

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: P1217412

Luminaire Tested: S124DRP-S485D850-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217412
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-S485D850-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

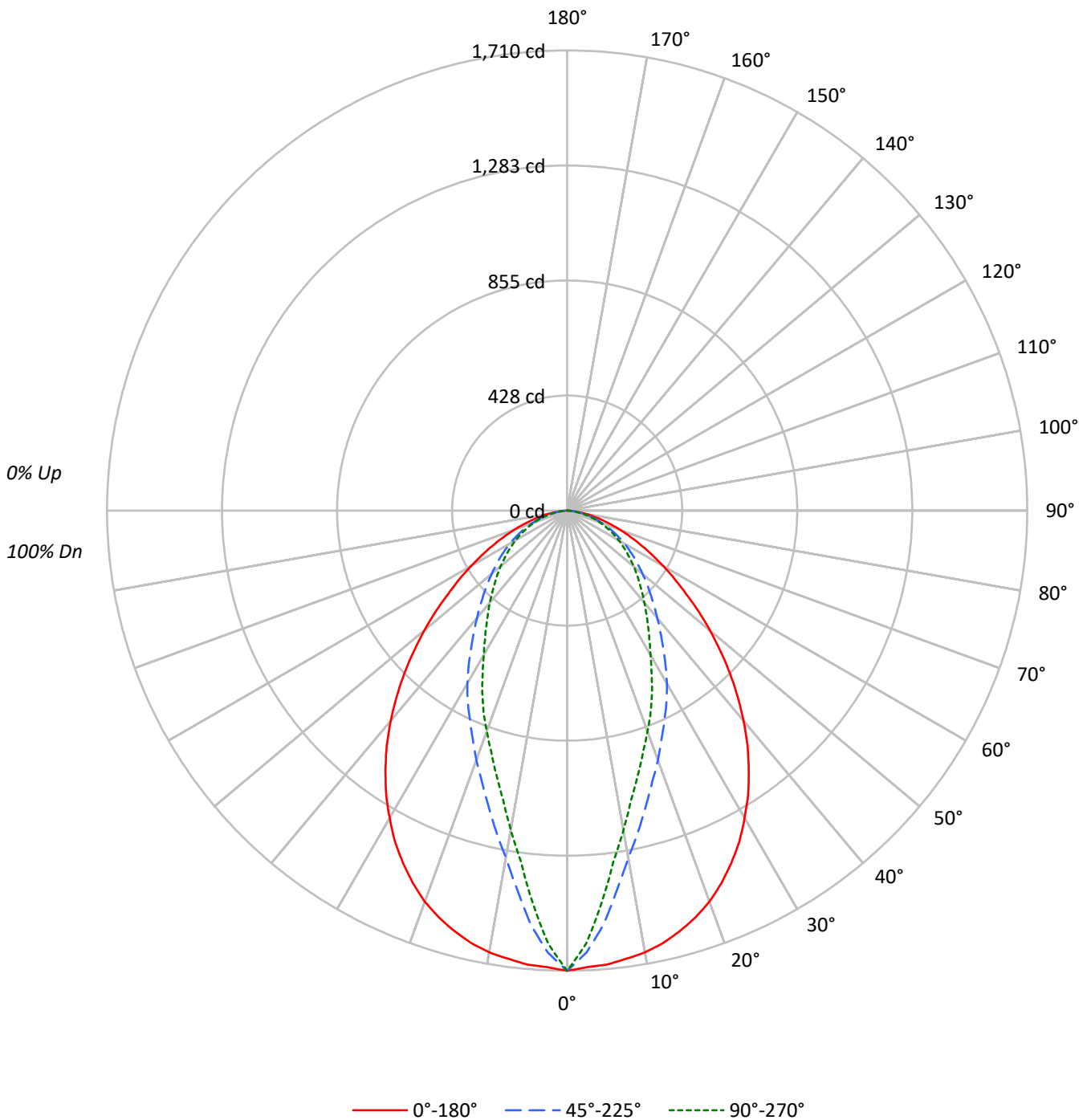
Lumens per Lamp: N/A
Luminaire Lumens: 2398.1 lumens
Efficiency: N/A
Efficacy: 125.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
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

TEST NUMBER: P1217412

CATALOG NUMBER: S124DRP-S485D850-X4F0-XX-UDD-G-W

Luminous Intensity Polar Plot





TEST NUMBER: P1217412

CATALOG NUMBER: S124DRP-S485D850-X4F0-XX-UDD-G-W

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°	15118	15118	15118
5°	15028	13712	12997
10°	14966	11755	10816
15°	14810	10372	9304
20°	14551	9280	8218
25°	14088	8352	7279
30°	13467	7571	6318
35°	12702	6712	5656
40°	11767	6013	5153
45°	10694	5470	4754
50°	9528	5033	4443
55°	8310	4677	4154
60°	7296	4353	3915
65°	6316	4017	3655
70°	5470	3640	3368
75°	4554	3214	2958
80°	3528	2607	2413
85°	2211	1755	1603

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10694 cd/sqm



TEST NUMBER: P1217412

CATALOG NUMBER: S124DRP-S485D850-X4F0-XX-UDD-G-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.1	6.0
10°-20°	340.0	14.2
20°-30°	434.5	18.1
30°-40°	441.3	18.4
40°-50°	391.2	16.3
50°-60°	307.4	12.8
60°-70°	209.3	8.7
70°-80°	107.5	4.5
80°-90°	23.8	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°	917.6	38.3
0°-40°	1358.9	56.7
0°-60°	2057.5	85.8
0°-90°	2398.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2398.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1710	1710	1710	1710	1710	
5°	1693	1650	1545	1486	1464	161
15°	1618	1351	1133	1040	1016	456
25°	1444	1059	856	774	746	664
35°	1177	802	622	543	524	734
45°	855	578	438	392	380	659
55°	539	385	303	276	270	487
65°	302	233	192	178	175	302
75°	133	110	94	90	87	143
85°	22	20	17	17	16	29
90°	0	0	0	0	0	



TEST NUMBER: P1217412

CATALOG NUMBER: S124DRP-S485D850-X4F0-XX-UDD-G-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1709.9	1709.9	1709.9	1709.9	1709.9
2.5°	1697.9	1700.1	1643.6	1623.3	1611.3
5°	1693.3	1650.4	1545.0	1485.5	1464.4
7.5°	1679.8	1586.4	1420.0	1338.0	1316.1
10°	1667.0	1513.4	1309.3	1228.0	1204.7
12.5°	1645.9	1432.8	1220.5	1127.1	1099.3
15°	1618.0	1350.8	1133.2	1039.8	1016.5
17.5°	1584.9	1272.4	1054.1	964.5	938.9
20°	1546.5	1200.2	986.3	894.5	873.4
22.5°	1498.3	1128.6	917.1	834.2	810.9
25°	1444.1	1058.6	856.1	774.0	746.2
27.5°	1386.1	990.9	799.6	708.5	679.1
30°	1319.1	926.1	741.6	646.0	618.9
32.5°	1251.4	862.1	680.6	590.3	568.5
35°	1176.8	801.9	621.9	542.9	524.0
37.5°	1101.5	743.9	569.2	499.9	483.4
40°	1019.5	687.4	521.0	460.0	446.5
42.5°	937.4	631.0	477.4	424.7	411.9
45°	855.3	577.5	437.5	392.3	380.2
47.5°	772.5	524.8	400.6	360.7	350.9
50°	692.7	475.1	365.9	331.3	323.0
52.5°	615.1	428.4	332.8	303.4	294.4
55°	539.1	384.7	303.4	276.3	269.5
57.5°	474.3	344.1	274.1	250.7	245.5
60°	412.6	304.9	246.2	226.6	221.4
62.5°	354.6	268.8	218.3	202.5	198.8
65°	301.9	233.4	192.0	178.4	174.7
67.5°	253.7	201.0	164.9	155.1	152.1
70°	211.6	168.7	140.8	132.5	130.3
72.5°	169.4	137.8	116.7	110.7	108.4
75°	133.3	109.9	94.1	89.6	86.6
77.5°	100.1	83.6	72.3	68.5	66.3
80°	69.3	59.5	51.2	49.7	47.4
82.5°	43.7	37.6	33.1	32.4	30.1
85°	21.8	20.3	17.3	17.3	15.8
87.5°	7.5	6.8	6.8	6.8	6.0
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1217412
 CATALOG NUMBER: S124DRP-S485D850-X4F0-XX-UDD-G-W

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	18.34	19.83	18.71	20.14	20.46	15.67	17.15	16.03	17.47	17.78
	3H	19.93	21.27	20.31	21.59	21.96	17.26	18.60	17.64	18.93	19.29
	4H	20.46	21.71	20.86	22.06	22.44	17.82	19.07	18.22	19.42	19.80
	6H	20.79	21.95	21.21	22.32	22.71	18.18	19.33	18.59	19.70	20.09
	8H	20.87	21.97	21.30	22.36	22.76	18.26	19.36	18.69	19.75	20.15
	12H	20.90	21.95	21.33	22.33	22.76	18.30	19.35	18.73	19.73	20.16
4H	2H	18.57	19.82	18.97	20.17	20.55	16.34	17.59	16.74	17.94	18.32
	3H	20.35	21.39	20.76	21.79	22.19	18.13	19.17	18.54	19.57	19.97
	4H	20.99	21.93	21.43	22.34	22.78	18.79	19.72	19.23	20.14	20.58
	6H	21.44	22.25	21.90	22.69	23.15	19.25	20.06	19.71	20.50	20.96
	8H	21.55	22.31	22.02	22.75	23.22	19.37	20.12	19.83	20.57	21.03
	12H	21.61	22.28	22.09	22.76	23.23	19.43	20.10	19.91	20.58	21.05
8H	4H	21.10	21.85	21.56	22.30	22.77	19.09	19.85	19.56	20.29	20.76
	6H	21.61	22.24	22.11	22.73	23.21	19.64	20.26	20.14	20.76	21.23
	8H	21.77	22.33	22.29	22.84	23.33	19.81	20.37	20.32	20.88	21.37
	12H	21.87	22.36	22.38	22.86	23.42	19.92	20.41	20.43	20.90	21.47
12H	4H	21.09	21.76	21.57	22.24	22.71	19.12	19.79	19.60	20.27	20.74
	6H	21.61	22.17	22.12	22.68	23.17	19.68	20.24	20.19	20.75	21.24
	8H	21.80	22.29	22.31	22.79	23.35	19.89	20.38	20.40	20.88	21.44