

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: P1439945

Luminaire Tested: S124DR-S1005D930-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439945
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-S1005D930-X4F0-XX-UDD-FLB-W
Description: DEFINE 4, DIRECT RECESSED WITH BATWING FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

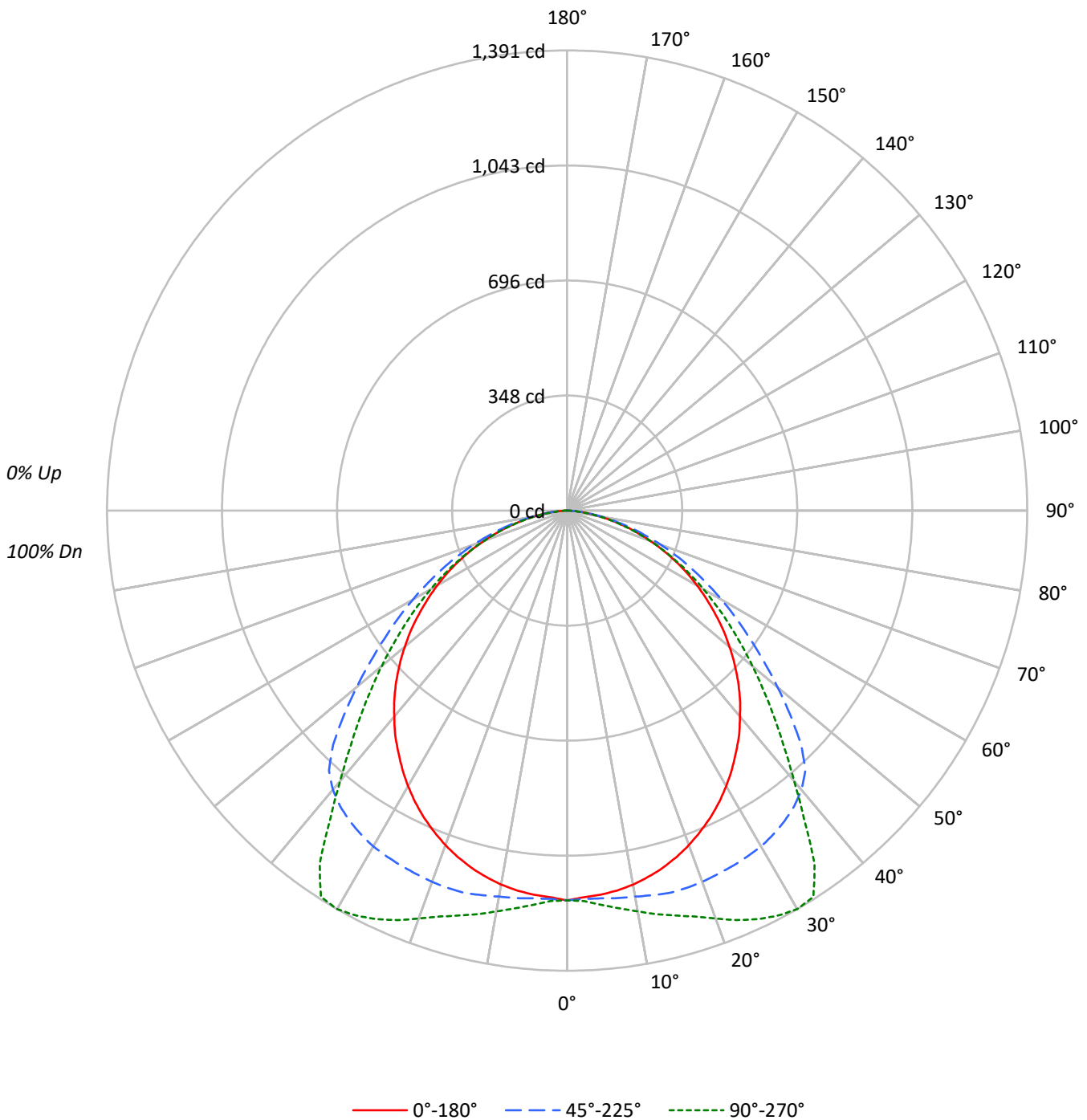
Lumens per Lamp: N/A
Luminaire Lumens: 3579.9 lumens
Efficiency: N/A
Efficacy: 85.4 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.53 / 1.51
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
Input Voltage (V): 120
Input Current (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	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°	10415	10415	10415
5°	10342	10444	10619
10°	10306	10638	11043
15°	10232	10952	11597
20°	10126	11236	12345
25°	9991	11559	13296
30°	9819	11967	14198
35°	9607	12365	14075
40°	9380	12715	12315
45°	9135	12502	11072
50°	8809	11416	10066
55°	8446	10389	9195
60°	8033	9526	8422
65°	7546	8682	7690
70°	6902	7771	6874
75°	6081	6675	5964
80°	5005	5356	4827
85°	3520	3632	3287

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 12502 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.0	3.2
10°-20°	338.7	9.5
20°-30°	551.4	15.4
30°-40°	700.2	19.6
40°-50°	682.3	19.1
50°-60°	559.4	15.6
60°-70°	390.3	10.9
70°-80°	200.3	5.6
80°-90°	44.4	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°	1003.1	28.0
0°-40°	1703.3	47.6
0°-60°	2944.9	82.3
0°-90°	3579.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3579.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1178	1178	1178	1178	1178	
5°	1165	1183	1177	1185	1196	111
15°	1118	1152	1196	1244	1267	315
25°	1024	1090	1185	1307	1363	472
35°	890	977	1146	1312	1304	557
45°	731	821	1000	917	886	563
55°	548	632	674	617	596	490
65°	361	413	415	382	368	357
75°	178	198	195	182	175	190
85°	35	36	36	34	32	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1178.0	1178.0	1178.0	1178.0	1178.0
2.5°	1169.9	1184.9	1174.5	1179.1	1181.4
5°	1165.3	1182.6	1176.8	1184.9	1196.5
7.5°	1158.3	1178.0	1181.4	1197.6	1212.7
10°	1147.9	1171.0	1184.9	1212.7	1230.0
12.5°	1134.0	1162.9	1190.7	1228.8	1249.6
15°	1117.9	1152.5	1196.5	1243.9	1267.0
17.5°	1098.2	1139.8	1196.5	1255.4	1286.6
20°	1076.2	1124.8	1194.2	1270.5	1312.1
22.5°	1050.8	1108.6	1189.5	1287.8	1339.8
25°	1024.2	1090.1	1184.9	1307.4	1362.9
27.5°	994.2	1068.2	1179.1	1322.5	1380.3
30°	961.8	1041.6	1172.2	1329.4	1390.7
32.5°	927.1	1010.4	1160.6	1329.4	1384.9
35°	890.1	976.8	1145.6	1312.1	1304.0
37.5°	854.3	941.0	1127.1	1227.7	1176.8
40°	812.7	902.8	1101.7	1108.6	1067.0
42.5°	773.4	862.4	1065.8	1008.0	971.0
45°	730.6	820.8	999.9	916.7	885.5
47.5°	686.7	775.7	914.4	834.6	805.7
50°	640.4	730.6	830.0	757.2	731.8
52.5°	595.3	682.0	749.1	685.5	661.2
55°	547.9	632.3	674.0	617.3	596.5
57.5°	500.6	581.5	605.7	553.7	534.1
60°	454.3	527.1	538.7	493.6	476.3
62.5°	408.1	470.5	475.1	435.8	420.8
65°	360.7	412.7	415.0	381.5	367.6
67.5°	314.4	357.2	357.2	328.3	316.7
70°	267.0	302.9	300.6	277.4	265.9
72.5°	222.0	247.4	245.1	227.7	219.6
75°	178.0	197.7	195.4	181.5	174.6
77.5°	136.4	150.3	148.0	138.7	132.9
80°	98.3	106.4	105.2	98.3	94.8
82.5°	64.7	69.4	67.0	62.4	60.1
85°	34.7	35.8	35.8	33.5	32.4
87.5°	12.7	12.7	12.7	12.7	11.6
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	19.83	21.42	20.19	21.74	22.05	19.61	21.21	19.97	21.52	21.84
	3H	21.33	22.77	21.71	23.10	23.46	21.08	22.52	21.46	22.85	23.21
	4H	21.83	23.18	22.23	23.53	23.91	21.58	22.93	21.98	23.28	23.65
	6H	22.15	23.40	22.56	23.77	24.16	21.89	23.15	22.30	23.51	23.90
	8H	22.24	23.43	22.66	23.82	24.22	21.97	23.16	22.39	23.55	23.95
	12H	22.27	23.42	22.70	23.80	24.23	22.00	23.15	22.43	23.53	23.96
4H	2H	20.45	21.80	20.85	22.15	22.53	20.28	21.63	20.68	21.98	22.36
	3H	22.18	23.30	22.59	23.70	24.10	21.94	23.07	22.35	23.47	23.87
	4H	22.81	23.82	23.24	24.24	24.67	22.54	23.56	22.97	23.97	24.41
	6H	23.23	24.12	23.69	24.56	25.02	22.96	23.84	23.41	24.28	24.74
	8H	23.35	24.17	23.81	24.62	25.08	23.06	23.89	23.52	24.33	24.79
	12H	23.41	24.15	23.89	24.63	25.10	23.12	23.86	23.60	24.34	24.81
8H	4H	23.05	23.88	23.51	24.32	24.78	22.81	23.64	23.28	24.09	24.55
	6H	23.57	24.26	24.07	24.75	25.22	23.32	24.00	23.81	24.49	24.97
	8H	23.74	24.35	24.25	24.86	25.35	23.46	24.08	23.97	24.59	25.07
	12H	23.84	24.39	24.35	24.88	25.44	23.56	24.11	24.07	24.60	25.16
12H	4H	23.06	23.80	23.54	24.28	24.75	22.83	23.57	23.31	24.05	24.52
	6H	23.59	24.21	24.10	24.72	25.20	23.35	23.96	23.86	24.47	24.96
	8H	23.80	24.35	24.31	24.84	25.40	23.54	24.08	24.05	24.57	25.13