

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: P1217435

Luminaire Tested: S124DRP-S865D950-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217435
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-S865D950-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

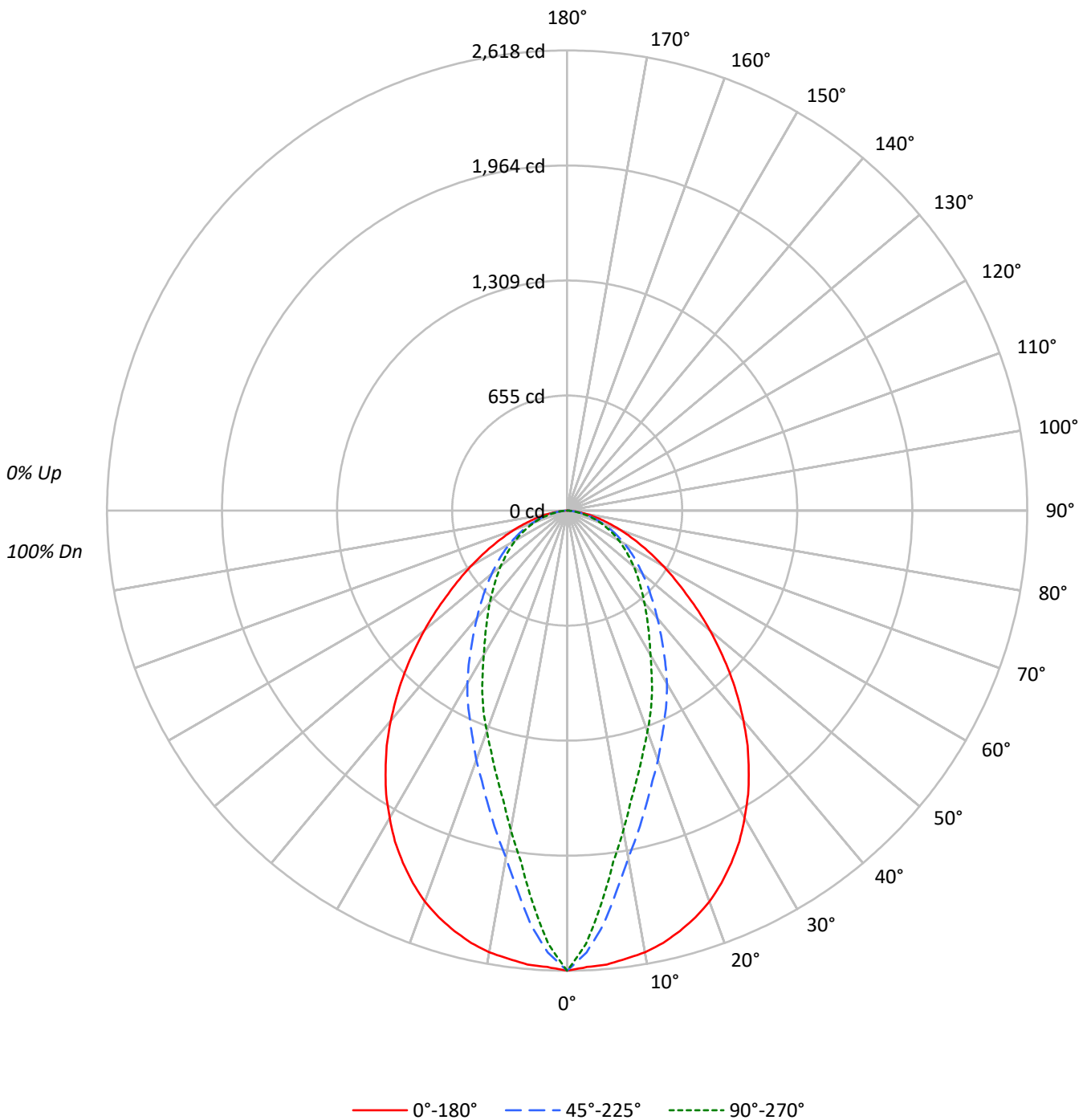
Lumens per Lamp: N/A
Luminaire Lumens: 3671.0 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
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	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°	23142	23142	23142
5°	23006	20991	19896
10°	22909	17994	16556
15°	22672	15877	14242
20°	22274	14206	12580
25°	21566	12784	11143
30°	20615	11590	9672
35°	19444	10275	8658
40°	18012	9206	7889
45°	16371	8374	7278
50°	14586	7705	6802
55°	12720	7160	6360
60°	11168	6665	5993
65°	9669	6149	5594
70°	8373	5571	5155
75°	6969	4923	4526
80°	5397	3992	3696
85°	3388	2688	2455

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 16371 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.1	6.0
10°-20°	520.5	14.2
20°-30°	665.1	18.1
30°-40°	675.5	18.4
40°-50°	598.8	16.3
50°-60°	470.6	12.8
60°-70°	320.4	8.7
70°-80°	164.5	4.5
80°-90°	36.5	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°	1404.7	38.3
0°-40°	2080.2	56.7
0°-60°	3149.6	85.8
0°-90°	3671.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3671.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2618	2618	2618	2618	2618	
5°	2592	2526	2365	2274	2242	246
15°	2477	2068	1735	1592	1556	698
25°	2211	1620	1310	1185	1142	1016
35°	1802	1228	952	831	802	1124
45°	1309	884	670	600	582	1009
55°	825	589	464	423	413	745
65°	462	357	294	273	267	462
75°	204	168	144	137	132	219
85°	33	31	26	26	24	45
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2617.5	2617.5	2617.5	2617.5	2617.5
2.5°	2599.1	2602.5	2516.1	2485.0	2466.5
5°	2592.2	2526.5	2365.1	2274.0	2241.8
7.5°	2571.4	2428.5	2173.8	2048.1	2014.7
10°	2551.8	2316.7	2004.3	1879.9	1844.1
12.5°	2519.5	2193.4	1868.3	1725.4	1682.8
15°	2476.9	2067.7	1734.6	1591.7	1556.0
17.5°	2426.2	1947.9	1613.6	1476.5	1437.3
20°	2367.4	1837.2	1509.9	1369.3	1337.0
22.5°	2293.6	1727.7	1403.8	1277.1	1241.3
25°	2210.7	1620.5	1310.5	1184.9	1142.2
27.5°	2121.9	1516.8	1224.0	1084.6	1039.6
30°	2019.3	1417.7	1135.3	988.9	947.4
32.5°	1915.6	1319.7	1041.9	903.6	870.2
35°	1801.5	1227.5	952.0	831.0	802.2
37.5°	1686.2	1138.8	871.4	765.3	740.0
40°	1560.6	1052.3	797.6	704.2	683.5
42.5°	1435.0	965.9	730.7	650.1	630.5
45°	1309.3	884.0	669.7	600.5	582.1
47.5°	1182.6	803.4	613.2	552.1	537.1
50°	1060.4	727.3	560.2	507.1	494.5
52.5°	941.7	655.8	509.4	464.5	450.7
55°	825.2	589.0	464.5	423.0	412.6
57.5°	726.1	526.7	419.5	383.8	375.7
60°	631.6	466.8	376.9	346.9	338.9
62.5°	542.9	411.5	334.2	310.0	304.3
65°	462.2	357.3	293.9	273.2	267.4
67.5°	388.4	307.7	252.4	237.4	232.8
70°	323.9	258.2	215.5	202.9	199.4
72.5°	259.3	210.9	178.7	169.4	166.0
75°	204.0	168.3	144.1	137.2	132.5
77.5°	153.3	127.9	110.6	104.9	101.4
80°	106.0	91.1	78.4	76.1	72.6
82.5°	66.8	57.6	50.7	49.6	46.1
85°	33.4	31.1	26.5	26.5	24.2
87.5°	11.5	10.4	10.4	10.4	9.2
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	19.82	21.31	20.18	21.62	21.93	17.14	18.63	17.51	18.94	19.26
	3H	21.41	22.75	21.79	23.07	23.44	18.74	20.08	19.12	20.40	20.77
	4H	21.94	23.19	22.34	23.54	23.92	19.30	20.55	19.70	20.90	21.28
	6H	22.27	23.43	22.69	23.79	24.19	19.66	20.81	20.07	21.18	21.57
	8H	22.35	23.45	22.78	23.84	24.24	19.74	20.84	20.17	21.23	21.63
	12H	22.38	23.43	22.81	23.81	24.24	19.78	20.83	20.21	21.21	21.64
4H	2H	20.05	21.30	20.45	21.65	22.03	17.82	19.07	18.22	19.42	19.80
	3H	21.83	22.87	22.24	23.27	23.67	19.61	20.64	20.02	21.05	21.45
	4H	22.47	23.40	22.90	23.82	24.26	20.27	21.20	20.70	21.62	22.06
	6H	22.92	23.73	23.38	24.17	24.63	20.73	21.54	21.19	21.98	22.44
	8H	23.03	23.79	23.49	24.23	24.70	20.84	21.60	21.31	22.05	22.51
	12H	23.09	23.76	23.57	24.24	24.71	20.91	21.58	21.39	22.06	22.53
8H	4H	22.58	23.33	23.04	23.78	24.24	20.57	21.33	21.04	21.77	22.24
	6H	23.09	23.72	23.59	24.21	24.69	21.12	21.74	21.62	22.24	22.71
	8H	23.25	23.81	23.76	24.32	24.81	21.29	21.85	21.80	22.36	22.85
	12H	23.35	23.84	23.86	24.33	24.90	21.40	21.89	21.91	22.38	22.95
12H	4H	22.57	23.24	23.05	23.72	24.19	20.60	21.27	21.08	21.75	22.22
	6H	23.09	23.65	23.60	24.16	24.65	21.16	21.72	21.67	22.23	22.72
	8H	23.28	23.77	23.79	24.27	24.83	21.37	21.86	21.88	22.36	22.92