

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: P1439944

Luminaire Tested: S124DR-S1005D927-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439944
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-S1005D927-X4F0-XX-UDD-FLB-W
Description: DEFINE 4, DIRECT RECESSED WITH BATWING FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

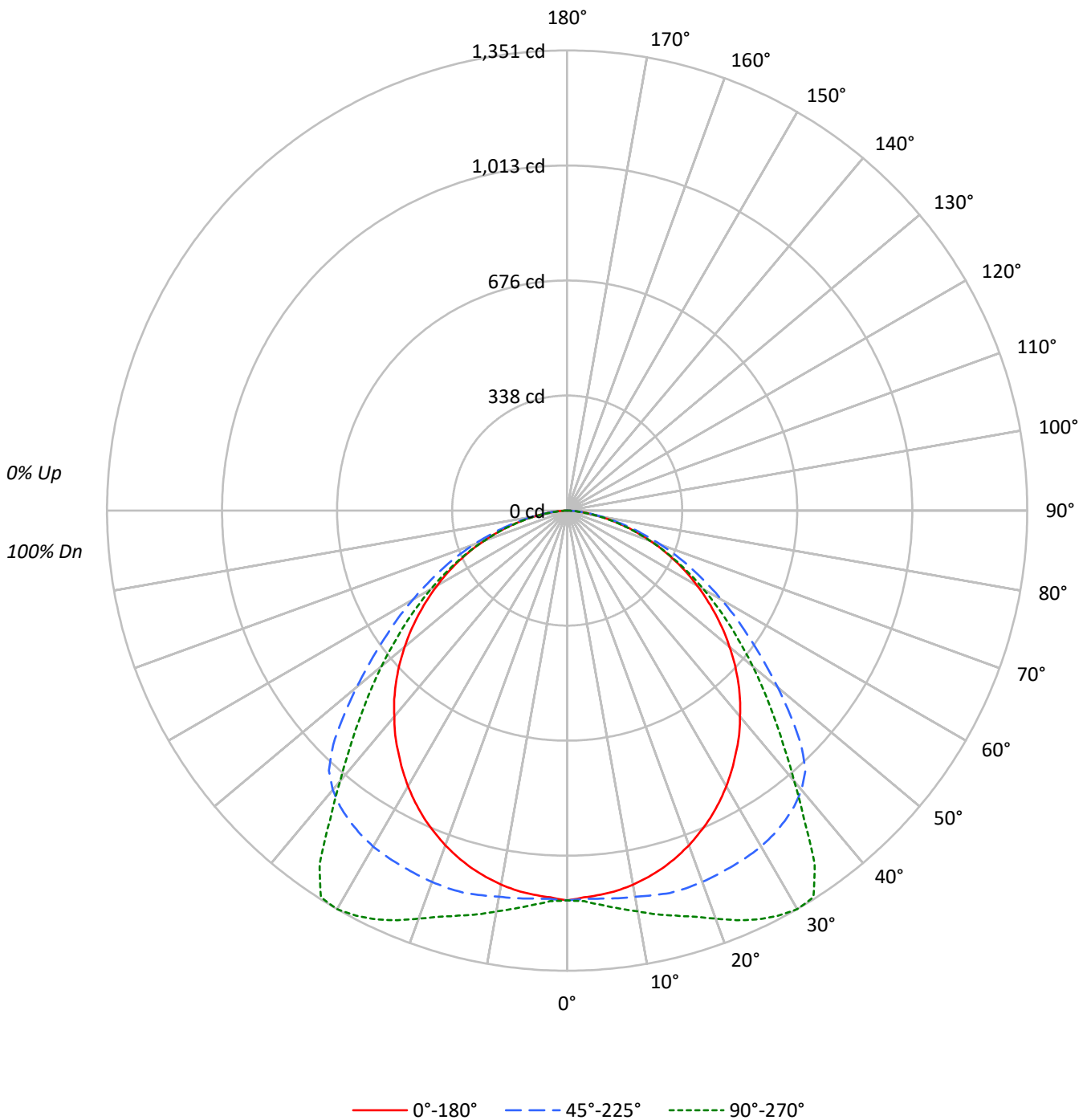
Lumens per Lamp: N/A
Luminaire Lumens: 3478.5 lumens
Efficiency: N/A
Efficacy: 83.0 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.53 / 1.51
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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°	10120	10120	10120
5°	10048	10149	10317
10°	10014	10336	10729
15°	9942	10641	11269
20°	9839	10917	11995
25°	9709	11231	12919
30°	9540	11628	13795
35°	9335	12014	13675
40°	9113	12354	11965
45°	8876	12148	10758
50°	8560	11093	9780
55°	8207	10093	8934
60°	7805	9255	8184
65°	7331	8435	7473
70°	6708	7548	6677
75°	5910	6484	5794
80°	4862	5204	4689
85°	3419	3530	3195

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 12148 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.8	3.2
10°-20°	329.1	9.5
20°-30°	535.7	15.4
30°-40°	680.3	19.6
40°-50°	662.9	19.1
50°-60°	543.5	15.6
60°-70°	379.2	10.9
70°-80°	194.6	5.6
80°-90°	43.2	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°	974.7	28.0
0°-40°	1655.0	47.6
0°-60°	2861.4	82.3
0°-90°	3478.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3478.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1145	1145	1145	1145	1145	
5°	1132	1149	1144	1151	1162	108
15°	1086	1120	1162	1209	1231	306
25°	995	1059	1151	1270	1324	458
35°	865	949	1113	1275	1267	541
45°	710	798	972	891	860	547
55°	532	614	655	600	580	476
65°	350	401	403	371	357	347
75°	173	192	190	176	170	184
85°	34	35	35	33	32	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1144.6	1144.6	1144.6	1144.6	1144.6
2.5°	1136.7	1151.3	1141.2	1145.7	1147.9
5°	1132.2	1149.1	1143.5	1151.3	1162.5
7.5°	1125.5	1144.6	1147.9	1163.7	1178.3
10°	1115.4	1137.8	1151.3	1178.3	1195.1
12.5°	1101.9	1130.0	1156.9	1194.0	1214.2
15°	1086.2	1119.9	1162.5	1208.6	1231.1
17.5°	1067.1	1107.5	1162.5	1219.8	1250.2
20°	1045.7	1092.9	1160.3	1234.4	1274.9
22.5°	1021.0	1077.2	1155.8	1251.3	1301.8
25°	995.2	1059.2	1151.3	1270.4	1324.3
27.5°	966.0	1037.9	1145.7	1285.0	1341.1
30°	934.5	1012.0	1139.0	1291.7	1351.2
32.5°	900.8	981.7	1127.7	1291.7	1345.6
35°	864.9	949.1	1113.1	1274.9	1267.0
37.5°	830.1	914.3	1095.2	1192.9	1143.5
40°	789.6	877.2	1070.4	1077.2	1036.7
42.5°	751.4	837.9	1035.6	979.5	943.5
45°	709.9	797.5	971.6	890.7	860.4
47.5°	667.2	753.7	888.5	811.0	782.9
50°	622.3	709.9	806.5	735.7	711.0
52.5°	578.5	662.7	727.9	666.1	642.5
55°	532.4	614.4	654.8	599.8	579.6
57.5°	486.4	565.0	588.6	538.0	518.9
60°	441.4	512.2	523.4	479.6	462.8
62.5°	396.5	457.2	461.6	423.5	408.9
65°	350.4	401.0	403.2	370.7	357.2
67.5°	305.5	347.1	347.1	319.0	307.8
70°	259.5	294.3	292.0	269.6	258.3
72.5°	215.7	240.4	238.1	221.3	213.4
75°	173.0	192.1	189.8	176.3	169.6
77.5°	132.5	146.0	143.8	134.8	129.2
80°	95.5	103.3	102.2	95.5	92.1
82.5°	62.9	67.4	65.1	60.7	58.4
85°	33.7	34.8	34.8	32.6	31.5
87.5°	12.4	12.4	12.4	12.4	11.2
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	19.73	21.32	20.09	21.64	21.95	19.51	21.11	19.87	21.42	21.74
	3H	21.23	22.67	21.61	23.00	23.36	20.98	22.42	21.36	22.75	23.11
	4H	21.73	23.08	22.13	23.43	23.81	21.48	22.83	21.88	23.18	23.55
	6H	22.05	23.30	22.46	23.67	24.06	21.79	23.05	22.20	23.41	23.80
	8H	22.14	23.33	22.56	23.72	24.12	21.87	23.06	22.29	23.45	23.85
	12H	22.17	23.32	22.60	23.70	24.13	21.90	23.05	22.33	23.43	23.86
4H	2H	20.35	21.70	20.75	22.05	22.43	20.18	21.53	20.58	21.88	22.26
	3H	22.08	23.20	22.49	23.60	24.00	21.85	22.97	22.25	23.37	23.77
	4H	22.71	23.72	23.14	24.14	24.57	22.44	23.46	22.87	23.87	24.31
	6H	23.13	24.02	23.59	24.46	24.92	22.86	23.74	23.31	24.18	24.64
	8H	23.25	24.07	23.71	24.52	24.98	22.96	23.79	23.42	24.23	24.70
	12H	23.31	24.05	23.79	24.53	25.00	23.02	23.76	23.50	24.24	24.71
8H	4H	22.95	23.78	23.41	24.22	24.68	22.71	23.54	23.18	23.99	24.45
	6H	23.47	24.16	23.97	24.65	25.12	23.22	23.90	23.71	24.39	24.87
	8H	23.64	24.25	24.15	24.76	25.24	23.36	23.98	23.87	24.49	24.97
	12H	23.74	24.29	24.25	24.78	25.34	23.46	24.01	23.97	24.50	25.06
12H	4H	22.96	23.70	23.44	24.18	24.65	22.73	23.47	23.21	23.95	24.42
	6H	23.49	24.11	24.00	24.62	25.10	23.25	23.86	23.76	24.37	24.86
	8H	23.70	24.25	24.21	24.74	25.30	23.44	23.98	23.95	24.47	25.04