D840-X4F0-XX-UDD-G-W
Description: DEFINE 2, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

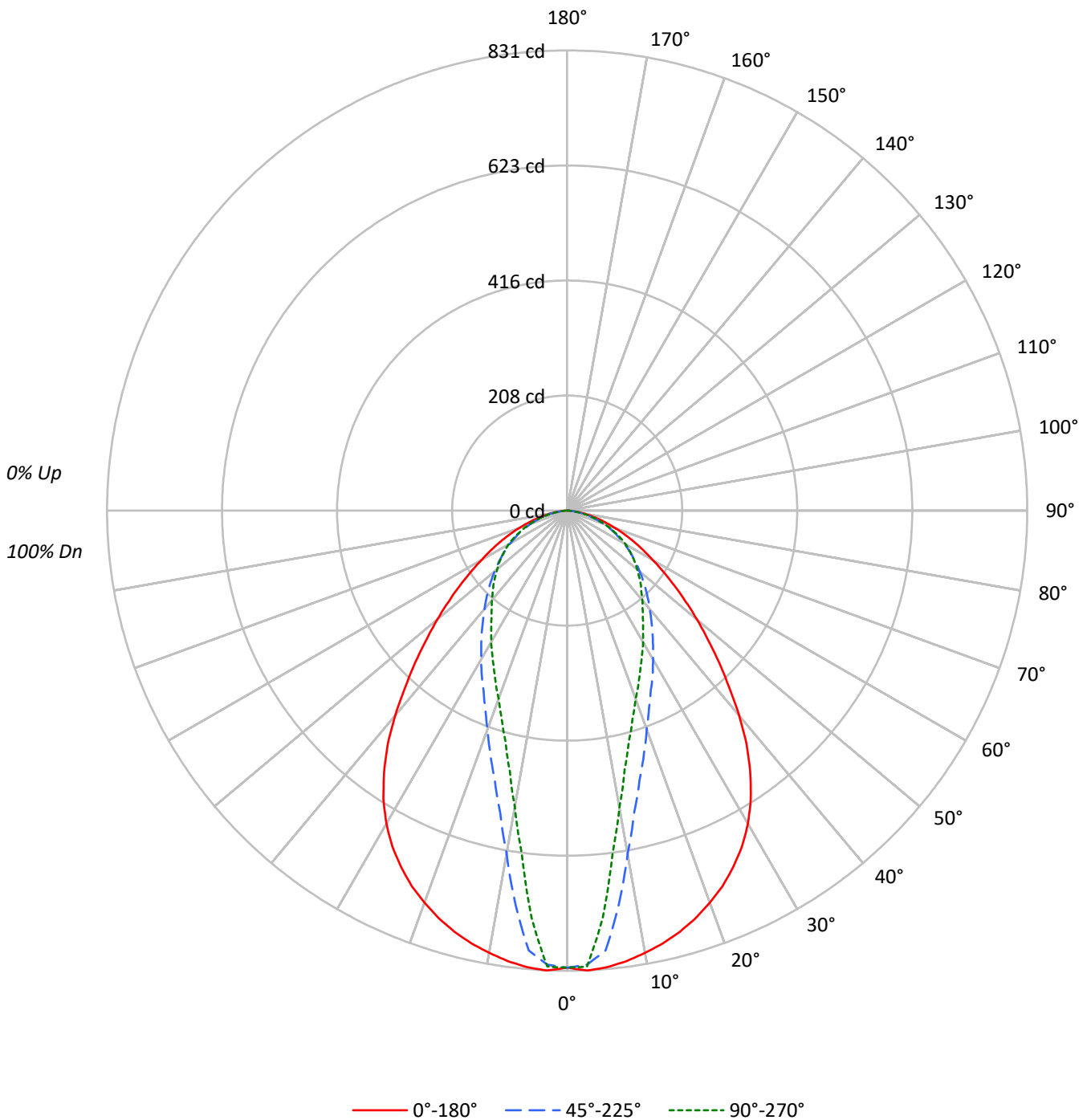
Lumens per Lamp: N/A
Luminaire Lumens: 1109.2 lumens
Efficiency: N/A
Efficacy: 88.0 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.5 / 0.8
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 12.6
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	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					87			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75					75			
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65					65			
4	86	76	68	62	84	74	67	61	72	65	60	70	64	60	68	63	59	57					57			
5	80	69	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	50					50			
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45					45			
7	70	57	49	44	68	57	49	44	55	48	43	54	48	43	52	47	43	41					41			
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37					37			
9	62	49	41	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34					34			
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	43	37	33	31					31			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15638	15638	15638
5°	15739	15165	14043
10°	15598	12110	10469
15°	15438	9897	8454
20°	15192	8472	7293
25°	14842	7480	6543
30°	14281	6782	6001
35°	13324	6215	5516
40°	11948	5740	5228
45°	10393	5364	5043
50°	9022	5037	4860
55°	7809	4763	4737
60°	6771	4486	4619
65°	5926	4210	4362
70°	5102	3866	4005
75°	4253	3404	3528
80°	3339	2771	2673
85°	2065	1783	1783

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10393 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.1	6.4
10°-20°	156.7	14.1
20°-30°	192.3	17.3
30°-40°	198.7	17.9
40°-50°	179.4	16.2
50°-60°	145.4	13.1
60°-70°	101.9	9.2
70°-80°	52.6	4.7
80°-90°	11.1	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°	420.0	37.9
0°-40°	618.7	55.8
0°-60°	943.6	85.1
0°-90°	1109.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1109.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	825	825	825	825	825	
5°	828	826	797	762	738	78
15°	787	664	505	450	431	222
25°	710	472	358	324	313	326
35°	576	348	269	246	238	358
45°	388	251	200	189	188	300
55°	236	172	144	142	143	213
65°	132	106	94	96	97	132
75°	58	50	46	48	48	63
85°	10	8	8	8	8	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	825.4	825.4	825.4	825.4	825.4
2.5°	831.4	828.4	820.7	828.0	824.1
5°	827.6	825.8	797.4	761.7	738.4
7.5°	820.7	814.6	716.5	648.9	626.1
10°	810.8	780.6	629.5	566.6	544.2
12.5°	800.4	729.4	559.3	500.3	480.1
15°	787.1	663.5	504.6	450.0	431.0
17.5°	771.6	606.3	461.1	408.6	393.5
20°	753.5	556.7	420.2	374.2	361.7
22.5°	733.7	515.0	386.2	348.8	337.1
25°	710.0	471.5	357.8	323.8	313.0
27.5°	683.8	438.3	334.1	302.3	293.2
30°	652.8	406.0	310.0	281.6	274.3
32.5°	617.4	375.9	288.5	263.5	254.9
35°	576.1	348.3	268.7	245.9	238.5
37.5°	532.2	321.2	249.7	229.9	223.9
40°	483.1	297.5	232.1	214.4	211.4
42.5°	432.7	273.8	216.1	201.1	198.5
45°	387.9	251.0	200.2	189.0	188.2
47.5°	344.5	230.4	185.6	177.0	176.1
50°	306.1	208.8	170.9	165.3	164.9
52.5°	269.5	189.9	157.2	154.1	155.0
55°	236.4	171.8	144.2	142.5	143.4
57.5°	205.8	155.0	131.3	131.8	133.0
60°	178.7	137.8	118.4	120.1	121.9
62.5°	155.0	121.9	105.9	108.5	110.2
65°	132.2	105.9	93.9	96.0	97.3
67.5°	111.9	90.9	81.8	84.4	84.8
70°	92.1	77.1	69.8	72.3	72.3
72.5°	74.9	62.9	58.1	59.4	59.9
75°	58.1	49.9	46.5	47.8	48.2
77.5°	43.9	37.9	35.3	36.6	36.2
80°	30.6	26.7	25.4	25.0	24.5
82.5°	18.9	16.8	15.5	15.9	15.5
85°	9.5	8.2	8.2	8.2	8.2
87.5°	3.0	3.0	3.0	3.0	3.0
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	18.05	19.55	18.42	19.86	20.18	16.55	18.05	16.92	18.36	18.68
	3H	19.64	20.98	20.02	21.31	21.67	18.26	19.61	18.64	19.94	20.30
	4H	20.16	21.42	20.56	21.77	22.15	18.84	20.10	19.24	20.45	20.83
	6H	20.49	21.65	20.90	22.02	22.41	19.19	20.36	19.60	20.72	21.12
	8H	20.56	21.67	20.99	22.06	22.46	19.27	20.38	19.69	20.77	21.17
	12H	20.59	21.65	21.02	22.03	22.46	19.30	20.36	19.73	20.74	21.17
4H	2H	18.36	19.62	18.76	19.97	20.35	17.11	18.37	17.51	18.72	19.10
	3H	20.14	21.19	20.55	21.59	21.99	19.03	20.07	19.44	20.47	20.88
	4H	20.77	21.71	21.20	22.13	22.57	19.72	20.66	20.15	21.08	21.52
	6H	21.21	22.02	21.66	22.47	22.93	20.17	20.99	20.63	21.44	21.90
	8H	21.31	22.08	21.77	22.52	22.99	20.28	21.04	20.74	21.49	21.95
	12H	21.36	22.05	21.85	22.52	23.00	20.33	21.01	20.81	21.49	21.96
8H	4H	20.92	21.69	21.38	22.13	22.60	19.96	20.73	20.43	21.17	21.64
	6H	21.43	22.06	21.92	22.55	23.03	20.50	21.13	21.00	21.62	22.10
	8H	21.57	22.14	22.09	22.65	23.14	20.65	21.21	21.16	21.73	22.21
	12H	21.66	22.16	22.17	22.65	23.22	20.75	21.24	21.26	21.74	22.30
12H	4H	20.92	21.60	21.40	22.08	22.55	19.97	20.66	20.46	21.14	21.61
	6H	21.43	22.00	21.94	22.51	22.99	20.52	21.09	21.04	21.60	22.09
	8H	21.61	22.11	22.12	22.60	23.17	20.71	21.21	21.22	21.70	22.27