

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: P1217386

Luminaire Tested: S124DRP-H865D927-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217386
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-H865D927-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

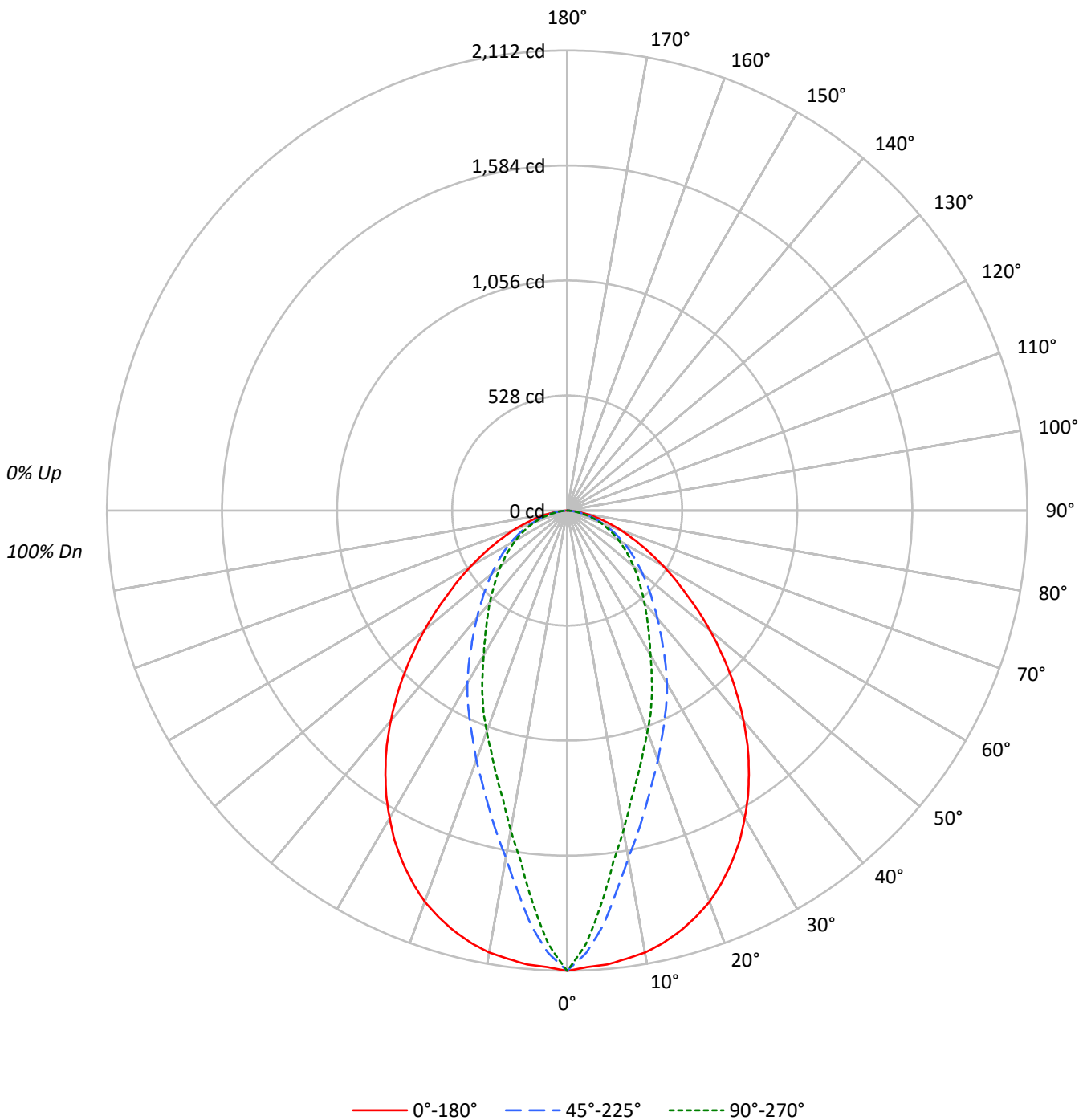
Lumens per Lamp: N/A
Luminaire Lumens: 2962.4 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	18676	18676	18676
5°	18565	16939	16056
10°	18488	14522	13361
15°	18296	12813	11493
20°	17975	11464	10151
25°	17403	10316	8992
30°	16636	9354	7805
35°	15691	8293	6988
40°	14535	7428	6366
45°	13211	6757	5873
50°	11770	6217	5488
55°	10266	5777	5133
60°	9013	5377	4836
65°	7803	4962	4515
70°	6757	4495	4159
75°	5623	3973	3655
80°	4358	3218	2984
85°	2739	2171	1978

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13211 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.8	6.0
10°-20°	420.0	14.2
20°-30°	536.7	18.1
30°-40°	545.1	18.4
40°-50°	483.2	16.3
50°-60°	379.7	12.8
60°-70°	258.6	8.7
70°-80°	132.7	4.5
80°-90°	29.4	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°	1133.6	38.3
0°-40°	1678.7	56.7
0°-60°	2541.6	85.8
0°-90°	2962.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2962.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2112	2112	2112	2112	2112	
5°	2092	2039	1909	1835	1809	199
15°	1999	1669	1400	1284	1256	563
25°	1784	1308	1058	956	922	820
35°	1454	991	768	671	647	907
45°	1057	713	540	485	470	814
55°	666	475	375	341	333	601
65°	373	288	237	220	216	373
75°	165	136	116	111	107	177
85°	27	25	21	21	20	36
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2112.3	2112.3	2112.3	2112.3	2112.3
2.5°	2097.4	2100.2	2030.4	2005.3	1990.4
5°	2091.8	2038.8	1908.6	1835.1	1809.1
7.5°	2075.1	1959.7	1754.2	1652.8	1625.8
10°	2059.3	1869.5	1617.5	1517.0	1488.2
12.5°	2033.2	1770.0	1507.7	1392.4	1358.0
15°	1998.8	1668.6	1399.8	1284.5	1255.6
17.5°	1957.9	1571.9	1302.1	1191.5	1159.8
20°	1910.4	1482.6	1218.4	1105.0	1078.9
22.5°	1850.9	1394.2	1132.9	1030.6	1001.7
25°	1783.9	1307.7	1057.5	956.1	921.7
27.5°	1712.3	1224.0	987.8	875.2	839.0
30°	1629.5	1144.0	916.2	798.0	764.5
32.5°	1545.8	1065.0	840.8	729.2	702.2
35°	1453.8	990.6	768.3	670.6	647.4
37.5°	1360.7	918.9	703.2	617.6	597.1
40°	1259.4	849.2	643.6	568.3	551.6
42.5°	1158.0	779.4	589.7	524.6	508.8
45°	1056.6	713.4	540.4	484.6	469.7
47.5°	954.3	648.3	494.8	445.5	433.4
50°	855.7	586.9	452.0	409.2	399.0
52.5°	759.9	529.2	411.1	374.8	363.7
55°	666.0	475.3	374.8	341.3	333.0
57.5°	586.0	425.1	338.6	309.7	303.2
60°	509.7	376.7	304.1	280.0	273.5
62.5°	438.1	332.0	269.7	250.2	245.5
65°	373.0	288.3	237.2	220.4	215.8
67.5°	313.4	248.3	203.7	191.6	187.9
70°	261.4	208.3	173.9	163.7	160.9
72.5°	209.3	170.2	144.2	136.7	133.9
75°	164.6	135.8	116.3	110.7	107.0
77.5°	123.7	103.2	89.3	84.6	81.8
80°	85.6	73.5	63.2	61.4	58.6
82.5°	53.9	46.5	40.9	40.0	37.2
85°	27.0	25.1	21.4	21.4	19.5
87.5°	9.3	8.4	8.4	8.4	7.4
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	19.08	20.56	19.44	20.88	21.19	16.40	17.89	16.76	18.20	18.51
	3H	20.67	22.00	21.05	22.33	22.69	18.00	19.33	18.38	19.66	20.02
	4H	21.20	22.45	21.60	22.80	23.18	18.56	19.81	18.96	20.16	20.53
	6H	21.53	22.68	21.94	23.05	23.44	18.91	20.07	19.32	20.43	20.82
	8H	21.61	22.70	22.03	23.09	23.50	19.00	20.10	19.43	20.49	20.89
	12H	21.64	22.69	22.07	23.07	23.50	19.03	20.09	19.47	20.47	20.90
4H	2H	19.30	20.55	19.70	20.90	21.28	17.08	18.33	17.48	18.67	19.05
	3H	21.09	22.12	21.50	22.52	22.93	18.86	19.90	19.27	20.30	20.70
	4H	21.73	22.66	22.16	23.08	23.52	19.53	20.46	19.96	20.88	21.31
	6H	22.17	22.98	22.63	23.43	23.89	19.98	20.79	20.44	21.24	21.70
	8H	22.28	23.04	22.75	23.49	23.95	20.10	20.86	20.56	21.30	21.77
	12H	22.34	23.02	22.83	23.50	23.97	20.16	20.83	20.64	21.31	21.78
8H	4H	21.83	22.59	22.30	23.03	23.50	19.83	20.58	20.29	21.03	21.50
	6H	22.35	22.97	22.85	23.46	23.94	20.38	21.00	20.87	21.49	21.97
	8H	22.50	23.06	23.02	23.57	24.06	20.54	21.10	21.06	21.61	22.10
	12H	22.61	23.10	23.12	23.59	24.16	20.65	21.14	21.16	21.64	22.20
12H	4H	21.82	22.50	22.30	22.98	23.45	19.85	20.52	20.33	21.00	21.48
	6H	22.34	22.90	22.86	23.41	23.90	20.41	20.97	20.93	21.48	21.97
	8H	22.54	23.03	23.05	23.52	24.09	20.63	21.12	21.14	21.61	22.18