

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: P1439971

Luminaire Tested: S124DR-S675D927-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1439971  
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-S675D927-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

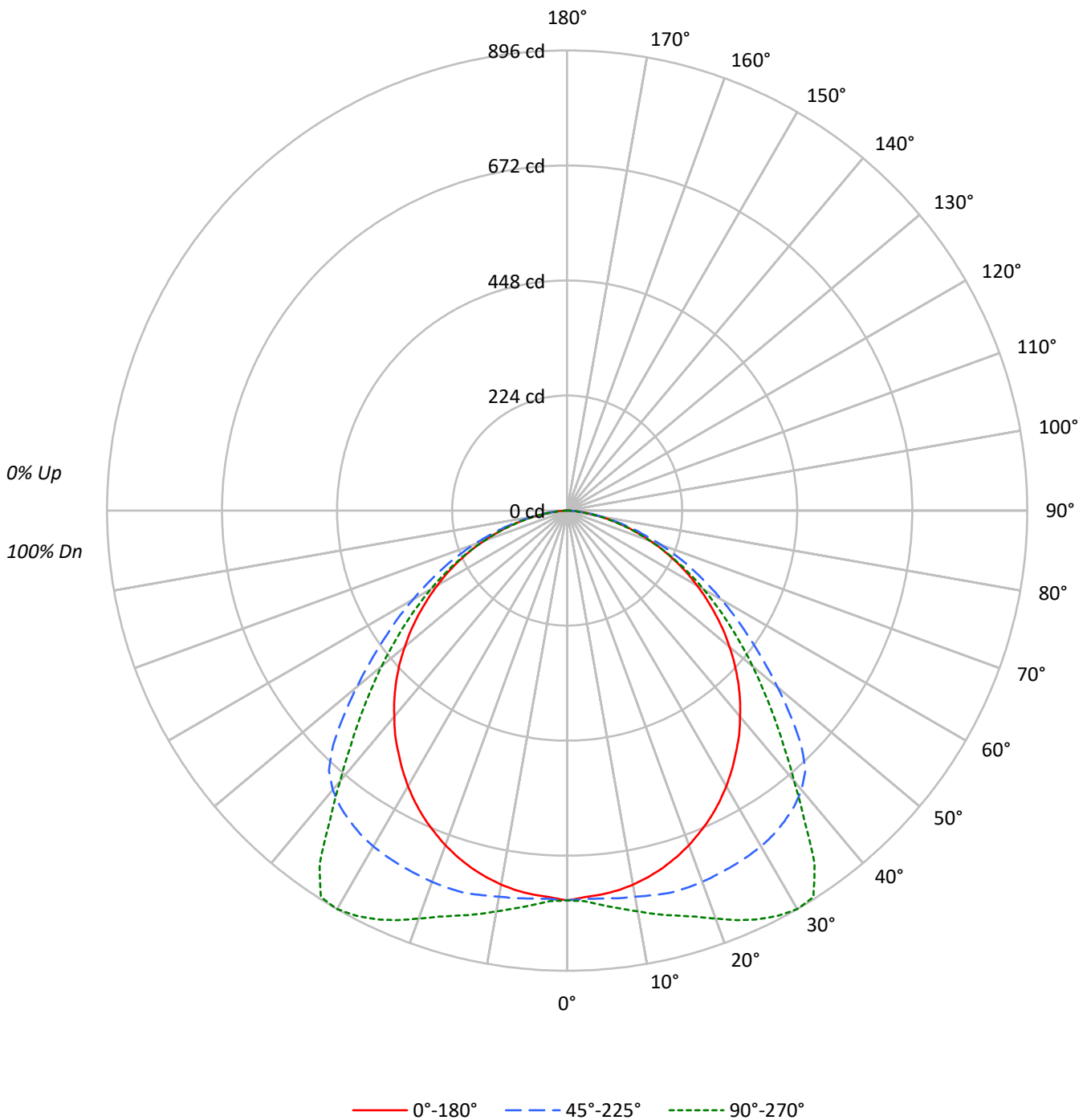
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2306.4 lumens  
Efficiency: N/A  
Efficacy: 87.4 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): 26.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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°	6710	6710	6710
5°	6663	6729	6841
10°	6640	6854	7114
15°	6592	7055	7472
20°	6524	7239	7953
25°	6438	7447	8566
30°	6327	7710	9147
35°	6190	7967	9067
40°	6043	8192	7934
45°	5885	8055	7133
50°	5675	7355	6484
55°	5441	6693	5924
60°	5176	6138	5425
65°	4862	5594	4954
70°	4446	5005	4428
75°	3918	4301	3843
80°	3223	3452	3111
85°	2262	2343	2120

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 8055 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.8	3.2
10°-20°	218.2	9.5
20°-30°	355.2	15.4
30°-40°	451.1	19.6
40°-50°	439.5	19.1
50°-60°	360.4	15.6
60°-70°	251.4	10.9
70°-80°	129.0	5.6
80°-90°	28.6	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°	646.3	28.0
0°-40°	1097.4	47.6
0°-60°	1897.3	82.3
0°-90°	2306.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2306.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	759	759	759	759	759	
5°	751	762	758	763	771	71
15°	720	742	771	801	816	203
25°	660	702	763	842	878	304
35°	574	629	738	845	840	359
45°	471	529	644	591	570	363
55°	353	407	434	398	384	316
65°	232	266	267	246	237	230
75°	115	127	126	117	112	122
85°	22	23	23	22	21	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	758.9	758.9	758.9	758.9	758.9
2.5°	753.7	763.4	756.7	759.7	761.2
5°	750.7	761.9	758.2	763.4	770.8
7.5°	746.3	758.9	761.2	771.6	781.3
10°	739.6	754.5	763.4	781.3	792.4
12.5°	730.6	749.2	767.1	791.7	805.1
15°	720.2	742.5	770.8	801.4	816.3
17.5°	707.5	734.3	770.8	808.8	828.9
20°	693.4	724.7	769.4	818.5	845.3
22.5°	677.0	714.2	766.4	829.7	863.2
25°	659.9	702.3	763.4	842.3	878.1
27.5°	640.5	688.2	759.7	852.0	889.3
30°	619.7	671.0	755.2	856.5	896.0
32.5°	597.3	650.9	747.8	856.5	892.2
35°	573.5	629.3	738.1	845.3	840.1
37.5°	550.4	606.2	726.2	790.9	758.2
40°	523.6	581.7	709.8	714.2	687.4
42.5°	498.3	555.6	686.7	649.4	625.6
45°	470.7	528.8	644.2	590.6	570.5
47.5°	442.4	499.7	589.1	537.7	519.1
50°	412.6	470.7	534.7	487.8	471.4
52.5°	383.6	439.4	482.6	441.7	426.0
55°	353.0	407.4	434.2	397.7	384.3
57.5°	322.5	374.6	390.3	356.7	344.1
60°	292.7	339.6	347.1	318.0	306.8
62.5°	262.9	303.1	306.1	280.8	271.1
65°	232.4	265.9	267.4	245.8	236.8
67.5°	202.6	230.1	230.1	211.5	204.1
70°	172.0	195.1	193.6	178.7	171.3
72.5°	143.0	159.4	157.9	146.7	141.5
75°	114.7	127.4	125.9	116.9	112.5
77.5°	87.9	96.8	95.3	89.4	85.6
80°	63.3	68.5	67.8	63.3	61.1
82.5°	41.7	44.7	43.2	40.2	38.7
85°	22.3	23.1	23.1	21.6	20.9
87.5°	8.2	8.2	8.2	8.2	7.4
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	18.30	19.90	18.66	20.21	20.53	18.08	19.68	18.45	20.00	20.31
	3H	19.80	21.24	20.18	21.57	21.93	19.55	20.99	19.93	21.32	21.68
	4H	20.30	21.66	20.70	22.00	22.38	20.05	21.40	20.45	21.75	22.13
	6H	20.62	21.88	21.04	22.24	22.63	20.37	21.62	20.78	21.98	22.37
	8H	20.71	21.90	21.13	22.29	22.69	20.44	21.64	20.87	22.02	22.42
	12H	20.75	21.89	21.18	22.27	22.70	20.48	21.62	20.91	22.00	22.43
4H	2H	18.92	20.27	19.32	20.62	21.00	18.75	20.10	19.15	20.45	20.83
	3H	20.65	21.78	21.06	22.17	22.58	20.42	21.54	20.83	21.94	22.34
	4H	21.28	22.29	21.71	22.71	23.14	21.01	22.03	21.45	22.45	22.88
	6H	21.71	22.59	22.16	23.03	23.49	21.43	22.31	21.88	22.75	23.21
	8H	21.82	22.65	22.28	23.09	23.55	21.53	22.36	21.99	22.80	23.27
	12H	21.88	22.62	22.36	23.10	23.57	21.59	22.33	22.07	22.81	23.28
8H	4H	21.52	22.35	21.98	22.79	23.26	21.29	22.11	21.75	22.56	23.02
	6H	22.04	22.73	22.54	23.22	23.69	21.79	22.47	22.28	22.96	23.44
	8H	22.21	22.82	22.72	23.33	23.82	21.94	22.55	22.45	23.06	23.54
	12H	22.32	22.86	22.82	23.35	23.91	22.03	22.58	22.54	23.07	23.63
12H	4H	21.53	22.27	22.01	22.75	23.22	21.30	22.05	21.79	22.52	22.99
	6H	22.06	22.68	22.58	23.19	23.68	21.82	22.43	22.33	22.94	23.43
	8H	22.27	22.82	22.78	23.31	23.87	22.01	22.55	22.52	23.05	23.61