

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: P1217303

Luminaire Tested: S122DRP-S1005D840-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1217303  
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-S1005D840-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: -

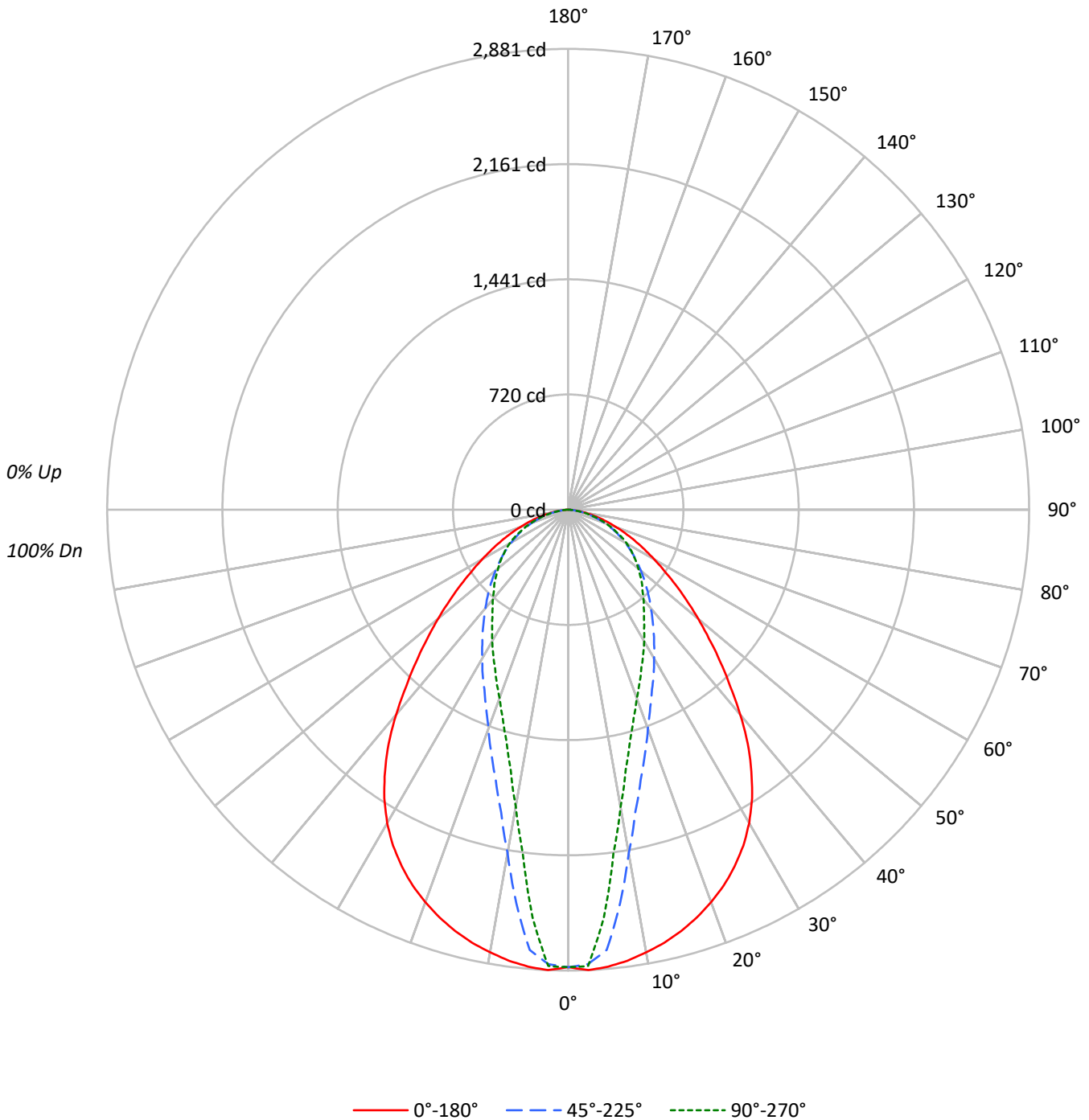
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3843.2 lumens  
Efficiency: N/A  
Efficacy: 91.7 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): 41.9  
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

TEST NUMBER: P1217303

CATALOG NUMBER: S122DRP-S1005D840-X4F0-XX-UDD-G-W

### Luminous Intensity Polar Plot





TEST NUMBER: P1217303

CATALOG NUMBER: S122DRP-S1005D840-X4F0-XX-UDD-G-W

**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°	54185	54185	54185
5°	54535	52547	48662
10°	54046	41962	36279
15°	53492	34295	29292
20°	52640	29358	25267
25°	51429	25917	22673
30°	49481	23500	20792
35°	46169	21533	19116
40°	41399	19887	18116
45°	36016	18587	17469
50°	31267	17458	16842
55°	27056	16509	16410
60°	23459	15547	15998
65°	20532	14579	15117
70°	17687	13389	13882
75°	14743	11793	12232
80°	11554	9601	9274
85°	7130	6152	6152

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 36016 cd/sqm



TEST NUMBER: P1217303

CATALOG NUMBER: S122DRP-S1005D840-X4F0-XX-UDD-G-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	246.2	6.4
10°-20°	543.0	14.1
20°-30°	666.2	17.3
30°-40°	688.5	17.9
40°-50°	621.8	16.2
50°-60°	503.9	13.1
60°-70°	353.2	9.2
70°-80°	182.2	4.7
80°-90°	38.4	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°	1455.4	37.9
0°-40°	2143.8	55.8
0°-60°	3269.5	85.1
0°-90°	3843.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3843.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2860	2860	2860	2860	2860	
5°	2868	2862	2763	2639	2559	272
15°	2727	2299	1748	1559	1493	768
25°	2460	1634	1240	1122	1085	1130
35°	1996	1207	931	852	826	1241
45°	1344	870	694	655	652	1040
55°	819	595	500	494	497	738
65°	458	367	325	333	337	458
75°	201	173	161	166	167	218
85°	33	28	28	28	28	44
90°	0	0	0	0	0	



TEST NUMBER: P1217303

CATALOG NUMBER: S122DRP-S1005D840-X4F0-XX-UDD-G-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2860.0	2860.0	2860.0	2860.0	2860.0
2.5°	2880.9	2870.5	2843.6	2869.0	2855.5
5°	2867.5	2861.5	2763.0	2639.2	2558.7
7.5°	2843.6	2822.7	2482.6	2248.3	2169.3
10°	2809.3	2704.9	2181.2	1963.4	1885.8
12.5°	2773.5	2527.3	1938.0	1733.6	1663.5
15°	2727.2	2299.1	1748.5	1559.1	1493.4
17.5°	2673.5	2100.6	1597.9	1415.8	1363.6
20°	2610.9	1929.1	1456.1	1296.5	1253.2
22.5°	2542.2	1784.3	1338.3	1208.5	1168.2
25°	2460.2	1633.7	1239.8	1121.9	1084.6
27.5°	2369.2	1518.8	1157.7	1047.3	1016.0
30°	2261.8	1406.9	1074.2	975.7	950.4
32.5°	2139.4	1302.5	999.6	913.1	883.2
35°	1996.2	1207.0	931.0	851.9	826.5
37.5°	1844.0	1113.0	865.3	796.7	775.8
40°	1673.9	1030.9	804.1	743.0	732.5
42.5°	1499.4	948.9	748.9	696.7	687.8
45°	1344.2	869.8	693.7	655.0	652.0
47.5°	1193.5	798.2	643.0	613.2	610.2
50°	1060.8	723.6	592.3	572.9	571.4
52.5°	933.9	657.9	544.6	534.1	537.1
55°	819.1	595.3	499.8	493.8	496.8
57.5°	713.1	537.1	455.0	456.5	461.0
60°	619.1	477.4	410.3	416.2	422.2
62.5°	537.1	422.2	367.0	376.0	381.9
65°	458.0	367.0	325.2	332.7	337.2
67.5°	387.9	314.8	283.5	292.4	293.9
70°	319.3	267.1	241.7	250.6	250.6
72.5°	259.6	217.8	201.4	205.9	207.4
75°	201.4	173.1	161.1	165.6	167.1
77.5°	152.2	131.3	122.3	126.8	125.3
80°	105.9	92.5	88.0	86.5	85.0
82.5°	65.6	58.2	53.7	55.2	53.7
85°	32.8	28.3	28.3	28.3	28.3
87.5°	10.4	10.4	10.4	10.4	10.4
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1217303  
 CATALOG NUMBER: S122DRP-S1005D840-X4F0-XX-UDD-G-W

**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	22.37	23.87	22.73	24.18	24.50	20.87	22.37	21.23	22.68	22.99
	3H	23.96	25.30	24.33	25.63	25.99	22.58	23.92	22.96	24.25	24.61
	4H	24.48	25.74	24.88	26.09	26.47	23.16	24.42	23.56	24.77	25.15
	6H	24.81	25.97	25.22	26.34	26.73	23.51	24.67	23.92	25.04	25.43
	8H	24.88	25.99	25.31	26.38	26.78	23.58	24.69	24.01	25.08	25.48
	12H	24.91	25.97	25.34	26.35	26.78	23.61	24.67	24.04	25.06	25.49
4H	2H	22.68	23.94	23.08	24.29	24.67	21.43	22.69	21.83	23.04	23.42
	3H	24.46	25.51	24.87	25.91	26.31	23.34	24.39	23.75	24.79	25.19
	4H	25.09	26.03	25.52	26.45	26.89	24.04	24.98	24.47	25.40	25.84
	6H	25.52	26.34	25.98	26.79	27.25	24.49	25.31	24.95	25.75	26.21
	8H	25.63	26.39	26.09	26.84	27.31	24.59	25.36	25.06	25.80	26.27
	12H	25.68	26.36	26.16	26.84	27.31	24.65	25.33	25.13	25.81	26.28
8H	4H	25.24	26.00	25.70	26.45	26.92	24.28	25.04	24.74	25.49	25.96
	6H	25.75	26.38	26.24	26.87	27.35	24.82	25.45	25.31	25.94	26.42
	8H	25.89	26.46	26.41	26.97	27.46	24.97	25.53	25.48	26.04	26.53
	12H	25.98	26.48	26.49	26.97	27.54	25.06	25.56	25.57	26.05	26.62
12H	4H	25.24	25.92	25.72	26.40	26.87	24.29	24.97	24.77	25.45	25.92
	6H	25.75	26.31	26.26	26.82	27.31	24.84	25.40	25.35	25.91	26.40
	8H	25.93	26.43	26.44	26.92	27.49	25.03	25.53	25.54	26.02	26.59