

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: P1217398

Luminaire Tested: S124DRP-S1005D940-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217398
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-S1005D940-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

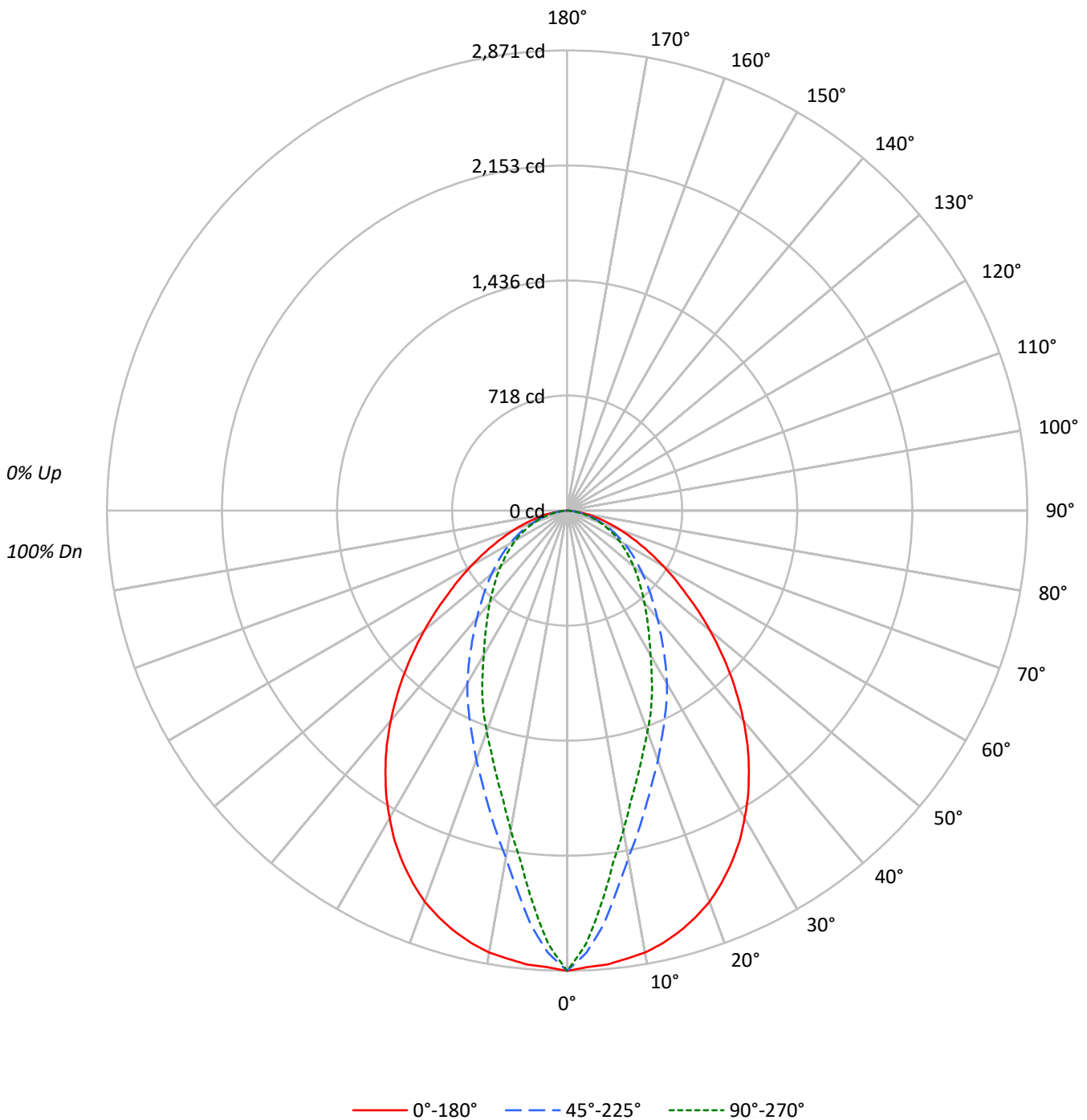
Lumens per Lamp: N/A
Luminaire Lumens: 4027.0 lumens
Efficiency: N/A
Efficacy: 96.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
Input Voltage (V): 120
Input Current (A_{in}): 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	94	92	92	90	89	87				87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75				75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65				65
4	87	76	68	62	84	75	67	62	72	66	61	70	64	60	68	63	59	57				57
5	80	69	61	55	78	68	60	54	66	59	54	64	58	53	62	57	53	51				51
6	75	63	55	49	73	62	54	49	60	53	48	58	52	48	57	52	47	45				45
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41				41
8	66	53	45	40	64	52	45	40	51	44	40	50	44	39	49	43	39	37				37
9	62	49	42	36	60	49	41	36	48	41	36	47	40	36	46	40	36	34				34
10	58	46	38	34	57	45	38	34	44	38	33	43	37	33	43	37	33	31				31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	25386	25386	25386
5°	25236	23027	21826
10°	25131	19739	18162
15°	24870	17418	15624
20°	24435	15584	13799
25°	23657	14024	12223
30°	22614	12714	10610
35°	21330	11273	9498
40°	19758	10098	8654
45°	17959	9185	7984
50°	16000	8452	7461
55°	13955	7854	6977
60°	12252	7310	6573
65°	10607	6745	6136
70°	9185	6111	5653
75°	7645	5397	4967
80°	5921	4379	4058
85°	3723	2952	2698

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17959 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	240.4	6.0
10°-20°	571.0	14.2
20°-30°	729.6	18.1
30°-40°	741.0	18.4
40°-50°	656.9	16.3
50°-60°	516.2	12.8
60°-70°	351.5	8.7
70°-80°	180.5	4.5
80°-90°	40.0	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°	1540.9	38.3
0°-40°	2282.0	56.7
0°-60°	3455.0	85.8
0°-90°	4027.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4027.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2871	2871	2871	2871	2871	
5°	2844	2772	2594	2495	2459	270
15°	2717	2268	1903	1746	1707	765
25°	2425	1778	1438	1300	1253	1114
35°	1976	1346	1044	912	880	1233
45°	1436	970	735	659	638	1107
55°	905	646	510	464	453	817
65°	507	392	322	300	293	507
75°	224	185	158	150	145	240
85°	37	34	29	29	27	49
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2871.3	2871.3	2871.3	2871.3	2871.3
2.5°	2851.1	2854.9	2760.1	2725.9	2705.7
5°	2843.5	2771.5	2594.5	2494.6	2459.2
7.5°	2820.8	2664.0	2384.6	2246.8	2210.1
10°	2799.3	2541.3	2198.7	2062.2	2023.0
12.5°	2763.9	2406.1	2049.5	1892.7	1846.0
15°	2717.1	2268.2	1902.9	1746.1	1706.9
17.5°	2661.5	2136.8	1770.1	1619.6	1576.6
20°	2597.0	2015.4	1656.3	1502.1	1466.6
22.5°	2516.1	1895.3	1540.0	1400.9	1361.7
25°	2425.0	1777.7	1437.6	1299.8	1253.0
27.5°	2327.7	1663.9	1342.7	1189.8	1140.4
30°	2215.1	1555.2	1245.4	1084.8	1039.3
32.5°	2101.4	1447.7	1143.0	991.3	954.6
35°	1976.2	1346.5	1044.4	911.6	880.0
37.5°	1849.7	1249.2	955.9	839.5	811.7
40°	1711.9	1154.4	874.9	772.5	749.8
42.5°	1574.1	1059.5	801.6	713.1	691.6
45°	1436.3	969.8	734.6	658.7	638.5
47.5°	1297.2	881.3	672.6	605.6	589.2
50°	1163.2	797.8	614.5	556.3	542.4
52.5°	1033.0	719.4	558.8	509.5	494.4
55°	905.3	646.1	509.5	464.0	452.6
57.5°	796.5	577.8	460.2	421.0	412.2
60°	692.9	512.1	413.4	380.6	371.7
62.5°	595.5	451.4	366.7	340.1	333.8
65°	507.0	391.9	322.4	299.7	293.3
67.5°	426.1	337.6	276.9	260.5	255.4
70°	355.3	283.2	236.4	222.5	218.7
72.5°	284.5	231.4	196.0	185.9	182.1
75°	223.8	184.6	158.0	150.5	145.4
77.5°	168.2	140.3	121.4	115.1	111.3
80°	116.3	99.9	86.0	83.4	79.7
82.5°	73.3	63.2	55.6	54.4	50.6
85°	36.7	34.1	29.1	29.1	26.6
87.5°	12.6	11.4	11.4	11.4	10.1
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	20.14	21.63	20.51	21.94	22.26	17.47	18.95	17.83	19.27	19.58
	3H	21.73	23.07	22.11	23.40	23.76	19.06	20.40	19.44	20.73	21.09
	4H	22.26	23.51	22.66	23.86	24.24	19.62	20.87	20.02	21.22	21.60
	6H	22.60	23.75	23.01	24.12	24.51	19.98	21.13	20.39	21.50	21.89
	8H	22.67	23.77	23.10	24.16	24.56	20.07	21.16	20.49	21.55	21.96
	12H	22.70	23.75	23.13	24.13	24.56	20.10	21.15	20.53	21.53	21.96
4H	2H	20.37	21.62	20.77	21.97	22.35	18.14	19.39	18.54	19.74	20.12
	3H	22.15	23.19	22.56	23.59	23.99	19.93	20.97	20.34	21.37	21.77
	4H	22.79	23.73	23.23	24.14	24.58	20.59	21.53	21.03	21.94	22.38
	6H	23.24	24.05	23.70	24.49	24.95	21.05	21.86	21.51	22.30	22.76
	8H	23.35	24.11	23.82	24.55	25.02	21.17	21.92	21.63	22.37	22.84
	12H	23.41	24.08	23.89	24.56	25.03	21.23	21.90	21.71	22.38	22.85
8H	4H	22.90	23.65	23.36	24.10	24.57	20.89	21.65	21.36	22.09	22.56
	6H	23.42	24.04	23.91	24.53	25.01	21.44	22.07	21.94	22.56	23.04
	8H	23.57	24.13	24.09	24.64	25.13	21.61	22.17	22.13	22.68	23.17
	12H	23.67	24.16	24.18	24.66	25.22	21.72	22.21	22.23	22.70	23.27
12H	4H	22.89	23.56	23.37	24.04	24.51	20.92	21.59	21.40	22.07	22.54
	6H	23.41	23.97	23.92	24.48	24.97	21.48	22.04	22.00	22.55	23.04
	8H	23.60	24.09	24.11	24.59	25.15	21.69	22.19	22.20	22.68	23.24