

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: P1217267

Luminaire Tested: S122DRP-H290D840-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217267
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-H290D840-X4F0-XX-UDD-G-W
Description: DEFINE 2, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

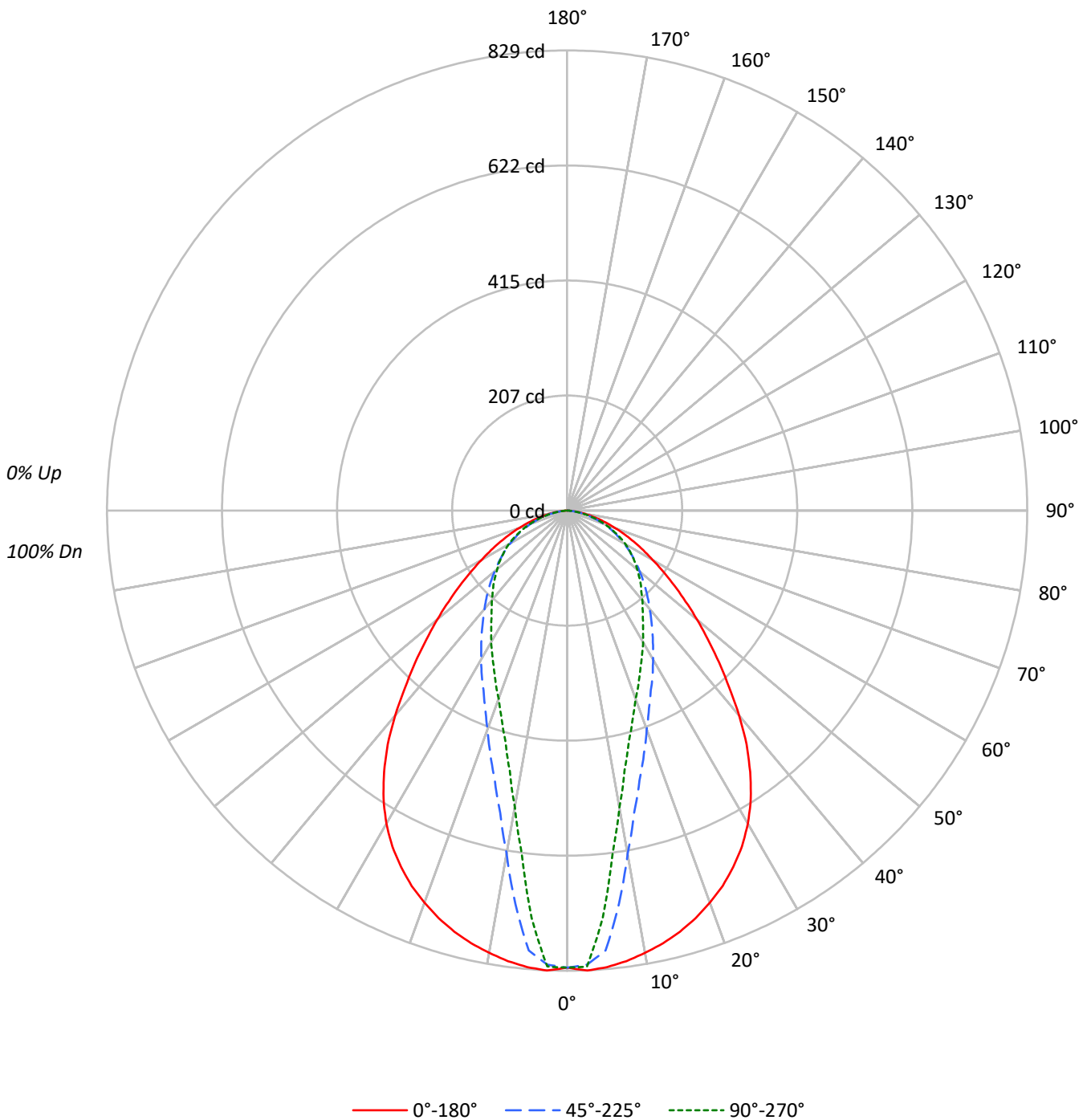
Lumens per Lamp: N/A
Luminaire Lumens: 1106.5 lumens
Efficiency: N/A
Efficacy: 94.6 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.5 / 0.8
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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	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°	15600	15600	15600
5°	15700	15129	14009
10°	15560	12082	10444
15°	15401	9874	8434
20°	15156	8452	7274
25°	14807	7461	6528
30°	14246	6766	5985
35°	13292	6198	5505
40°	11918	5725	5216
45°	10369	5351	5029
50°	9002	5025	4849
55°	7789	4753	4723
60°	6756	4475	4608
65°	5913	4196	4353
70°	5091	3855	3999
75°	4246	3397	3521
80°	3328	2760	2673
85°	2043	1783	1783

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10369 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.9	6.4
10°-20°	156.3	14.1
20°-30°	191.8	17.3
30°-40°	198.2	17.9
40°-50°	179.0	16.2
50°-60°	145.1	13.1
60°-70°	101.7	9.2
70°-80°	52.4	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°	419.0	37.9
0°-40°	617.2	55.8
0°-60°	941.3	85.1
0°-90°	1106.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1106.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	823	823	823	823	823	
5°	826	824	796	760	737	78
15°	785	662	503	449	430	221
25°	708	470	357	323	312	325
35°	575	348	268	245	238	357
45°	387	250	200	189	188	299
55°	236	171	144	142	143	212
65°	132	106	94	96	97	132
75°	58	50	46	48	48	63
85°	9	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°	823.4	823.4	823.4	823.4	823.4
2.5°	829.4	826.4	818.7	826.0	822.1
5°	825.5	823.8	795.5	759.8	736.6
7.5°	818.7	812.7	714.7	647.3	624.5
10°	808.8	778.7	628.0	565.2	542.9
12.5°	798.5	727.6	557.9	499.1	478.9
15°	785.2	661.9	503.4	448.8	430.0
17.5°	769.7	604.8	460.0	407.6	392.6
20°	751.7	555.4	419.2	373.3	360.8
22.5°	731.9	513.7	385.3	347.9	336.3
25°	708.3	470.3	356.9	323.0	312.3
27.5°	682.1	437.3	333.3	301.5	292.5
30°	651.2	405.0	309.3	280.9	273.6
32.5°	615.9	375.0	287.8	262.9	254.3
35°	574.7	347.5	268.0	245.3	238.0
37.5°	530.9	320.4	249.1	229.4	223.4
40°	481.9	296.8	231.5	213.9	210.9
42.5°	431.7	273.2	215.6	200.6	198.0
45°	387.0	250.4	199.7	188.6	187.7
47.5°	343.6	229.8	185.1	176.5	175.7
50°	305.4	208.3	170.5	164.9	164.5
52.5°	268.9	189.4	156.8	153.8	154.6
55°	235.8	171.4	143.9	142.2	143.0
57.5°	205.3	154.6	131.0	131.4	132.7
60°	178.3	137.4	118.1	119.8	121.6
62.5°	154.6	121.6	105.7	108.2	110.0
65°	131.9	105.7	93.6	95.8	97.1
67.5°	111.7	90.6	81.6	84.2	84.6
70°	91.9	76.9	69.6	72.2	72.2
72.5°	74.7	62.7	58.0	59.3	59.7
75°	58.0	49.8	46.4	47.7	48.1
77.5°	43.8	37.8	35.2	36.5	36.1
80°	30.5	26.6	25.3	24.9	24.5
82.5°	18.9	16.8	15.5	15.9	15.5
85°	9.4	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	18.04	19.54	18.41	19.85	20.17	16.54	18.04	16.90	18.35	18.67
	3H	19.63	20.97	20.01	21.30	21.66	18.25	19.60	18.63	19.93	20.29
	4H	20.15	21.41	20.55	21.76	22.14	18.83	20.10	19.23	20.44	20.82
	6H	20.48	21.65	20.89	22.01	22.40	19.18	20.35	19.59	20.71	21.11
	8H	20.55	21.66	20.98	22.05	22.45	19.26	20.37	19.68	20.76	21.16
	12H	20.58	21.64	21.01	22.02	22.45	19.29	20.35	19.72	20.73	21.16
4H	2H	18.35	19.61	18.75	19.96	20.34	17.10	18.36	17.50	18.71	19.09
	3H	20.13	21.18	20.54	21.58	21.98	19.02	20.07	19.43	20.47	20.87
	4H	20.76	21.70	21.19	22.12	22.56	19.71	20.66	20.15	21.07	21.51
	6H	21.20	22.02	21.65	22.46	22.92	20.16	20.98	20.62	21.43	21.89
	8H	21.30	22.07	21.77	22.51	22.98	20.27	21.03	20.73	21.48	21.95
	12H	21.35	22.04	21.84	22.52	22.99	20.32	21.01	20.81	21.48	21.96
8H	4H	20.91	21.68	21.37	22.12	22.59	19.95	20.72	20.42	21.16	21.63
	6H	21.42	22.05	21.92	22.54	23.02	20.49	21.12	20.99	21.61	22.09
	8H	21.56	22.13	22.08	22.64	23.13	20.64	21.21	21.16	21.72	22.21
	12H	21.65	22.15	22.16	22.64	23.21	20.74	21.24	21.25	21.73	22.29
12H	4H	20.91	21.59	21.39	22.07	22.54	19.96	20.65	20.45	21.13	21.60
	6H	21.42	21.99	21.93	22.50	22.98	20.51	21.08	21.03	21.59	22.08
	8H	21.61	22.10	22.12	22.60	23.16	20.70	21.20	21.21	21.69	22.26