

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: P1439948

Luminaire Tested: S124DR-S1005D950-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439948
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G2-2509-563-1)
Test Lab: INNOVATION CENTER
Issue Date: 4/2/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DR-S1005D950-X4F0-XX-UDD-FLB-W
Description: DEFINE 4, DIRECT RECESSED WITH BATWING FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

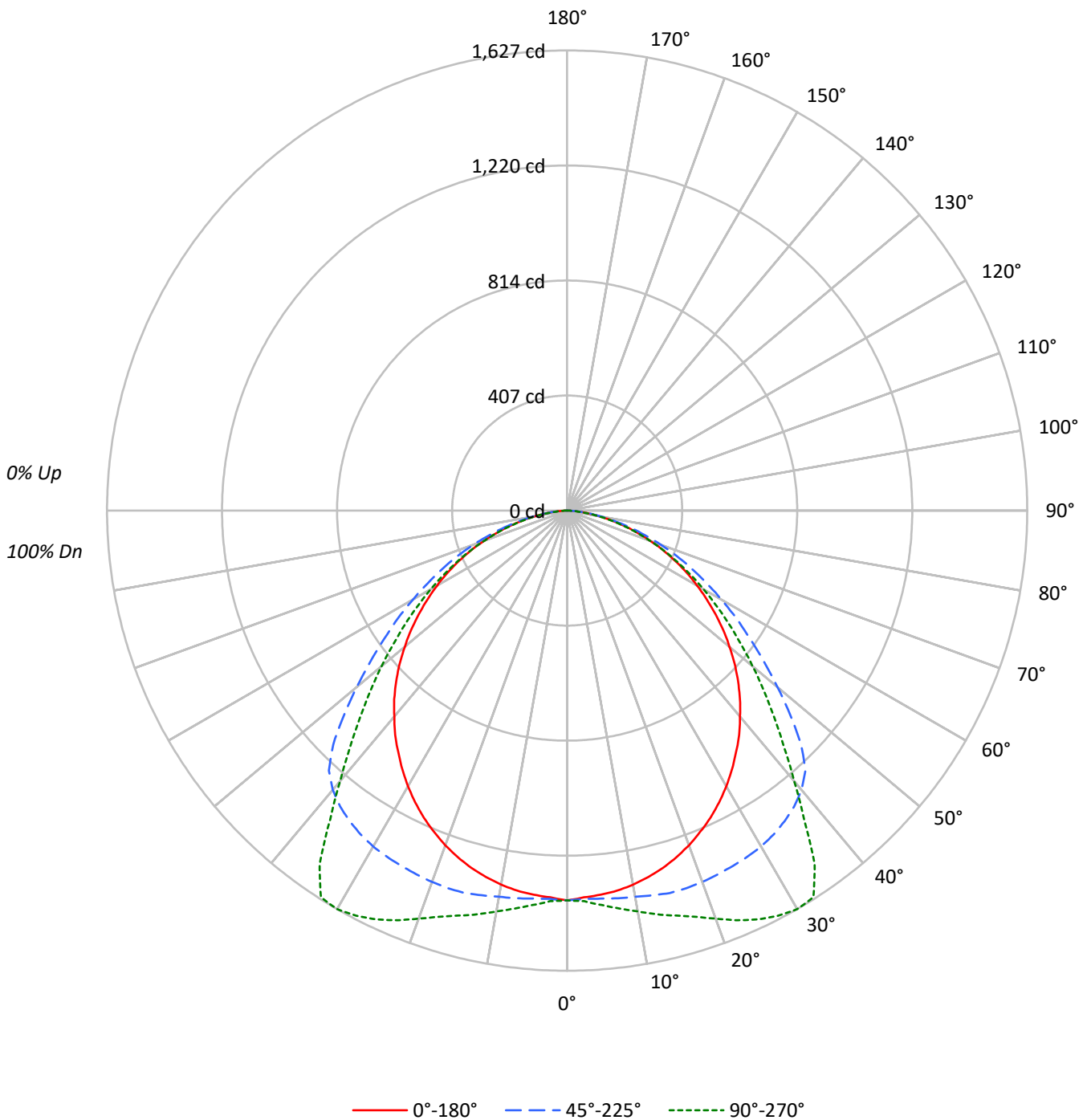
Lumens per Lamp: N/A
Luminaire Lumens: 4189.0 lumens
Efficiency: N/A
Efficacy: 100.0 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.53 / 1.51
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
Input Voltage (V): 120
Input Current (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	109	105	101	97	107	103	99	95	98	95	92	94	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	73	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	66	63	60
4	83	72	63	57	81	70	62	56	68	61	55	66	60	55	63	58	54	52
5	77	64	55	49	75	63	55	49	61	54	48	59	53	47	57	52	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12187	12187	12187
5°	12101	12221	12425
10°	12059	12448	12921
15°	11972	12815	13570
20°	11848	13147	14445
25°	11692	13526	15558
30°	11489	14003	16613
35°	11242	14468	16468
40°	10975	14878	14410
45°	10689	14630	12955
50°	10308	13359	11777
55°	9884	12156	10759
60°	9400	11145	9855
65°	8828	10159	9000
70°	8078	9092	8042
75°	7116	7809	6979
80°	5855	6268	5647
85°	4119	4250	3845

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 14630 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.3	3.2
10°-20°	396.4	9.5
20°-30°	645.2	15.4
30°-40°	819.3	19.6
40°-50°	798.3	19.1
50°-60°	654.5	15.6
60°-70°	456.7	10.9
70°-80°	234.4	5.6
80°-90°	52.0	1.2
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°	1173.8	28.0
0°-40°	1993.1	47.6
0°-60°	3445.9	82.3
0°-90°	4189.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4189.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1378	1378	1378	1378	1378	
5°	1364	1384	1377	1386	1400	130
15°	1308	1349	1400	1456	1482	369
25°	1198	1276	1386	1530	1595	552
35°	1042	1143	1340	1535	1526	652
45°	855	960	1170	1073	1036	659
55°	641	740	789	722	698	573
65°	422	483	486	446	430	418
75°	208	231	229	212	204	222
85°	41	42	42	39	38	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1378.4	1378.4	1378.4	1378.4	1378.4
2.5°	1368.9	1386.5	1374.3	1379.7	1382.4
5°	1363.5	1383.8	1377.0	1386.5	1400.0
7.5°	1355.4	1378.4	1382.4	1401.4	1419.0
10°	1343.2	1370.3	1386.5	1419.0	1439.2
12.5°	1327.0	1360.8	1393.3	1437.9	1462.2
15°	1308.0	1348.6	1400.0	1455.5	1482.5
17.5°	1285.0	1333.7	1400.0	1469.0	1505.5
20°	1259.3	1316.2	1397.3	1486.6	1535.3
22.5°	1229.6	1297.2	1391.9	1506.9	1567.8
25°	1198.5	1275.6	1386.5	1529.9	1594.8
27.5°	1163.3	1249.9	1379.7	1547.5	1615.1
30°	1125.4	1218.8	1371.6	1555.6	1627.3
32.5°	1084.8	1182.2	1358.1	1555.6	1620.5
35°	1041.6	1143.0	1340.5	1535.3	1525.8
37.5°	999.6	1101.1	1318.9	1436.5	1377.0
40°	950.9	1056.4	1289.1	1297.2	1248.5
42.5°	904.9	1009.1	1247.2	1179.5	1136.2
45°	854.9	960.4	1170.1	1072.7	1036.1
47.5°	803.5	907.6	1070.0	976.6	942.8
50°	749.4	854.9	971.2	886.0	856.2
52.5°	696.6	798.1	876.5	802.1	773.7
55°	641.2	739.9	788.6	722.3	698.0
57.5°	585.7	680.4	708.8	647.9	624.9
60°	531.6	616.8	630.3	577.6	557.3
62.5°	477.5	550.5	555.9	510.0	492.4
65°	422.0	482.9	485.6	446.4	430.2
67.5°	367.9	418.0	418.0	384.2	370.6
70°	312.5	354.4	351.7	324.6	311.1
72.5°	259.7	289.5	286.8	266.5	257.0
75°	208.3	231.3	228.6	212.4	204.3
77.5°	159.6	175.8	173.1	162.3	155.6
80°	115.0	124.4	123.1	115.0	110.9
82.5°	75.7	81.2	78.5	73.0	70.3
85°	40.6	41.9	41.9	39.2	37.9
87.5°	14.9	14.9	14.9	14.9	13.5
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	20.37	21.97	20.74	22.28	22.60	20.16	21.75	20.52	22.07	22.38
	3H	21.87	23.31	22.25	23.64	24.00	21.63	23.07	22.00	23.39	23.75
	4H	22.38	23.73	22.78	24.08	24.45	22.12	23.48	22.52	23.82	24.20
	6H	22.70	23.95	23.11	24.32	24.71	22.44	23.69	22.85	24.06	24.45
	8H	22.78	23.97	23.21	24.36	24.76	22.52	23.71	22.94	24.10	24.50
	12H	22.82	23.96	23.25	24.35	24.77	22.55	23.69	22.98	24.07	24.50
4H	2H	20.99	22.35	21.39	22.69	23.07	20.82	22.18	21.22	22.52	22.90
	3H	22.72	23.85	23.13	24.25	24.65	22.49	23.62	22.90	24.02	24.42
	4H	23.35	24.37	23.78	24.78	25.22	23.09	24.10	23.52	24.52	24.96
	6H	23.78	24.66	24.23	25.11	25.56	23.50	24.39	23.96	24.83	25.29
	8H	23.89	24.72	24.35	25.16	25.63	23.60	24.43	24.07	24.87	25.34
	12H	23.96	24.70	24.44	25.17	25.64	23.66	24.40	24.14	24.88	25.35
8H	4H	23.59	24.42	24.05	24.86	25.33	23.36	24.19	23.82	24.63	25.10
	6H	24.12	24.80	24.61	25.29	25.77	23.86	24.55	24.36	25.04	25.51
	8H	24.28	24.90	24.79	25.40	25.89	24.01	24.62	24.52	25.13	25.62
	12H	24.39	24.93	24.90	25.42	25.99	24.11	24.65	24.62	25.14	25.71
12H	4H	23.60	24.35	24.08	24.82	25.29	23.38	24.12	23.86	24.60	25.07
	6H	24.14	24.75	24.65	25.26	25.75	23.89	24.51	24.40	25.02	25.50
	8H	24.35	24.89	24.86	25.38	25.94	24.08	24.63	24.59	25.12	25.68