

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: P1439967

Luminaire Tested: S124DR-S675D830-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439967
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-S675D830-X4F0-XX-UDD-FLB-W
Description: DEFINE 4, DIRECT RECESSED WITH BATWING FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

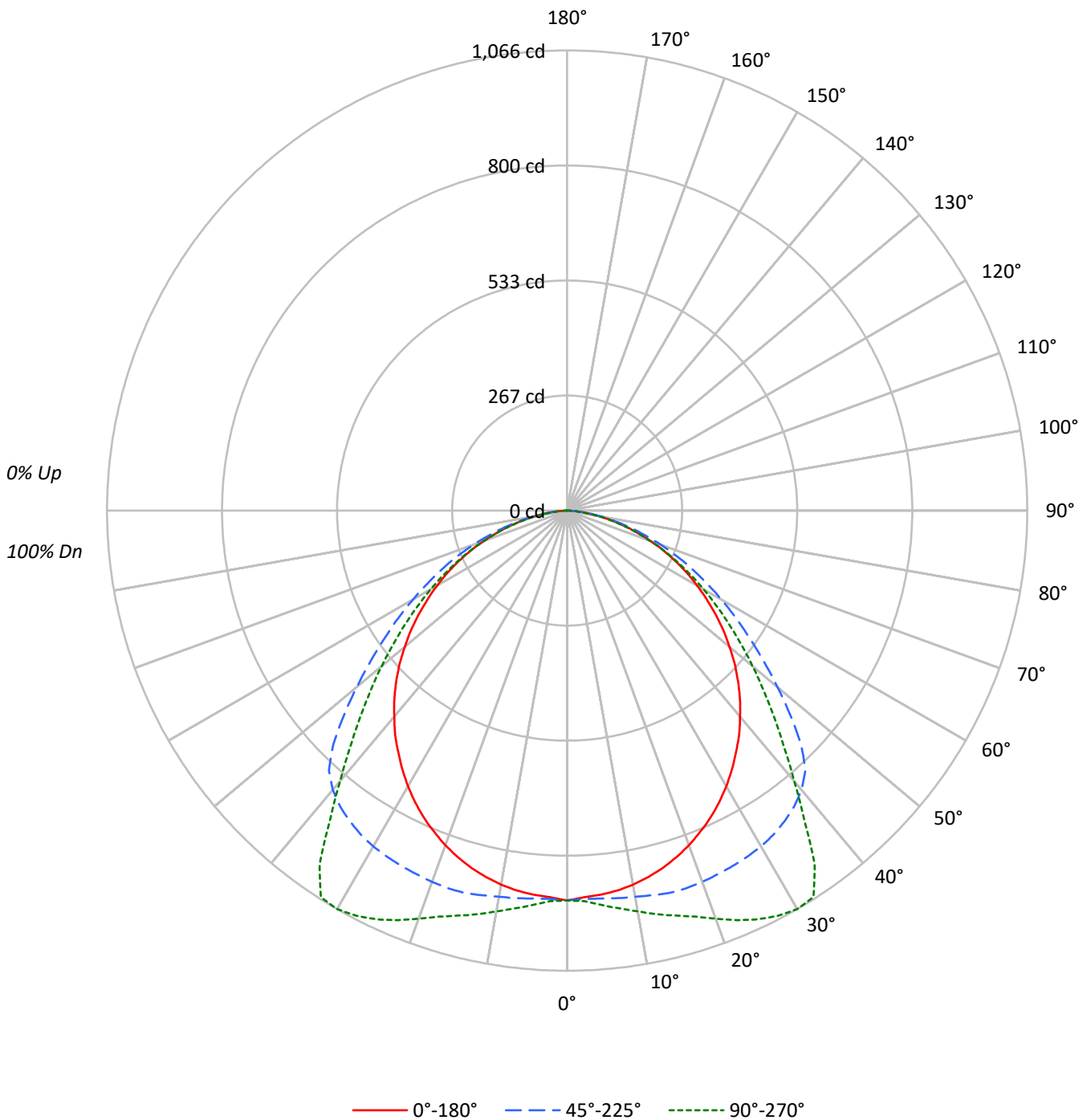
Lumens per Lamp: N/A
Luminaire Lumens: 2744.2 lumens
Efficiency: N/A
Efficacy: 103.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.53 / 1.51
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	109	105	101	97	107	103	99	95	98	95	92	94	92	90	91	89	87	85				85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	73	71				71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	66	63	60				60
4	83	72	63	57	81	70	62	56	68	61	55	66	60	55	63	58	54	52				52
5	77	64	55	49	75	63	55	49	61	54	48	59	53	47	57	52	47	45				45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39				39
7	66	52	44	38	64	52	43	37	50	43	37	49	42	37	47	41	37	35				35
8	61	48	39	34	60	47	39	33	46	38	33	44	38	33	43	37	33	31				31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28				28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25				25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7984	7984	7984
5°	7927	8006	8140
10°	7900	8155	8464
15°	7843	8395	8890
20°	7762	8613	9463
25°	7659	8861	10192
30°	7527	9173	10883
35°	7364	9479	10789
40°	7190	9747	9440
45°	7002	9584	8487
50°	6752	8751	7715
55°	6474	7963	7047
60°	6159	7301	6456
65°	5785	6655	5895
70°	5292	5956	5268
75°	4663	5117	4571
80°	3834	4104	3702
85°	2698	2790	2516

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 9584 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.7	3.2
10°-20°	259.7	9.5
20°-30°	422.6	15.4
30°-40°	536.7	19.6
40°-50°	523.0	19.1
50°-60°	428.8	15.6
60°-70°	299.2	10.9
70°-80°	153.5	5.6
80°-90°	34.0	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°	768.9	28.0
0°-40°	1305.7	47.6
0°-60°	2257.4	82.3
0°-90°	2744.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2744.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	903	903	903	903	903	
5°	893	906	902	908	917	85
15°	857	884	917	954	971	242
25°	785	836	908	1002	1045	361
35°	682	749	878	1006	1000	427
45°	560	629	766	703	679	432
55°	420	485	517	473	457	376
65°	276	316	318	292	282	274
75°	136	152	150	139	134	145
85°	27	28	28	26	25	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	903.0	903.0	903.0	903.0	903.0
2.5°	896.8	908.3	900.3	903.9	905.6
5°	893.2	906.5	902.1	908.3	917.2
7.5°	887.9	903.0	905.6	918.0	929.6
10°	879.9	897.7	908.3	929.6	942.8
12.5°	869.3	891.5	912.7	942.0	957.9
15°	856.9	883.5	917.2	953.5	971.2
17.5°	841.8	873.7	917.2	962.3	986.3
20°	825.0	862.2	915.4	973.9	1005.8
22.5°	805.5	849.8	911.8	987.2	1027.0
25°	785.1	835.6	908.3	1002.2	1044.8
27.5°	762.1	818.8	903.9	1013.7	1058.0
30°	737.3	798.4	898.5	1019.1	1066.0
32.5°	710.7	774.5	889.7	1019.1	1061.6
35°	682.3	748.8	878.2	1005.8	999.6
37.5°	654.9	721.3	864.0	941.1	902.1
40°	623.0	692.1	844.5	849.8	817.9
42.5°	592.8	661.1	817.0	772.7	744.4
45°	560.0	629.2	766.5	702.7	678.8
47.5°	526.4	594.6	700.9	639.8	617.6
50°	490.9	560.0	636.2	580.4	560.9
52.5°	456.4	522.8	574.2	525.5	506.9
55°	420.0	484.7	516.6	473.2	457.2
57.5°	383.7	445.7	464.3	424.5	409.4
60°	348.3	404.1	412.9	378.4	365.1
62.5°	312.8	360.7	364.2	334.1	322.6
65°	276.5	316.4	318.1	292.4	281.8
67.5°	241.0	273.8	273.8	251.7	242.8
70°	204.7	232.2	230.4	212.7	203.8
72.5°	170.1	189.6	187.9	174.6	168.4
75°	136.5	151.5	149.8	139.1	133.8
77.5°	104.6	115.2	113.4	106.3	101.9
80°	75.3	81.5	80.6	75.3	72.7
82.5°	49.6	53.2	51.4	47.9	46.1
85°	26.6	27.5	27.5	25.7	24.8
87.5°	9.7	9.7	9.7	9.7	8.9
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	18.90	20.50	19.27	20.81	21.13	18.69	20.29	19.05	20.60	20.91
	3H	20.40	21.84	20.78	22.17	22.53	20.16	21.60	20.53	21.92	22.28
	4H	20.91	22.26	21.31	22.61	22.99	20.65	22.01	21.05	22.35	22.73
	6H	21.23	22.48	21.64	22.85	23.24	20.97	22.22	21.38	22.59	22.98
	8H	21.31	22.51	21.74	22.89	23.29	21.05	22.24	21.47	22.63	23.03
	12H	21.35	22.49	21.78	22.88	23.30	21.08	22.22	21.51	22.61	23.03
4H	2H	19.52	20.88	19.92	21.22	21.60	19.35	20.71	19.75	21.06	21.43
	3H	21.25	22.38	21.66	22.78	23.18	21.02	22.15	21.43	22.55	22.95
	4H	21.88	22.90	22.31	23.31	23.75	21.62	22.64	22.05	23.05	23.49
	6H	22.31	23.19	22.76	23.64	24.09	22.03	22.92	22.49	23.36	23.82
	8H	22.42	23.25	22.88	23.69	24.16	22.14	22.96	22.60	23.41	23.87
	12H	22.49	23.23	22.97	23.70	24.17	22.19	22.94	22.67	23.41	23.88
8H	4H	22.12	22.95	22.58	23.39	23.86	21.89	22.72	22.35	23.16	23.63
	6H	22.65	23.33	23.14	23.82	24.30	22.39	23.08	22.89	23.57	24.04
	8H	22.81	23.43	23.32	23.93	24.42	22.54	23.16	23.05	23.66	24.15
	12H	22.92	23.46	23.43	23.96	24.52	22.64	23.18	23.15	23.67	24.24
12H	4H	22.13	22.88	22.62	23.35	23.82	21.91	22.65	22.39	23.13	23.60
	6H	22.67	23.28	23.18	23.79	24.28	22.42	23.04	22.93	23.55	24.03
	8H	22.88	23.42	23.39	23.91	24.48	22.61	23.16	23.12	23.65	24.21