

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: P1056470

Luminaire Tested: S125R3DR-S850D835-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056470
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-S850D835-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

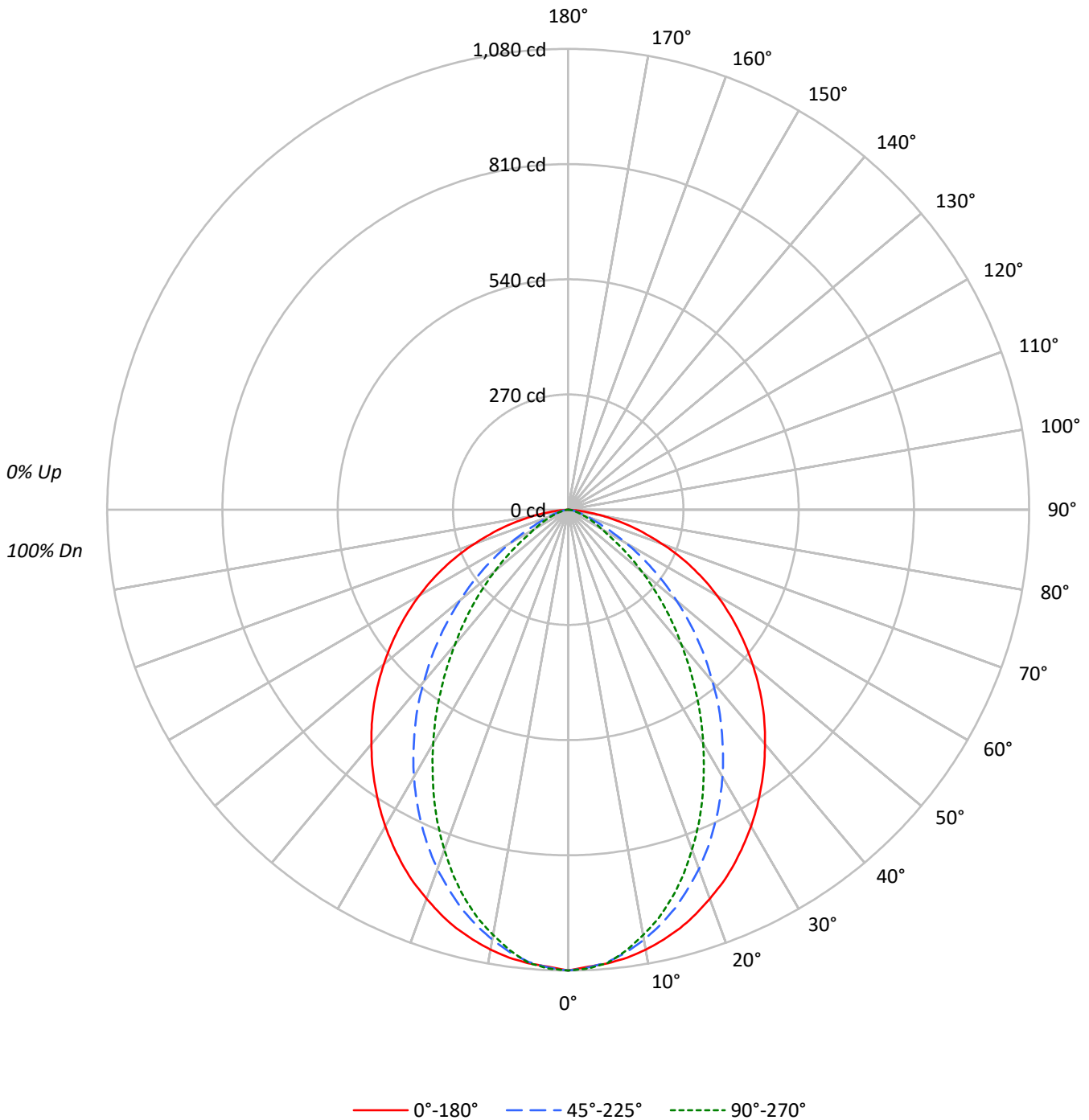
Lumens per Lamp: N/A
Luminaire Lumens: 1952.0 lumens
Efficiency: N/A
Efficacy: 73.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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	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												100																
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88												88																
2	102	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77												77																
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67												67																
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59												59																
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52												52																
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47												47																
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44	42												42																
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38												38																
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36	35												35																
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32												32																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7635	7635	7635
5°	7572	7551	7565
10°	7516	7343	7265
15°	7428	7077	6887
20°	7297	6741	6380
25°	7161	6342	5803
30°	6996	5902	5167
35°	6809	5402	4496
40°	6617	4854	3802
45°	6428	4279	3149
50°	6203	3640	2475
55°	5965	2958	1799
60°	5698	2206	1287
65°	5353	1455	1004
70°	4837	1013	703
75°	4206	656	546
80°	3298	489	448
85°	1703	406	324

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6428 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.6	5.2
10°-20°	273.5	14.0
20°-30°	378.2	19.4
30°-40°	400.7	20.5
40°-50°	349.7	17.9
50°-60°	248.7	12.7
60°-70°	138.3	7.1
70°-80°	53.2	2.7
80°-90°	9.2	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°	752.2	38.5
0°-40°	1152.9	59.1
0°-60°	1751.3	89.7
0°-90°	1952.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1952.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1080	1080	1080	1080	1080	
5°	1067	1075	1064	1061	1066	101
15°	1015	1006	967	946	941	286
25°	918	887	813	763	744	423
35°	789	735	626	550	521	494
45°	643	566	428	342	315	496
55°	484	388	240	166	146	433
65°	320	210	87	64	60	316
75°	154	60	24	20	20	163
85°	21	6	5	4	4	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1080	1080	1080	1080	1080
2.5°	1072	1083	1074	1075	1076
5°	1067	1075	1064	1061	1066
7.5°	1059	1065	1046	1039	1042
10°	1047	1049	1023	1013	1012
12.5°	1032	1029	997	981	980
15°	1015	1006	967	946	941
17.5°	994	980	932	905	897
20°	970	951	896	861	848
22.5°	946	920	856	812	798
25°	918	887	813	763	744
27.5°	888	851	769	711	688
30°	857	814	723	658	633
32.5°	824	775	675	604	578
35°	789	735	626	550	521
37.5°	754	694	578	497	467
40°	717	652	526	443	412
42.5°	681	609	477	392	364
45°	643	566	428	342	315
47.5°	604	521	379	295	268
50°	564	477	331	249	225
52.5°	524	433	286	205	184
55°	484	388	240	166	146
57.5°	444	344	197	130	112
60°	403	299	156	96	91
62.5°	362	255	121	79	75
65°	320	210	87	64	60
67.5°	278	169	63	49	46
70°	234	129	49	37	34
72.5°	192	93	35	27	26
75°	154	60	24	20	20
77.5°	116	36	17	15	15
80°	81	21	12	11	11
82.5°	49	11	8	7	7
85°	21	6	5	4	4
87.5°	4	2	2	2	2
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	18.22	19.67	18.59	19.98	20.30	10.86	12.31	11.23	12.62	12.93
	3H	19.78	21.07	20.16	21.40	21.76	11.43	12.71	11.80	13.04	13.40
	4H	20.30	21.51	20.71	21.86	22.24	11.55	12.75	11.95	13.10	13.48
	6H	20.64	21.75	21.06	22.12	22.51	11.61	12.72	12.03	13.09	13.48
	8H	20.72	21.78	21.15	22.17	22.57	11.62	12.67	12.05	13.06	13.46
	12H	20.75	21.75	21.18	22.14	22.57	11.61	12.62	12.04	13.00	13.43
4H	2H	18.12	19.32	18.52	19.67	20.05	11.43	12.63	11.83	12.98	13.36
	3H	19.79	20.77	20.20	21.18	21.58	12.10	13.09	12.51	13.49	13.89
	4H	20.34	21.22	20.77	21.64	22.08	12.26	13.14	12.69	13.56	14.00
	6H	20.73	21.49	21.19	21.94	22.40	12.37	13.13	12.83	13.58	14.04
	8H	20.83	21.55	21.30	21.99	22.46	12.38	13.09	12.85	13.54	14.01
	12H	20.88	21.51	21.36	21.99	22.47	12.38	13.02	12.87	13.50	13.97
8H	4H	20.24	20.95	20.71	21.40	21.87	12.53	13.24	12.99	13.68	14.15
	6H	20.63	21.21	21.13	21.70	22.18	12.66	13.24	13.16	13.74	14.22
	8H	20.73	21.26	21.25	21.77	22.26	12.69	13.21	13.21	13.73	14.22
	12H	20.80	21.26	21.31	21.75	22.32	12.71	13.17	13.22	13.67	14.23
12H	4H	20.20	20.84	20.69	21.32	21.79	12.54	13.17	13.03	13.66	14.13
	6H	20.57	21.10	21.09	21.61	22.10	12.67	13.20	13.19	13.71	14.20
	8H	20.70	21.17	21.21	21.66	22.23	12.73	13.19	13.24	13.69	14.26