

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: P1217411

Luminaire Tested: S124DRP-S485D840-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217411
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-S485D840-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

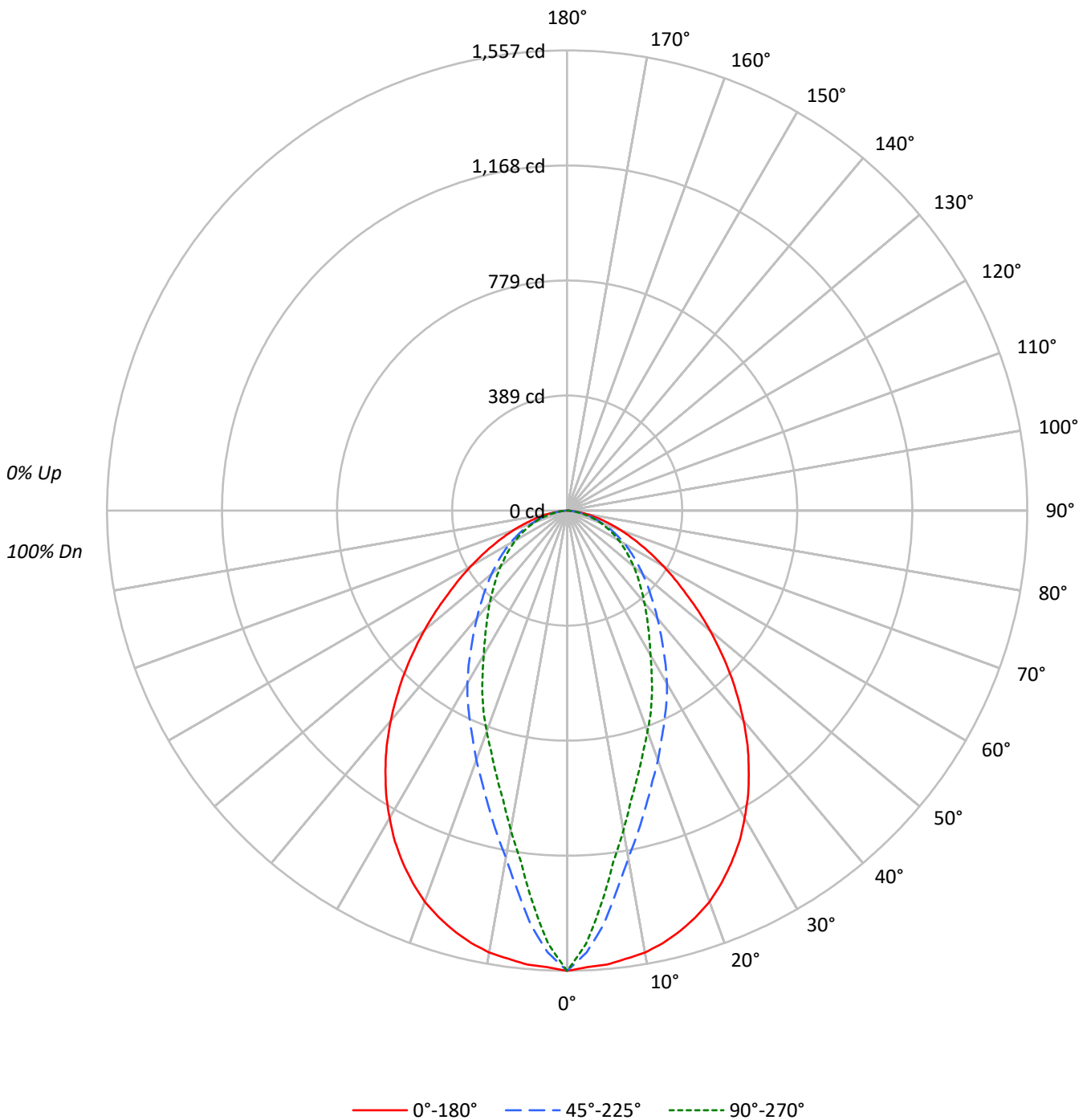
Lumens per Lamp: N/A
Luminaire Lumens: 2183.7 lumens
Efficiency: N/A
Efficacy: 114.3 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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	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°	13767	13767	13767
5°	13685	12486	11835
10°	13628	10704	9849
15°	13486	9445	8472
20°	13250	8451	7483
25°	12828	7605	6629
30°	12263	6894	5754
35°	11566	6112	5151
40°	10714	5476	4693
45°	9739	4980	4329
50°	8676	4583	4045
55°	7567	4259	3784
60°	6643	3964	3565
65°	5751	3657	3328
70°	4981	3314	3066
75°	4147	2928	2692
80°	3213	2373	2200
85°	2019	1603	1461

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9739 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.3	6.0
10°-20°	309.6	14.2
20°-30°	395.6	18.1
30°-40°	401.8	18.4
40°-50°	356.2	16.3
50°-60°	279.9	12.8
60°-70°	190.6	8.7
70°-80°	97.9	4.5
80°-90°	21.7	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°	835.6	38.3
0°-40°	1237.4	56.7
0°-60°	1873.6	85.8
0°-90°	2183.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2183.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1557	1557	1557	1557	1557	
5°	1542	1503	1407	1353	1334	146
15°	1473	1230	1032	947	926	415
25°	1315	964	780	705	680	604
35°	1072	730	566	494	477	669
45°	779	526	398	357	346	600
55°	491	350	276	252	246	443
65°	275	212	175	162	159	275
75°	121	100	86	82	79	130
85°	20	18	16	16	14	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1557.1	1557.1	1557.1	1557.1	1557.1
2.5°	1546.1	1548.1	1496.7	1478.2	1467.2
5°	1542.0	1502.9	1406.9	1352.7	1333.5
7.5°	1529.6	1444.6	1293.1	1218.4	1198.5
10°	1518.0	1378.1	1192.3	1118.3	1097.0
12.5°	1498.8	1304.7	1111.4	1026.4	1001.0
15°	1473.4	1230.0	1031.9	946.8	925.6
17.5°	1443.2	1158.7	959.9	878.3	855.0
20°	1408.3	1092.9	898.2	814.5	795.3
22.5°	1364.4	1027.7	835.1	759.7	738.4
25°	1315.0	964.0	779.6	704.8	679.5
27.5°	1262.2	902.3	728.1	645.2	618.4
30°	1201.2	843.3	675.3	588.3	563.6
32.5°	1139.5	785.0	619.8	537.5	517.6
35°	1071.6	730.2	566.3	494.3	477.2
37.5°	1003.1	677.4	518.3	455.3	440.2
40°	928.3	626.0	474.5	418.9	406.6
42.5°	853.6	574.6	434.7	386.7	375.0
45°	778.9	525.9	398.3	357.2	346.2
47.5°	703.4	477.9	364.8	328.4	319.5
50°	630.8	432.6	333.2	301.7	294.1
52.5°	560.2	390.1	303.0	276.3	268.1
55°	490.9	350.4	276.3	251.6	245.5
57.5°	431.9	313.3	249.6	228.3	223.5
60°	375.7	277.7	224.2	206.4	201.6
62.5°	322.9	244.8	198.8	184.4	181.0
65°	274.9	212.5	174.8	162.5	159.1
67.5°	231.1	183.1	150.2	141.2	138.5
70°	192.7	153.6	128.2	120.7	118.6
72.5°	154.3	125.5	106.3	100.8	98.7
75°	121.4	100.1	85.7	81.6	78.8
77.5°	91.2	76.1	65.8	62.4	60.3
80°	63.1	54.2	46.6	45.3	43.2
82.5°	39.8	34.3	30.2	29.5	27.4
85°	19.9	18.5	15.8	15.8	14.4
87.5°	6.9	6.2	6.2	6.2	5.5
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	18.01	19.50	18.38	19.81	20.13	15.34	16.83	15.70	17.14	17.45
	3H	19.61	20.94	19.99	21.27	21.63	16.94	18.27	17.32	18.60	18.96
	4H	20.14	21.39	20.54	21.74	22.12	17.50	18.75	17.90	19.09	19.47
	6H	20.47	21.62	20.88	21.99	22.38	17.85	19.01	18.26	19.37	19.76
	8H	20.55	21.65	20.97	22.03	22.44	17.94	19.04	18.37	19.43	19.83
	12H	20.58	21.63	21.01	22.01	22.44	17.97	19.03	18.41	19.41	19.84
4H	2H	18.24	19.49	18.64	19.84	20.22	16.02	17.27	16.42	17.61	17.99
	3H	20.03	21.06	20.44	21.46	21.87	17.80	18.84	18.21	19.24	19.64
	4H	20.67	21.60	21.10	22.02	22.46	18.47	19.40	18.90	19.82	20.25
	6H	21.11	21.92	21.57	22.37	22.83	18.92	19.73	19.38	20.18	20.64
	8H	21.23	21.98	21.69	22.43	22.89	19.04	19.80	19.50	20.24	20.71
	12H	21.28	21.96	21.77	22.44	22.91	19.10	19.77	19.58	20.25	20.73
8H	4H	20.77	21.53	21.24	21.97	22.44	18.77	19.52	19.23	19.97	20.44
	6H	21.29	21.91	21.79	22.40	22.88	19.32	19.94	19.81	20.43	20.91
	8H	21.45	22.00	21.96	22.51	23.00	19.48	20.04	20.00	20.55	21.04
	12H	21.55	22.04	22.06	22.53	23.10	19.59	20.08	20.10	20.58	21.14
12H	4H	20.76	21.44	21.25	21.92	22.39	18.79	19.46	19.27	19.94	20.42
	6H	21.28	21.84	21.80	22.35	22.84	19.35	19.91	19.87	20.42	20.91
	8H	21.48	21.97	21.99	22.46	23.03	19.57	20.06	20.08	20.55	21.12