

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: P1217417

Luminaire Tested: S124DRP-S485D950-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217417
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-S485D950-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

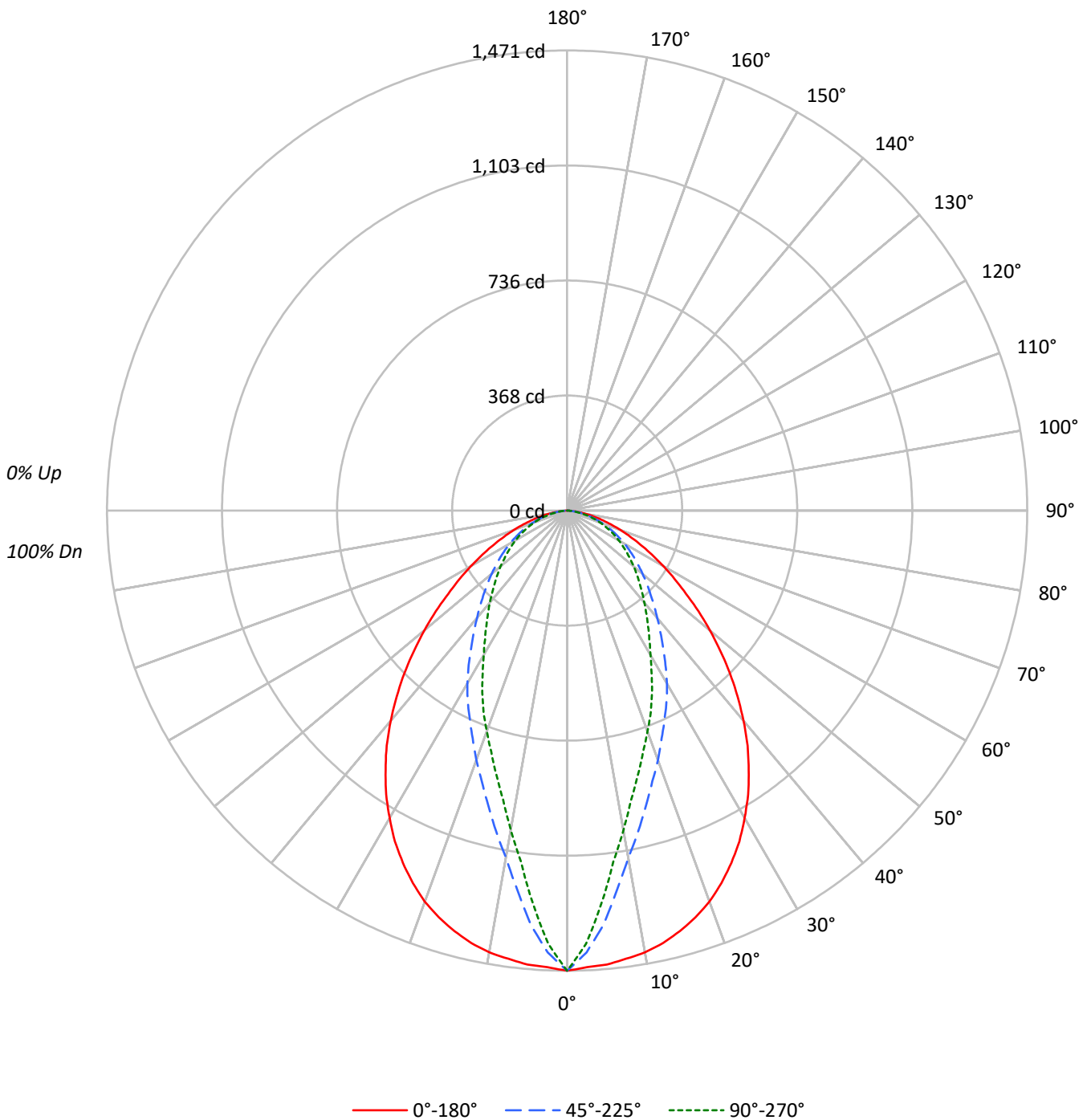
Lumens per Lamp: N/A
Luminaire Lumens: 2062.9 lumens
Efficiency: N/A
Efficacy: 108.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
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	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°	13005	13005	13005
5°	12928	11796	11181
10°	12874	10112	9304
15°	12740	8923	8004
20°	12517	7983	7069
25°	12119	7184	6262
30°	11585	6513	5435
35°	10926	5774	4866
40°	10122	5173	4433
45°	9200	4705	4090
50°	8196	4330	3822
55°	7148	4023	3575
60°	6276	3745	3367
65°	5433	3456	3144
70°	4705	3130	2898
75°	3915	2767	2545
80°	3035	2240	2077
85°	1907	1512	1380

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9200 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.1	6.0
10°-20°	292.5	14.2
20°-30°	373.8	18.1
30°-40°	379.6	18.4
40°-50°	336.5	16.3
50°-60°	264.4	12.8
60°-70°	180.1	8.7
70°-80°	92.4	4.5
80°-90°	20.5	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°	789.4	38.3
0°-40°	1169.0	56.7
0°-60°	1769.9	85.8
0°-90°	2062.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2062.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1471	1471	1471	1471	1471	
5°	1457	1420	1329	1278	1260	138
15°	1392	1162	975	894	874	392
25°	1242	911	736	666	642	571
35°	1012	690	535	467	451	632
45°	736	497	376	337	327	567
55°	464	331	261	238	232	419
65°	260	201	165	154	150	260
75°	115	95	81	77	74	123
85°	19	18	15	15	14	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1470.9	1470.9	1470.9	1470.9	1470.9
2.5°	1460.6	1462.5	1413.9	1396.4	1386.1
5°	1456.7	1419.7	1329.1	1277.9	1259.8
7.5°	1445.0	1364.7	1221.6	1151.0	1132.2
10°	1434.0	1301.9	1126.3	1056.4	1036.3
12.5°	1415.9	1232.6	1049.9	969.6	945.6
15°	1391.9	1162.0	974.8	894.5	874.4
17.5°	1363.4	1094.6	906.8	829.7	807.7
20°	1330.4	1032.4	848.5	769.5	751.3
22.5°	1288.9	970.9	788.9	717.6	697.6
25°	1242.3	910.7	736.4	665.8	641.9
27.5°	1192.4	852.4	687.9	609.5	584.2
30°	1134.8	796.7	638.0	555.7	532.4
32.5°	1076.5	741.6	585.5	507.8	489.0
35°	1012.3	689.8	535.0	467.0	450.8
37.5°	947.6	639.9	489.7	430.1	415.8
40°	877.0	591.3	448.2	395.7	384.1
42.5°	806.4	542.8	410.6	365.3	354.3
45°	735.8	496.8	376.3	337.4	327.1
47.5°	664.5	451.4	344.6	310.2	301.8
50°	595.9	408.7	314.8	285.0	277.9
52.5°	529.2	368.5	286.3	261.0	253.2
55°	463.7	331.0	261.0	237.7	231.9
57.5°	408.0	296.0	235.8	215.7	211.1
60°	354.9	262.3	211.8	195.0	190.4
62.5°	305.1	231.2	187.8	174.2	171.0
65°	259.7	200.8	165.2	153.5	150.3
67.5°	218.3	172.9	141.8	133.4	130.8
70°	182.0	145.1	121.1	114.0	112.1
72.5°	145.7	118.5	100.4	95.2	93.3
75°	114.6	94.6	81.0	77.1	74.5
77.5°	86.1	71.9	62.2	58.9	57.0
80°	59.6	51.2	44.0	42.7	40.8
82.5°	37.6	32.4	28.5	27.9	25.9
85°	18.8	17.5	14.9	14.9	13.6
87.5°	6.5	5.8	5.8	5.8	5.2
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	17.82	19.30	18.18	19.62	19.93	15.14	16.63	15.51	16.94	17.26
	3H	19.41	20.74	19.79	21.07	21.43	16.74	18.07	17.12	18.40	18.76
	4H	19.94	21.19	20.34	21.54	21.92	17.30	18.55	17.70	18.90	19.28
	6H	20.27	21.43	20.68	21.79	22.18	17.65	18.81	18.07	19.18	19.57
	8H	20.35	21.45	20.78	21.84	22.24	17.74	18.84	18.17	19.23	19.63
	12H	20.38	21.43	20.81	21.81	22.24	17.78	18.83	18.21	19.21	19.64
4H	2H	18.05	19.30	18.45	19.64	20.02	15.82	17.07	16.22	17.42	17.80
	3H	19.83	20.87	20.24	21.27	21.67	17.61	18.64	18.02	19.04	19.44
	4H	20.47	21.40	20.90	21.82	22.26	18.27	19.20	18.70	19.62	20.06
	6H	20.92	21.73	21.37	22.17	22.63	18.73	19.54	19.18	19.98	20.44
	8H	21.03	21.78	21.49	22.23	22.70	18.84	19.60	19.31	20.04	20.51
	12H	21.09	21.76	21.57	22.24	22.71	18.90	19.58	19.39	20.06	20.53
8H	4H	20.57	21.33	21.04	21.77	22.24	18.57	19.33	19.03	19.77	20.24
	6H	21.09	21.71	21.59	22.21	22.68	19.12	19.74	19.62	20.23	20.71
	8H	21.25	21.81	21.76	22.32	22.81	19.29	19.84	19.80	20.36	20.84
	12H	21.35	21.84	21.86	22.33	22.90	19.39	19.89	19.90	20.38	20.94
12H	4H	20.56	21.24	21.05	21.72	22.19	18.59	19.27	19.08	19.75	20.22
	6H	21.08	21.64	21.60	22.15	22.64	19.16	19.71	19.67	20.23	20.71
	8H	21.28	21.77	21.79	22.26	22.83	19.37	19.86	19.88	20.35	20.92