

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: P1217391

Luminaire Tested: S124DRP-S1005D830-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1217391  
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G2-2509-563-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/9/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124DRP-S1005D830-X4F0-XX-UDD-G-W  
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

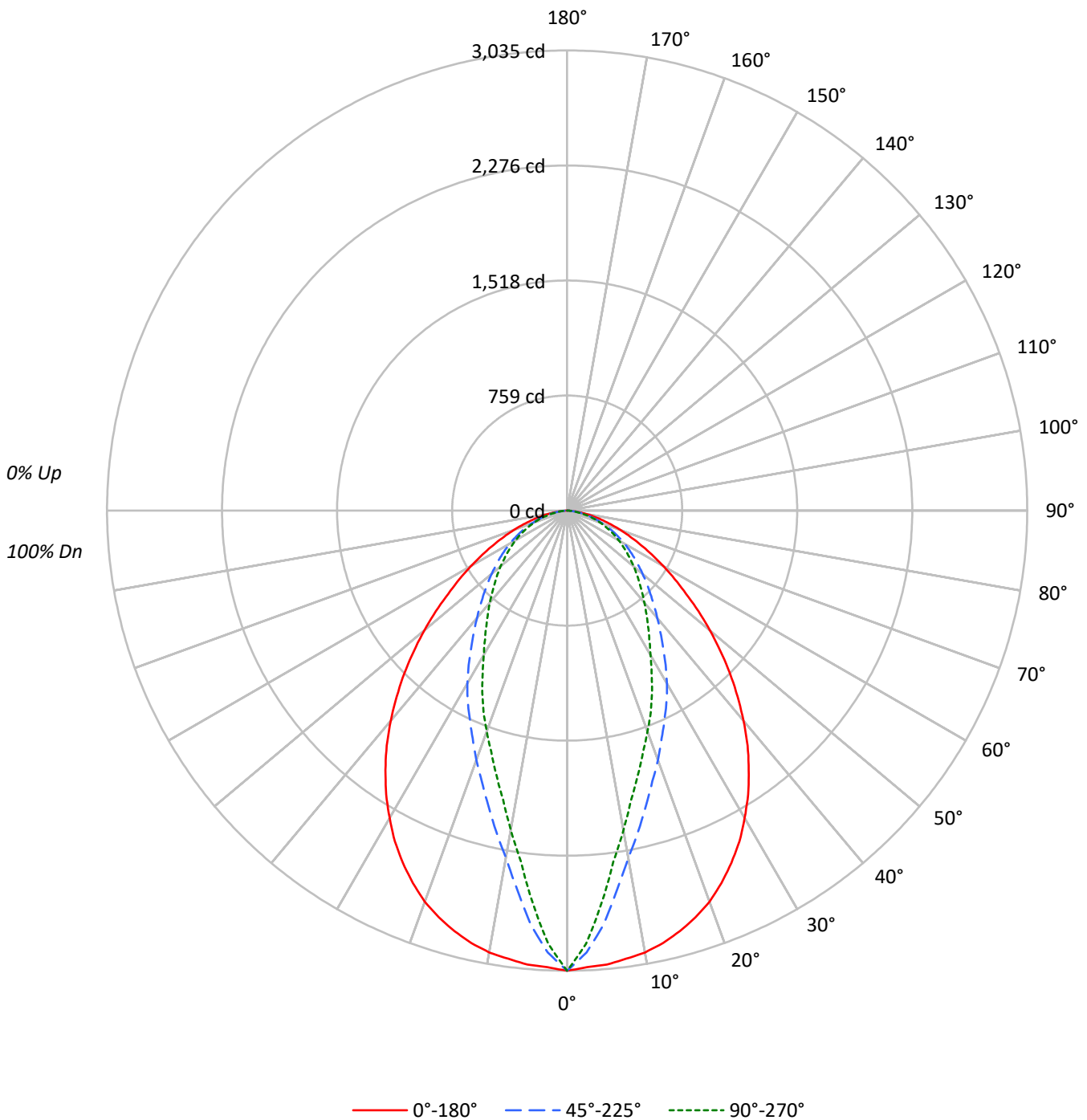
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4256.5 lumens  
Efficiency: N/A  
Efficacy: 101.6 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87  
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	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																												
1	110	106	102	99	108	104	100	97	100	97	94	96	94	92	92	90	89	87																												
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75																												
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65																												
4	87	76	68	62	84	75	67	62	72	66	61	70	64	60	68	63	59	57																												
5	80	69	61	55	78	68	60	54	66	59	54	64	58	53	62	57	53	51																												
6	75	63	55	49	73	62	54	49	60	53	48	58	52	48	57	52	47	45																												
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41																												
8	66	53	45	40	64	52	45	40	51	44	40	50	44	39	49	43	39	37																												
9	62	49	42	36	60	49	41	36	48	41	36	47	40	36	46	40	36	34																												
10	58	46	38	34	57	45	38	34	44	38	33	43	37	33	43	37	33	31																												

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	26834	26834	26834
5°	26675	24338	23069
10°	26563	20864	19197
15°	26288	18410	16514
20°	25827	16472	14586
25°	25006	14823	12920
30°	23904	13439	11215
35°	22545	11915	10040
40°	20885	10674	9147
45°	18983	9709	8439
50°	16911	8934	7886
55°	14750	8302	7374
60°	12951	7727	6948
65°	11211	7130	6487
70°	9707	6460	5977
75°	8079	5708	5250
80°	6263	4628	4287
85°	3936	3114	2851

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 18983 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	254.1	6.0
10°-20°	603.5	14.2
20°-30°	771.2	18.1
30°-40°	783.3	18.4
40°-50°	694.3	16.3
50°-60°	545.6	12.8
60°-70°	371.5	8.7
70°-80°	190.7	4.5
80°-90°	42.3	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°	1628.8	38.3
0°-40°	2412.0	56.7
0°-60°	3652.0	85.8
0°-90°	4256.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4256.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3035	3035	3035	3035	3035	
5°	3006	2929	2742	2637	2599	285
15°	2872	2398	2011	1846	1804	809
25°	2563	1879	1520	1374	1324	1178
35°	2089	1423	1104	964	930	1303
45°	1518	1025	776	696	675	1170
55°	957	683	539	490	478	864
65°	536	414	341	317	310	536
75°	236	195	167	159	154	254
85°	39	36	31	31	28	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3035.0	3035.0	3035.0	3035.0	3035.0
2.5°	3013.6	3017.7	2917.4	2881.3	2860.0
5°	3005.6	2929.4	2742.3	2636.8	2599.3
7.5°	2981.6	2815.9	2520.5	2374.8	2336.1
10°	2958.8	2686.2	2324.0	2179.7	2138.3
12.5°	2921.4	2543.2	2166.3	2000.6	1951.2
15°	2872.0	2397.5	2011.3	1845.6	1804.2
17.5°	2813.2	2258.6	1871.0	1712.0	1666.5
20°	2745.0	2130.3	1750.7	1587.7	1550.3
22.5°	2659.5	2003.3	1627.8	1480.8	1439.3
25°	2563.3	1879.0	1519.5	1373.8	1324.4
27.5°	2460.4	1758.7	1419.3	1257.6	1205.5
30°	2341.4	1643.8	1316.4	1146.7	1098.5
32.5°	2221.1	1530.2	1208.1	1047.8	1009.0
35°	2088.8	1423.3	1103.9	963.6	930.2
37.5°	1955.2	1320.4	1010.3	887.4	858.0
40°	1809.5	1220.2	924.8	816.6	792.5
42.5°	1663.9	1119.9	847.3	753.7	731.0
45°	1518.2	1025.0	776.5	696.3	674.9
47.5°	1371.2	931.5	711.0	640.1	622.8
50°	1229.5	843.3	649.5	588.0	573.3
52.5°	1091.9	760.4	590.7	538.6	522.5
55°	956.9	682.9	538.6	490.5	478.4
57.5°	841.9	610.7	486.5	445.0	435.7
60°	732.4	541.3	437.0	402.3	392.9
62.5°	629.5	477.1	387.6	359.5	352.8
65°	535.9	414.3	340.8	316.7	310.1
67.5°	450.4	356.8	292.7	275.3	270.0
70°	375.5	299.4	249.9	235.2	231.2
72.5°	300.7	244.6	207.1	196.5	192.4
75°	236.5	195.1	167.1	159.0	153.7
77.5°	177.7	148.3	128.3	121.6	117.6
80°	123.0	105.6	90.9	88.2	84.2
82.5°	77.5	66.8	58.8	57.5	53.5
85°	38.8	36.1	30.7	30.7	28.1
87.5°	13.4	12.0	12.0	12.0	10.7
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	20.33	21.82	20.70	22.13	22.45	17.66	19.15	18.02	19.46	19.77
	3H	21.93	23.26	22.30	23.59	23.95	19.26	20.59	19.64	20.92	21.28
	4H	22.46	23.71	22.86	24.05	24.43	19.82	21.07	20.22	21.41	21.79
	6H	22.79	23.94	23.20	24.31	24.70	20.17	21.32	20.58	21.69	22.08
	8H	22.87	23.96	23.29	24.35	24.75	20.26	21.36	20.69	21.75	22.15
	12H	22.89	23.95	23.33	24.33	24.76	20.29	21.34	20.73	21.73	22.16
4H	2H	20.56	21.81	20.96	22.16	22.54	18.33	19.58	18.73	19.93	20.31
	3H	22.35	23.38	22.76	23.78	24.18	20.12	21.16	20.53	21.56	21.96
	4H	22.99	23.92	23.42	24.33	24.77	20.79	21.72	21.22	22.13	22.57
	6H	23.43	24.24	23.89	24.69	25.15	21.24	22.05	21.70	22.50	22.96
	8H	23.54	24.30	24.01	24.75	25.21	21.36	22.12	21.82	22.56	23.03
	12H	23.60	24.28	24.08	24.76	25.23	21.42	22.09	21.90	22.57	23.04
8H	4H	23.09	23.85	23.55	24.29	24.76	21.09	21.84	21.55	22.29	22.75
	6H	23.61	24.23	24.11	24.72	25.20	21.63	22.26	22.13	22.75	23.23
	8H	23.76	24.32	24.28	24.83	25.32	21.80	22.36	22.32	22.87	23.36
	12H	23.86	24.36	24.37	24.85	25.42	21.91	22.40	22.42	22.89	23.46
12H	4H	23.08	23.76	23.56	24.23	24.71	21.11	21.78	21.59	22.26	22.73
	6H	23.60	24.16	24.12	24.67	25.16	21.67	22.23	22.19	22.74	23.23
	8H	23.79	24.29	24.31	24.78	25.35	21.89	22.38	22.40	22.87	23.44