

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: P1439972

Luminaire Tested: S124DR-S675D930-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1439972  
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-S675D930-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**

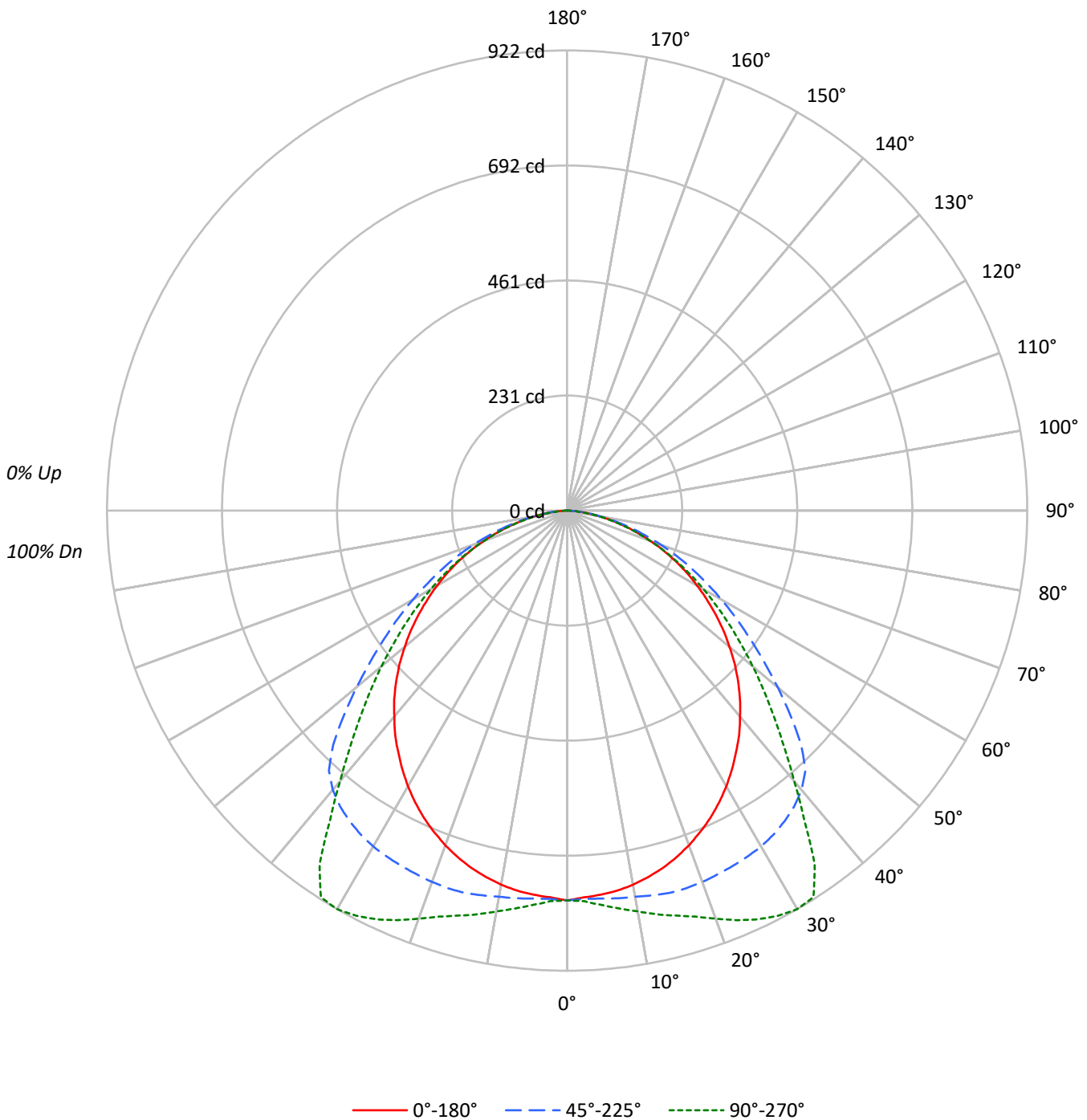
Lumens per Lamp: N/A  
Luminaire Lumens: 2373.7 lumens  
Efficiency: N/A  
Efficacy: 89.9 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.53 / 1.51  
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')  
CIE Type: Direct

Input Watts (W): 26.4  
Input Voltage (V): 120  
Input Current (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°	6906	6906	6906
5°	6857	6925	7041
10°	6833	7054	7322
15°	6784	7261	7690
20°	6714	7450	8186
25°	6625	7665	8816
30°	6510	7935	9414
35°	6370	8199	9332
40°	6220	8431	8166
45°	6057	8290	7341
50°	5840	7571	6674
55°	5600	6889	6096
60°	5326	6316	5584
65°	5004	5757	5098
70°	4578	5152	4557
75°	4031	4424	3952
80°	3320	3554	3203
85°	2333	2414	2181

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 8290 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.0	3.2
10°-20°	224.6	9.5
20°-30°	365.6	15.4
30°-40°	464.2	19.6
40°-50°	452.4	19.1
50°-60°	370.9	15.6
60°-70°	258.8	10.9
70°-80°	132.8	5.6
80°-90°	29.5	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°	665.1	28.0
0°-40°	1129.4	47.6
0°-60°	1952.7	82.3
0°-90°	2373.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2373.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	781	781	781	781	781	
5°	773	784	780	786	793	73
15°	741	764	793	825	840	209
25°	679	723	786	867	904	313
35°	590	648	760	870	865	369
45°	484	544	663	608	587	373
55°	363	419	447	409	396	325
65°	239	274	275	253	244	237
75°	118	131	130	120	116	126
85°	23	24	24	22	22	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	781.1	781.1	781.1	781.1	781.1
2.5°	775.7	785.7	778.8	781.8	783.4
5°	772.6	784.1	780.3	785.7	793.3
7.5°	768.0	781.1	783.4	794.1	804.1
10°	761.1	776.5	785.7	804.1	815.6
12.5°	751.9	771.1	789.5	814.8	828.6
15°	741.2	764.2	793.3	824.8	840.1
17.5°	728.2	755.8	793.3	832.4	853.1
20°	713.6	745.8	791.8	842.4	870.0
22.5°	696.8	735.1	788.7	853.9	888.4
25°	679.1	722.8	785.7	866.9	903.7
27.5°	659.2	708.3	781.8	876.9	915.2
30°	637.7	690.6	777.2	881.5	922.1
32.5°	614.7	669.9	769.6	881.5	918.3
35°	590.2	647.7	759.6	870.0	864.6
37.5°	566.4	623.9	747.3	814.0	780.3
40°	538.9	598.6	730.5	735.1	707.5
42.5°	512.8	571.8	706.7	668.4	643.9
45°	484.4	544.2	663.0	607.8	587.1
47.5°	455.3	514.3	606.3	553.4	534.3
50°	424.6	484.4	550.4	502.1	485.2
52.5°	394.8	452.2	496.7	454.5	438.4
55°	363.3	419.3	446.9	409.3	395.5
57.5°	331.9	385.6	401.6	367.2	354.1
60°	301.2	349.5	357.2	327.3	315.8
62.5°	270.6	312.0	315.0	289.0	279.0
65°	239.2	273.6	275.2	252.9	243.7
67.5°	208.5	236.9	236.9	217.7	210.0
70°	177.1	200.8	199.3	184.0	176.3
72.5°	147.2	164.0	162.5	151.0	145.6
75°	118.0	131.1	129.5	120.3	115.7
77.5°	90.4	99.6	98.1	92.0	88.1
80°	65.2	70.5	69.8	65.2	62.9
82.5°	42.9	46.0	44.5	41.4	39.9
85°	23.0	23.8	23.8	22.2	21.5
87.5°	8.4	8.4	8.4	8.4	7.7
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	18.40	20.00	18.76	20.31	20.63	18.18	19.78	18.55	20.10	20.41
	3H	19.90	21.34	20.28	21.67	22.03	19.65	21.09	20.03	21.42	21.78
	4H	20.40	21.76	20.80	22.11	22.48	20.15	21.50	20.55	21.85	22.23
	6H	20.73	21.98	21.14	22.34	22.73	20.47	21.72	20.88	22.08	22.47
	8H	20.81	22.00	21.23	22.39	22.79	20.54	21.74	20.97	22.13	22.52
	12H	20.85	21.99	21.28	22.37	22.80	20.58	21.72	21.01	22.10	22.53
4H	2H	19.02	20.37	19.42	20.72	21.10	18.85	20.20	19.25	20.55	20.93
	3H	20.75	21.88	21.16	22.28	22.68	20.52	21.65	20.93	22.04	22.44
	4H	21.38	22.39	21.81	22.81	23.25	21.11	22.13	21.55	22.55	22.98
	6H	21.81	22.69	22.26	23.13	23.59	21.53	22.41	21.98	22.85	23.31
	8H	21.92	22.75	22.38	23.19	23.65	21.63	22.46	22.09	22.90	23.37
	12H	21.98	22.72	22.46	23.20	23.67	21.69	22.43	22.17	22.91	23.38
8H	4H	21.62	22.45	22.08	22.89	23.36	21.39	22.21	21.85	22.66	23.12
	6H	22.14	22.83	22.64	23.32	23.79	21.89	22.57	22.38	23.06	23.54
	8H	22.31	22.92	22.82	23.43	23.92	22.04	22.65	22.55	23.16	23.65
	12H	22.42	22.96	22.92	23.45	24.01	22.14	22.68	22.64	23.17	23.73
12H	4H	21.63	22.37	22.11	22.85	23.32	21.41	22.15	21.89	22.62	23.09
	6H	22.16	22.78	22.68	23.29	23.78	21.92	22.53	22.43	23.04	23.53
	8H	22.37	22.92	22.88	23.41	23.97	22.11	22.65	22.62	23.15	23.71