

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: P1217294

Luminaire Tested: S122DRP-H865D840-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217294
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-H865D840-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

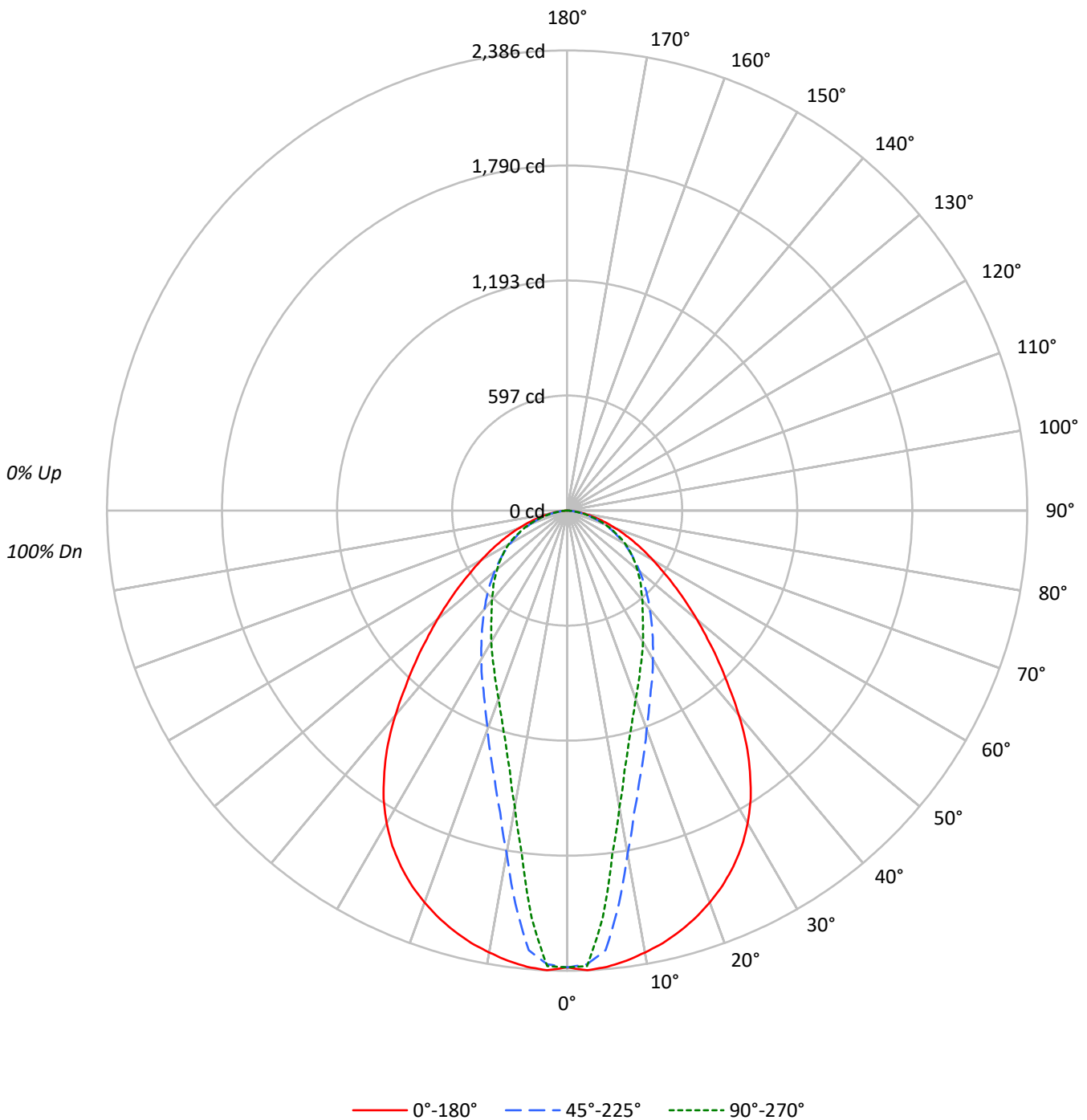
Lumens per Lamp: N/A
Luminaire Lumens: 3182.5 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.5 / 0.8
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 30.9
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				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°	44869	44869	44869
5°	45159	43514	40294
10°	44754	34748	30042
15°	44295	28399	24255
20°	43590	24311	20922
25°	42587	21460	18774
30°	40973	19459	17217
35°	38232	17830	15829
40°	34281	16469	15002
45°	29824	15393	14466
50°	25890	14457	13947
55°	22402	13672	13589
60°	19427	12872	13247
65°	17004	12073	12516
70°	14646	11084	11494
75°	12210	9765	10131
80°	9568	7954	7681
85°	5913	5108	5108

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 29824 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.9	6.4
10°-20°	449.6	14.1
20°-30°	551.6	17.3
30°-40°	570.1	17.9
40°-50°	514.9	16.2
50°-60°	417.2	13.1
60°-70°	292.5	9.2
70°-80°	150.9	4.7
80°-90°	31.8	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°	1205.2	37.9
0°-40°	1775.2	55.8
0°-60°	2707.3	85.1
0°-90°	3182.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3182.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2368	2368	2368	2368	2368	
5°	2374	2370	2288	2185	2119	225
15°	2258	1904	1448	1291	1237	636
25°	2037	1353	1027	929	898	936
35°	1653	999	771	705	684	1028
45°	1113	720	574	542	540	861
55°	678	493	414	409	411	611
65°	379	304	269	276	279	379
75°	167	143	133	137	138	180
85°	27	24	24	24	24	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2368.3	2368.3	2368.3	2368.3	2368.3
2.5°	2385.6	2376.9	2354.7	2375.7	2364.6
5°	2374.5	2369.5	2288.0	2185.4	2118.7
7.5°	2354.7	2337.4	2055.7	1861.8	1796.3
10°	2326.3	2239.8	1806.2	1625.8	1561.6
12.5°	2296.6	2092.8	1604.8	1435.5	1377.5
15°	2258.3	1903.8	1447.9	1291.0	1236.6
17.5°	2213.9	1739.5	1323.1	1172.4	1129.2
20°	2162.0	1597.4	1205.8	1073.6	1037.7
22.5°	2105.1	1477.5	1108.2	1000.7	967.3
25°	2037.2	1352.8	1026.6	929.0	898.1
27.5°	1961.8	1257.6	958.7	867.3	841.3
30°	1872.9	1165.0	889.5	808.0	787.0
32.5°	1771.6	1078.5	827.7	756.1	731.4
35°	1653.0	999.4	770.9	705.4	684.4
37.5°	1527.0	921.6	716.5	659.7	642.4
40°	1386.1	853.7	665.9	615.2	606.6
42.5°	1241.6	785.7	620.2	576.9	569.5
45°	1113.1	720.2	574.5	542.3	539.9
47.5°	988.3	660.9	532.5	507.8	505.3
50°	878.4	599.2	490.5	474.4	473.2
52.5°	773.4	544.8	450.9	442.3	444.7
55°	678.2	492.9	413.9	408.9	411.4
57.5°	590.5	444.7	376.8	378.0	381.7
60°	512.7	395.3	339.7	344.7	349.6
62.5°	444.7	349.6	303.9	311.3	316.3
65°	379.3	303.9	269.3	275.5	279.2
67.5°	321.2	260.7	234.7	242.1	243.4
70°	264.4	221.1	200.1	207.5	207.5
72.5°	215.0	180.4	166.8	170.5	171.7
75°	166.8	143.3	133.4	137.1	138.4
77.5°	126.0	108.7	101.3	105.0	103.8
80°	87.7	76.6	72.9	71.7	70.4
82.5°	54.4	48.2	44.5	45.7	44.5
85°	27.2	23.5	23.5	23.5	23.5
87.5°	8.6	8.6	8.6	8.6	8.6
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	21.71	23.21	22.08	23.53	23.84	20.21	21.71	20.58	22.02	22.34
	3H	23.30	24.65	23.68	24.97	25.34	21.92	23.27	22.30	23.60	23.96
	4H	23.82	25.09	24.22	25.43	25.81	22.50	23.77	22.90	24.11	24.49
	6H	24.15	25.32	24.56	25.68	26.08	22.85	24.02	23.26	24.38	24.78
	8H	24.22	25.33	24.65	25.72	26.13	22.93	24.04	23.35	24.43	24.83
	12H	24.25	25.31	24.68	25.70	26.12	22.96	24.02	23.39	24.40	24.83
4H	2H	22.02	23.28	22.42	23.63	24.01	20.77	22.03	21.17	22.38	22.76
	3H	23.80	24.85	24.21	25.25	25.65	22.69	23.74	23.10	24.14	24.54
	4H	24.43	25.38	24.87	25.79	26.23	23.38	24.33	23.82	24.74	25.18
	6H	24.87	25.69	25.32	26.13	26.59	23.83	24.65	24.29	25.10	25.56
	8H	24.97	25.74	25.44	26.18	26.65	23.94	24.70	24.40	25.15	25.62
	12H	25.03	25.71	25.51	26.19	26.66	23.99	24.68	24.47	25.15	25.63
8H	4H	24.58	25.35	25.05	25.79	26.26	23.62	24.39	24.09	24.83	25.30
	6H	25.09	25.72	25.59	26.21	26.69	24.16	24.79	24.66	25.28	25.76
	8H	25.24	25.80	25.75	26.31	26.80	24.31	24.88	24.83	25.39	25.88
	12H	25.33	25.82	25.84	26.32	26.88	24.41	24.91	24.92	25.40	25.96
12H	4H	24.58	25.26	25.06	25.74	26.21	23.63	24.32	24.12	24.80	25.27
	6H	25.09	25.66	25.61	26.17	26.66	24.18	24.75	24.70	25.26	25.75
	8H	25.28	25.77	25.79	26.27	26.83	24.37	24.87	24.88	25.36	25.93