

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: P1439833

Luminaire Tested: S123DR-S675D835-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439833
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G3-2603-719-3)
Test Lab: INNOVATION CENTER
Issue Date: 4/2/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DR-S675D835-X4F0-XX-UDD-FLB-W
Description: DEFINE 3, DIRECT RECESSED WITH BATWING FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

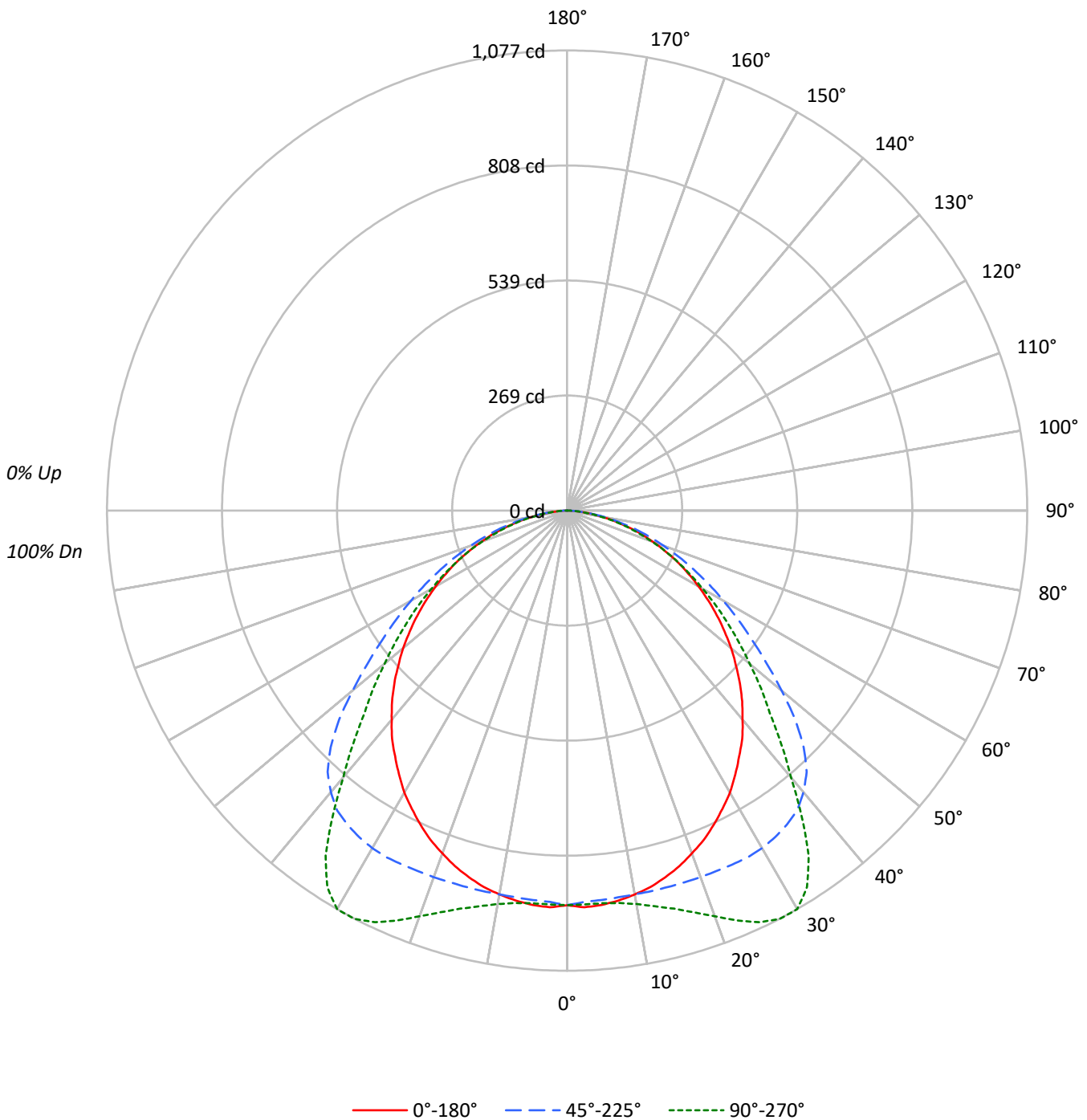
Lumens per Lamp: N/A
Luminaire Lumens: 2793.3 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.52 / 1.52
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	100	97	106	102	99	95	98	95	92	94	92	89	91	89	87	85
2	100	92	85	79	97	90	84	78	86	81	77	83	79	75	80	76	73	71
3	91	81	73	66	88	79	72	66	76	70	65	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	49	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	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°	11134	11134	11134
5°	11212	11073	11166
10°	11166	11166	11447
15°	11086	11385	12040
20°	10954	11714	12964
25°	10799	12159	14141
30°	10610	12698	14998
35°	10332	13199	14506
40°	10055	13543	12836
45°	9754	13352	11431
50°	9404	12289	10460
55°	8994	11122	9617
60°	8567	10178	8842
65°	8148	9317	8173
70°	7540	8450	7406
75°	6806	7518	6629
80°	5700	6297	5436
85°	4357	4620	4095

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 13352 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.9	3.1
10°-20°	261.3	9.4
20°-30°	428.2	15.3
30°-40°	541.7	19.4
40°-50°	529.3	18.9
50°-60°	434.8	15.6
60°-70°	306.7	11.0
70°-80°	163.5	5.9
80°-90°	39.8	1.4
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°	777.5	27.8
0°-40°	1319.2	47.2
0°-60°	2283.3	81.7
0°-90°	2793.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2793.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	924	924	924	924	924	
5°	926	923	915	924	923	88
15°	888	893	912	953	965	250
25°	812	836	914	1025	1063	374
35°	702	751	897	1001	986	440
45°	572	637	783	707	670	441
55°	428	492	529	476	458	383
65°	286	327	327	298	286	282
75°	146	164	161	146	142	155
85°	32	34	33	31	30	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	923.5	923.5	923.5	923.5	923.5
2.5°	929.3	926.4	916.8	925.4	922.6
5°	926.4	922.6	914.9	924.5	922.6
7.5°	920.7	918.7	913.0	927.3	926.4
10°	912.1	911.1	912.1	933.1	935.0
12.5°	902.5	903.5	912.1	941.7	948.4
15°	888.2	893.0	912.1	953.1	964.6
17.5°	872.9	880.5	912.1	968.4	985.6
20°	853.8	867.2	913.0	984.6	1010.4
22.5°	834.7	850.9	913.0	1006.6	1038.1
25°	811.8	835.7	914.0	1024.8	1063.0
27.5°	787.0	815.6	914.9	1039.1	1077.3
30°	762.1	796.5	912.1	1044.8	1077.3
32.5°	732.5	774.5	906.3	1035.3	1044.8
35°	702.0	750.7	896.8	1000.9	985.6
37.5°	673.3	724.9	884.4	937.8	901.6
40°	638.9	697.2	860.5	857.6	815.6
42.5°	606.4	667.6	829.9	776.4	742.1
45°	572.1	637.0	783.1	706.7	670.4
47.5°	535.8	603.6	723.9	640.8	615.0
50°	501.4	569.2	655.2	580.7	557.7
52.5°	464.1	532.9	589.3	527.2	507.1
55°	427.9	491.8	529.1	475.6	457.5
57.5°	391.6	451.7	473.7	426.9	412.6
60°	355.3	409.7	422.1	382.0	366.7
62.5°	319.9	370.6	374.4	339.0	325.7
65°	285.6	326.6	326.6	298.0	286.5
67.5°	249.3	284.6	282.7	256.0	249.3
70°	213.9	243.5	239.7	217.7	210.1
72.5°	180.5	202.5	199.6	182.4	173.8
75°	146.1	164.3	161.4	146.1	142.3
77.5°	113.6	126.1	123.2	112.7	109.8
80°	82.1	91.7	90.7	83.1	78.3
82.5°	55.4	60.2	59.2	54.4	51.6
85°	31.5	34.4	33.4	30.6	29.6
87.5°	12.4	14.3	15.3	14.3	13.4
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	20.01	21.62	20.38	21.93	22.24	19.74	21.34	20.10	21.66	21.97
	3H	21.58	23.03	21.96	23.35	23.71	21.25	22.70	21.63	23.03	23.39
	4H	22.13	23.49	22.53	23.84	24.22	21.79	23.15	22.19	23.50	23.87
	6H	22.50	23.76	22.91	24.12	24.51	22.15	23.41	22.56	23.77	24.16
	8H	22.60	23.80	23.02	24.19	24.59	22.24	23.44	22.67	23.83	24.23
	12H	22.65	23.80	23.08	24.18	24.61	22.29	23.44	22.72	23.82	24.25
4H	2H	20.65	22.01	21.05	22.36	22.73	20.44	21.80	20.84	22.14	22.52
	3H	22.46	23.59	22.87	23.99	24.39	22.15	23.29	22.56	23.69	24.09
	4H	23.15	24.17	23.58	24.58	25.02	22.79	23.81	23.22	24.23	24.66
	6H	23.63	24.52	24.08	24.96	25.42	23.25	24.14	23.70	24.58	25.04
	8H	23.76	24.59	24.22	25.04	25.50	23.38	24.21	23.84	24.65	25.12
	12H	23.85	24.59	24.33	25.07	25.54	23.46	24.20	23.94	24.68	25.15
8H	4H	23.41	24.25	23.87	24.69	25.15	23.10	23.93	23.56	24.37	24.84
	6H	24.00	24.69	24.50	25.18	25.66	23.66	24.35	24.15	24.84	25.31
	8H	24.20	24.82	24.71	25.32	25.81	23.84	24.46	24.35	24.97	25.45
	12H	24.34	24.89	24.84	25.38	25.94	23.97	24.52	24.47	25.01	25.57
12H	4H	23.43	24.18	23.91	24.65	25.12	23.12	23.87	23.60	24.35	24.82
	6H	24.03	24.66	24.54	25.16	25.65	23.70	24.32	24.21	24.83	25.32
	8H	24.28	24.83	24.78	25.32	25.88	23.93	24.48	24.44	24.97	25.53