

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: P1217310

Luminaire Tested: S122DRP-S290D830-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217310
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-S290D830-X4F0-XX-UDD-G-W
Description: DEFINE 2, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

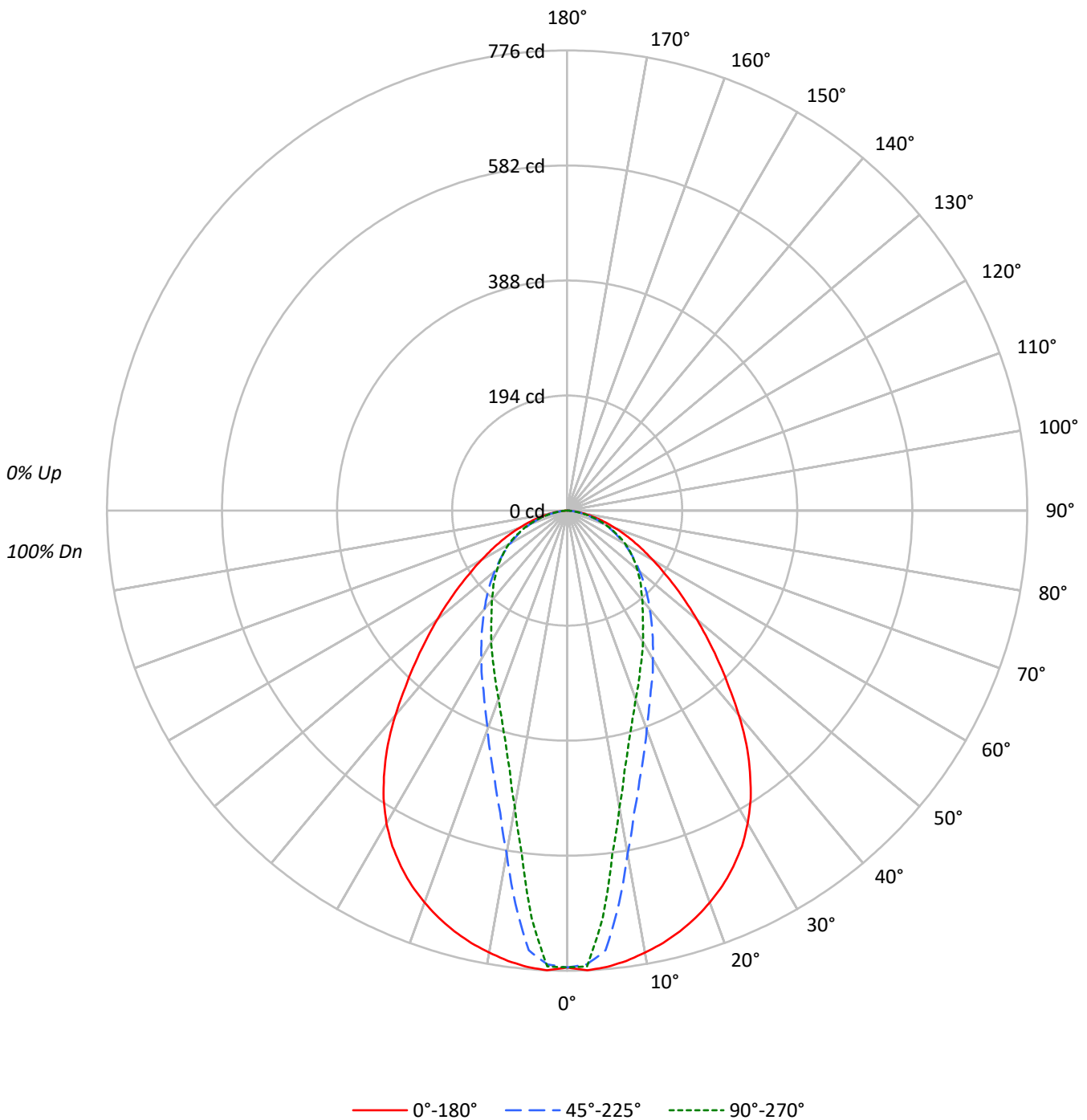
Lumens per Lamp: N/A
Luminaire Lumens: 1035.3 lumens
Efficiency: N/A
Efficacy: 82.2 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.5 / 0.8
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14596	14596	14596
5°	14690	14155	13107
10°	14557	11302	9773
15°	14409	9238	7891
20°	14180	7907	6807
25°	13853	6982	6108
30°	13327	6329	5600
35°	12436	5801	5148
40°	11152	5357	4880
45°	9702	5008	4705
50°	8421	4701	4536
55°	7287	4446	4420
60°	6320	4187	4308
65°	5532	3927	4071
70°	4764	3606	3739
75°	3975	3177	3294
80°	3109	2586	2499
85°	1913	1652	1652

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9702 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.3	6.4
10°-20°	146.3	14.1
20°-30°	179.4	17.3
30°-40°	185.4	17.9
40°-50°	167.5	16.2
50°-60°	135.7	13.1
60°-70°	95.2	9.2
70°-80°	49.1	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°	392.0	37.9
0°-40°	577.5	55.8
0°-60°	880.7	85.1
0°-90°	1035.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1035.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	770	770	770	770	770	
5°	772	771	744	711	689	73
15°	735	619	471	420	402	207
25°	663	440	334	302	292	304
35°	538	325	251	230	223	334
45°	362	234	187	176	176	280
55°	221	160	135	133	134	199
65°	123	99	88	90	91	123
75°	54	47	43	45	45	59
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°	770.4	770.4	770.4	770.4	770.4
2.5°	776.0	773.2	766.0	772.8	769.2
5°	772.4	770.8	744.3	710.9	689.2
7.5°	766.0	760.3	668.7	605.6	584.3
10°	756.7	728.6	587.5	528.9	508.0
12.5°	747.1	680.8	522.0	467.0	448.1
15°	734.6	619.3	471.0	420.0	402.3
17.5°	720.2	565.8	430.4	381.4	367.3
20°	703.3	519.6	392.2	349.2	337.6
22.5°	684.8	480.6	360.5	325.5	314.7
25°	662.7	440.0	334.0	302.2	292.2
27.5°	638.2	409.1	311.9	282.1	273.7
30°	609.2	379.0	289.3	262.8	256.0
32.5°	576.3	350.8	269.3	245.9	237.9
35°	537.7	325.1	250.8	229.5	222.6
37.5°	496.7	299.8	233.1	214.6	209.0
40°	450.9	277.7	216.6	200.1	197.3
42.5°	403.9	255.6	201.7	187.7	185.3
45°	362.1	234.3	186.9	176.4	175.6
47.5°	321.5	215.0	173.2	165.2	164.4
50°	285.7	194.9	159.5	154.3	153.9
52.5°	251.6	177.2	146.7	143.9	144.7
55°	220.6	160.3	134.6	133.0	133.8
57.5°	192.1	144.7	122.6	123.0	124.2
60°	166.8	128.6	110.5	112.1	113.7
62.5°	144.7	113.7	98.9	101.3	102.9
65°	123.4	98.9	87.6	89.6	90.8
67.5°	104.5	84.8	76.4	78.8	79.2
70°	86.0	71.9	65.1	67.5	67.5
72.5°	69.9	58.7	54.3	55.5	55.9
75°	54.3	46.6	43.4	44.6	45.0
77.5°	41.0	35.4	33.0	34.2	33.8
80°	28.5	24.9	23.7	23.3	22.9
82.5°	17.7	15.7	14.5	14.9	14.5
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	17.81	19.31	18.18	19.63	19.94	16.31	17.81	16.68	18.12	18.44
	3H	19.40	20.74	19.78	21.07	21.43	18.02	19.37	18.40	19.70	20.06
	4H	19.92	21.19	20.32	21.53	21.91	18.60	19.87	19.00	20.21	20.59
	6H	20.25	21.42	20.66	21.78	22.17	18.95	20.12	19.36	20.48	20.88
	8H	20.32	21.43	20.75	21.82	22.22	19.03	20.14	19.45	20.53	20.93
	12H	20.35	21.41	20.78	21.79	22.22	19.06	20.12	19.49	20.50	20.93
4H	2H	18.12	19.38	18.52	19.73	20.11	16.87	18.13	17.27	18.48	18.86
	3H	19.90	20.95	20.31	21.35	21.75	18.79	19.84	19.20	20.24	20.64
	4H	20.53	21.47	20.96	21.89	22.33	19.48	20.43	19.91	20.84	21.28
	6H	20.97	21.79	21.42	22.23	22.69	19.93	20.75	20.39	21.20	21.66
	8H	21.07	21.84	21.54	22.28	22.75	20.04	20.80	20.50	21.25	21.72
	12H	21.12	21.81	21.61	22.29	22.76	20.09	20.78	20.57	21.25	21.73
8H	4H	20.68	21.45	21.15	21.89	22.36	19.72	20.49	20.19	20.93	21.40
	6H	21.19	21.82	21.69	22.31	22.79	20.26	20.89	20.76	21.38	21.86
	8H	21.34	21.90	21.85	22.41	22.90	20.41	20.98	20.93	21.49	21.98
	12H	21.42	21.92	21.93	22.41	22.98	20.51	21.00	21.02	21.50	22.06
12H	4H	20.68	21.36	21.16	21.84	22.31	19.73	20.42	20.22	20.90	21.37
	6H	21.19	21.76	21.70	22.27	22.76	20.28	20.85	20.80	21.36	21.85
	8H	21.38	21.87	21.89	22.37	22.93	20.48	20.97	20.99	21.47	22.03