

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: P1439699

Luminaire Tested: S122DR-S675D840-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439699
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G2-2602-702-1)
Test Lab: INNOVATION CENTER
Issue Date: 4/2/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122DR-S675D840-X4F0-XX-UDD-FLB-W
Description: DEFINE 2, DIRECT RECESSED WITH BATWING FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

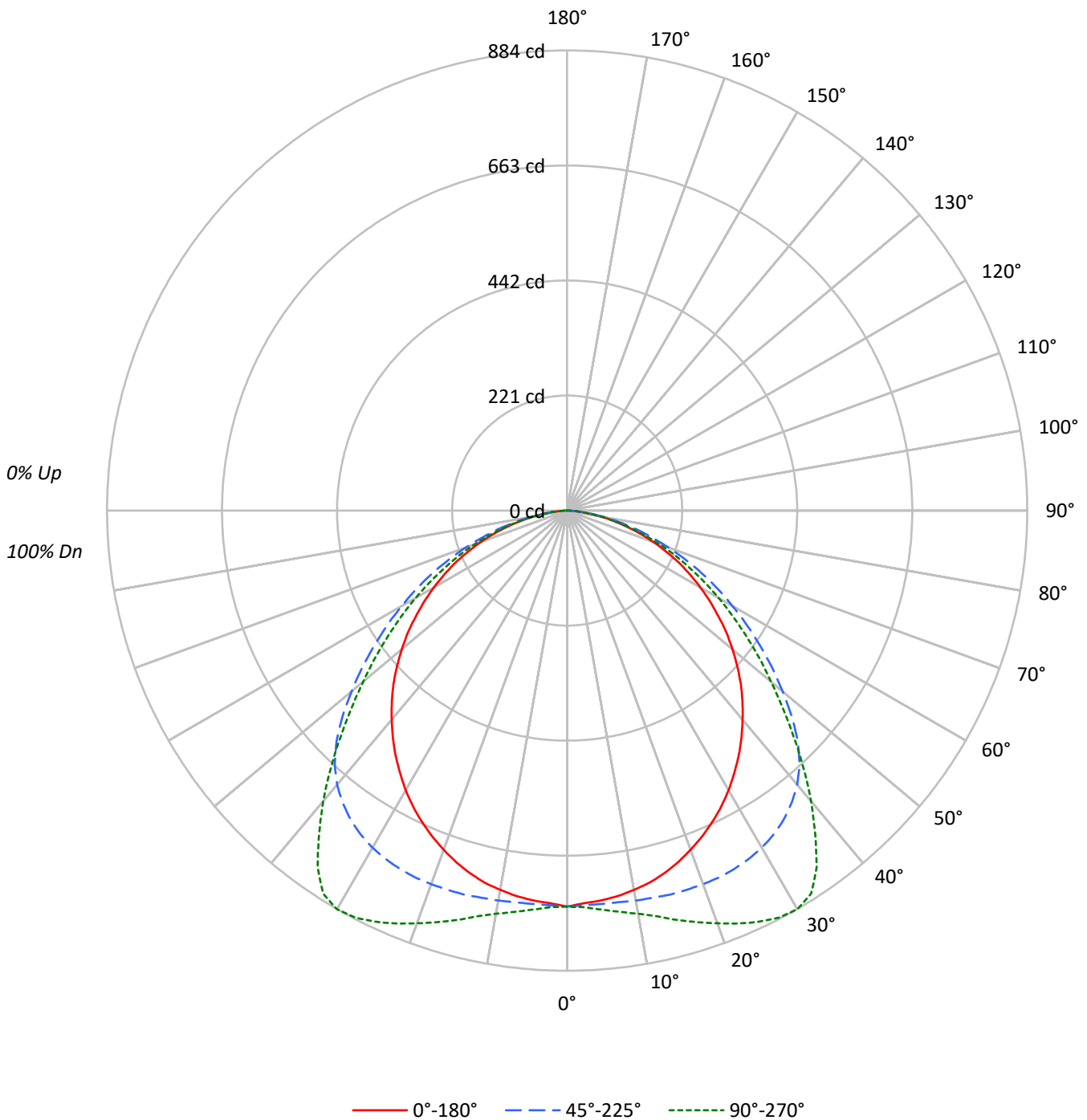
Lumens per Lamp: N/A
Luminaire Lumens: 2339.7 lumens
Efficiency: N/A
Efficacy: 88.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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																		
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	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	102	99	95	98	95	92	94	92	89	91	89	87	85																												
2	100	91	85	79	97	90	84	78	86	81	76	83	79	75	80	76	73	71																												
3	91	80	72	66	88	79	71	66	76	70	64	73	68	63	71	66	62	60																												
4	83	71	63	56	81	70	62	56	68	60	55	65	59	54	63	58	53	51																												
5	76	64	55	48	74	63	54	48	61	53	47	59	52	47	57	51	46	44																												
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39																												
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34																												
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30																												
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27																												
10	53	40	32	27	52	39	32	27	38	31	27	38	31	26	37	31	26	25																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14412	14412	14412
5°	14298	14429	14636
10°	14236	14634	15129
15°	14146	14979	15968
20°	13982	15398	17012
25°	13793	15881	18218
30°	13570	16362	19348
35°	13292	16771	19333
40°	12967	17003	18032
45°	12644	16778	16513
50°	12217	15919	15073
55°	11729	14933	13853
60°	11208	13906	12743
65°	10598	12817	11620
70°	9755	11455	10414
75°	8616	9919	8982
80°	7125	7877	7125
85°	4739	5152	4956

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 16909 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.7	3.1
10°-20°	217.3	9.3
20°-30°	352.6	15.1
30°-40°	446.1	19.1
40°-50°	446.8	19.1
50°-60°	374.2	16.0
60°-70°	263.7	11.3
70°-80°	136.0	5.8
80°-90°	30.2	1.3
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°	642.6	27.5
0°-40°	1088.7	46.5
0°-60°	1909.7	81.6
0°-90°	2339.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2339.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	761	761	761	761	761	
5°	752	765	759	763	770	71
15°	721	742	764	794	814	203
25°	660	695	760	834	872	304
35°	575	621	725	819	836	359
45°	472	521	626	631	616	363
55°	355	399	452	433	419	318
65°	236	263	286	268	259	234
75°	118	130	136	126	123	125
85°	22	24	24	24	23	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	760.7	760.7	760.7	760.7	760.7
2.5°	754.8	766.7	758.7	759.7	762.7
5°	751.8	764.7	758.7	762.7	769.6
7.5°	746.9	760.7	758.7	766.7	777.5
10°	740.0	755.8	760.7	774.6	786.4
12.5°	732.0	748.9	761.7	783.5	798.3
15°	721.2	741.9	763.7	794.4	814.1
17.5°	708.3	733.0	763.7	806.2	829.0
20°	693.5	722.1	763.7	816.1	843.8
22.5°	677.6	709.3	762.7	825.0	858.7
25°	659.8	695.4	759.7	833.9	871.5
27.5°	641.0	679.6	754.8	840.9	881.4
30°	620.3	661.8	747.9	843.8	884.4
32.5°	597.5	643.0	738.0	837.9	872.5
35°	574.7	621.2	725.1	819.1	835.9
37.5°	550.0	598.5	708.3	782.5	782.5
40°	524.3	573.8	687.5	732.0	729.1
42.5°	498.6	548.0	660.8	682.6	672.7
45°	471.9	521.3	626.2	631.1	616.3
47.5°	443.2	491.7	585.6	578.7	561.9
50°	414.5	462.0	540.1	528.3	511.4
52.5°	385.8	431.3	496.6	479.8	464.9
55°	355.1	398.7	452.1	433.3	419.4
57.5°	325.5	366.0	409.5	388.8	376.9
60°	295.8	332.4	367.0	347.2	336.3
62.5°	266.1	297.8	326.4	306.7	296.8
65°	236.4	263.1	285.9	268.1	259.2
67.5°	205.8	229.5	245.3	229.5	223.6
70°	176.1	194.9	206.8	192.9	188.0
72.5°	146.4	162.2	170.1	159.3	154.3
75°	117.7	129.6	135.5	125.6	122.7
77.5°	90.0	98.9	101.9	95.0	91.0
80°	65.3	70.2	72.2	67.3	65.3
82.5°	40.6	44.5	46.5	42.5	41.5
85°	21.8	23.7	23.7	23.7	22.8
87.5°	7.9	9.9	9.9	9.9	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	20.75	22.37	21.12	22.68	23.00	21.27	22.88	21.63	23.19	23.51
	3H	22.33	23.78	22.70	24.11	24.47	22.74	24.19	23.11	24.52	24.88
	4H	22.86	24.23	23.26	24.58	24.95	23.23	24.60	23.63	24.94	25.32
	6H	23.21	24.47	23.62	24.83	25.23	23.53	24.79	23.94	25.16	25.55
	8H	23.29	24.49	23.71	24.88	25.28	23.60	24.81	24.03	25.20	25.60
	12H	23.32	24.48	23.75	24.86	25.29	23.64	24.79	24.07	25.17	25.60
4H	2H	21.51	22.88	21.91	23.22	23.60	21.91	23.27	22.31	23.62	24.00
	3H	23.28	24.42	23.69	24.82	25.22	23.57	24.71	23.98	25.11	25.51
	4H	23.93	24.96	24.36	25.37	25.81	24.17	25.20	24.60	25.61	26.05
	6H	24.37	25.27	24.83	25.71	26.16	24.56	25.46	25.02	25.90	26.36
	8H	24.48	25.32	24.94	25.76	26.23	24.66	25.50	25.13	25.94	26.41
	12H	24.54	25.29	25.02	25.77	26.24	24.72	25.47	25.20	25.95	26.42
8H	4H	24.21	25.05	24.67	25.49	25.96	24.43	25.26	24.89	25.71	26.17
	6H	24.75	25.44	25.24	25.93	26.41	24.91	25.60	25.40	26.09	26.57
	8H	24.91	25.53	25.42	26.04	26.52	25.05	25.68	25.56	26.18	26.67
	12H	25.01	25.56	25.52	26.05	26.62	25.15	25.70	25.66	26.20	26.76
12H	4H	24.23	24.98	24.71	25.45	25.92	24.44	25.19	24.92	25.67	26.14
	6H	24.78	25.40	25.29	25.91	26.39	24.94	25.56	25.45	26.07	26.55
	8H	24.98	25.53	25.49	26.02	26.59	25.12	25.68	25.63	26.17	26.73