

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: P1055228

Luminaire Tested: S122R3DR-S675D835-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055228
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-3)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122R3DR-S675D835-X4F0-XX-UDD-F-S
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

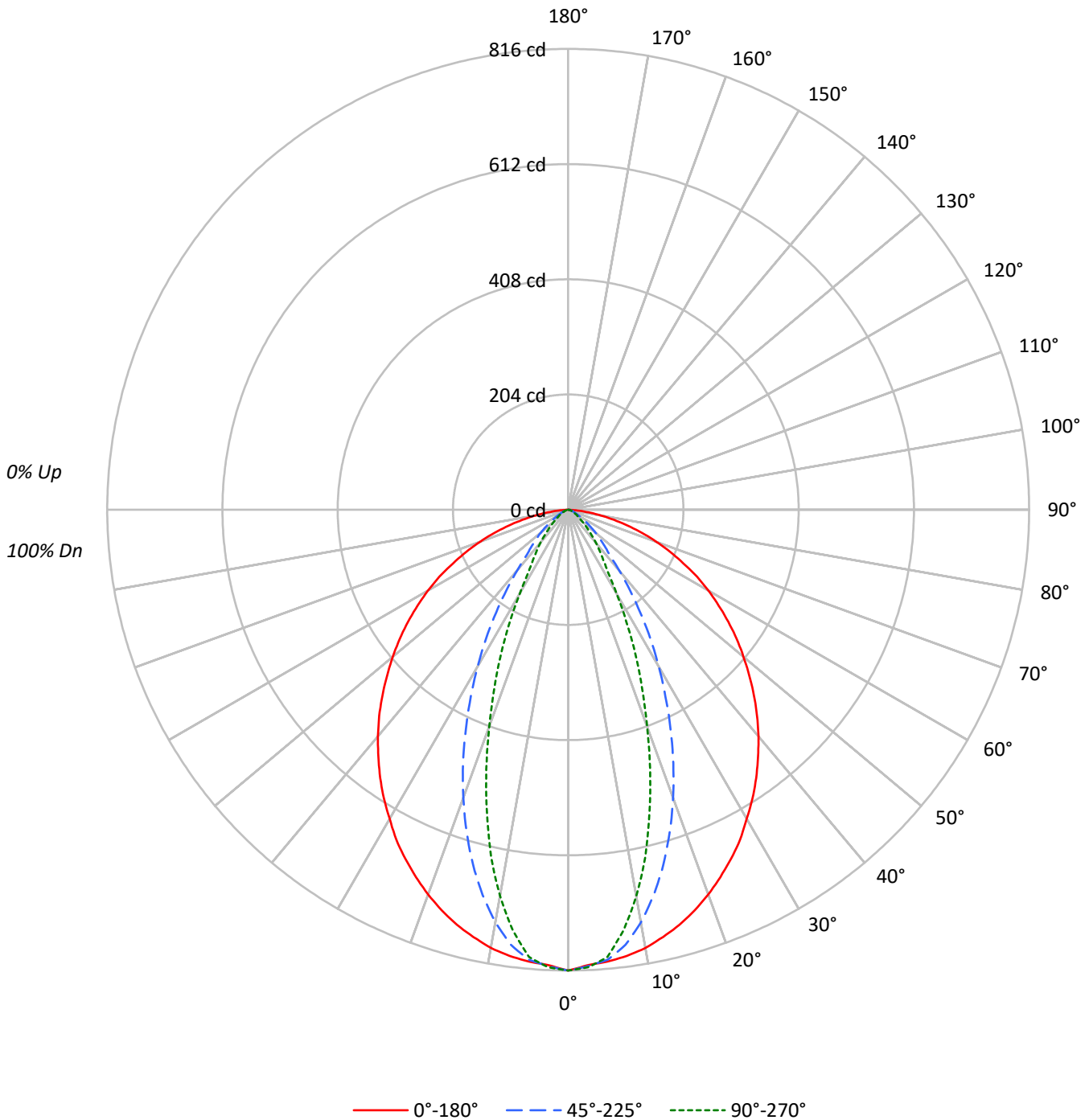
Lumens per Lamp: N/A
Luminaire Lumens: 935.2 lumens
Efficiency: N/A
Efficacy: 35.4 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (A_{in}): 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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	47	45
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15460	15460	15460
5°	15272	15215	15119
10°	15160	14275	13370
15°	14926	12769	10905
20°	14617	10948	8226
25°	14257	8968	5874
30°	13826	7001	3741
35°	13415	5135	2498
40°	12960	3462	1880
45°	12459	2438	1340
50°	11937	1857	943
55°	11429	1288	694
60°	10875	872	568
65°	10087	628	448
70°	9195	499	388
75°	7979	439	293
80°	6328	327	327
85°	3478	435	217

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12459 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.6	8.0
10°-20°	183.1	19.6
20°-30°	209.2	22.4
30°-40°	177.4	19.0
40°-50°	132.4	14.2
50°-60°	85.5	9.1
60°-70°	47.7	5.1
70°-80°	20.9	2.2
80°-90°	4.3	0.5
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°	466.9	49.9
0°-40°	644.3	68.9
0°-60°	862.2	92.2
0°-90°	935.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	935.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	816	816	816	816	816	
5°	803	813	800	792	795	76
15°	761	742	651	582	556	214
25°	682	602	429	314	281	314
35°	580	437	222	121	108	363
45°	465	276	91	59	50	359
55°	346	131	39	24	21	309
65°	225	48	14	11	10	224
75°	109	10	6	5	4	116
85°	16	1	2	1	1	23
90°	0	0	0	0	0	



TEST NUMBER: P105228

CATALOG NUMBER: S122R3DR-S675D835-X4F0-XX-UDD-F-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	816	816	816	816	816
2.5°	807	819	809	809	811
5°	803	813	800	792	795
7.5°	797	804	777	753	751
10°	788	791	742	705	695
12.5°	775	768	699	647	630
15°	761	742	651	582	556
17.5°	744	710	598	514	482
20°	725	677	543	443	408
22.5°	704	640	486	376	341
25°	682	602	429	314	281
27.5°	659	562	373	258	222
30°	632	521	320	204	171
32.5°	607	478	271	158	130
35°	580	437	222	121	108
37.5°	552	396	179	102	91
40°	524	355	140	86	76
42.5°	495	315	108	72	62
45°	465	276	91	59	50
47.5°	435	237	76	47	40
50°	405	200	63	37	32
52.5°	376	165	50	30	26
55°	346	131	39	24	21
57.5°	316	102	30	20	18
60°	287	77	23	16	15
62.5°	257	62	18	13	12
65°	225	48	14	11	10
67.5°	196	35	11	9	8
70°	166	24	9	8	7
72.5°	137	15	7	6	6
75°	109	10	6	5	4
77.5°	83	6	4	4	3
80°	58	4	3	3	3
82.5°	36	3	2	2	2
85°	16	1	2	1	1
87.5°	3	1	1	1	1
90°	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	17.77	19.08	18.13	19.40	19.71	4.08	5.39	4.44	5.71	6.02
	3H	20.23	21.41	20.61	21.74	22.10	4.93	6.10	5.30	6.43	6.79
	4H	21.19	22.28	21.59	22.63	23.02	5.20	6.29	5.60	6.64	7.03
	6H	21.88	22.88	22.29	23.25	23.65	5.39	6.39	5.81	6.76	7.16
	8H	22.07	23.02	22.50	23.41	23.82	5.47	6.42	5.90	6.81	7.21
	12H	22.16	23.06	22.59	23.45	23.88	5.49	6.40	5.92	6.78	7.21
4H	2H	17.55	18.64	17.95	18.99	19.38	4.65	5.74	5.05	6.09	6.47
	3H	20.03	20.93	20.45	21.33	21.74	5.68	6.57	6.09	6.98	7.38
	4H	20.98	21.78	21.41	22.20	22.64	6.05	6.85	6.48	7.27	7.71
	6H	21.73	22.42	22.20	22.87	23.34	6.34	7.03	6.80	7.48	7.94
	8H	21.98	22.62	22.44	23.07	23.54	6.44	7.08	6.91	7.53	8.00
	12H	22.10	22.67	22.59	23.16	23.63	6.48	7.05	6.97	7.53	8.01
8H	4H	20.85	21.49	21.31	21.94	22.41	6.42	7.06	6.89	7.51	7.98
	6H	21.58	22.11	22.09	22.61	23.09	6.78	7.30	7.28	7.80	8.28
	8H	21.83	22.30	22.35	22.81	23.31	6.92	7.39	7.44	7.90	8.40
	12H	21.98	22.39	22.49	22.89	23.46	7.00	7.42	7.52	7.91	8.48
12H	4H	20.80	21.37	21.29	21.85	22.33	6.54	7.11	7.03	7.59	8.07
	6H	21.52	21.99	22.05	22.51	23.00	6.90	7.37	7.42	7.88	8.38
	8H	21.79	22.20	22.30	22.70	23.27	7.08	7.49	7.59	7.99	8.56