

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: P1055261

Luminaire Tested: S122R3DRP-S865D850-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055261
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: S122R3DRP-S865D850-X4F0-XX-UDD-F-S
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

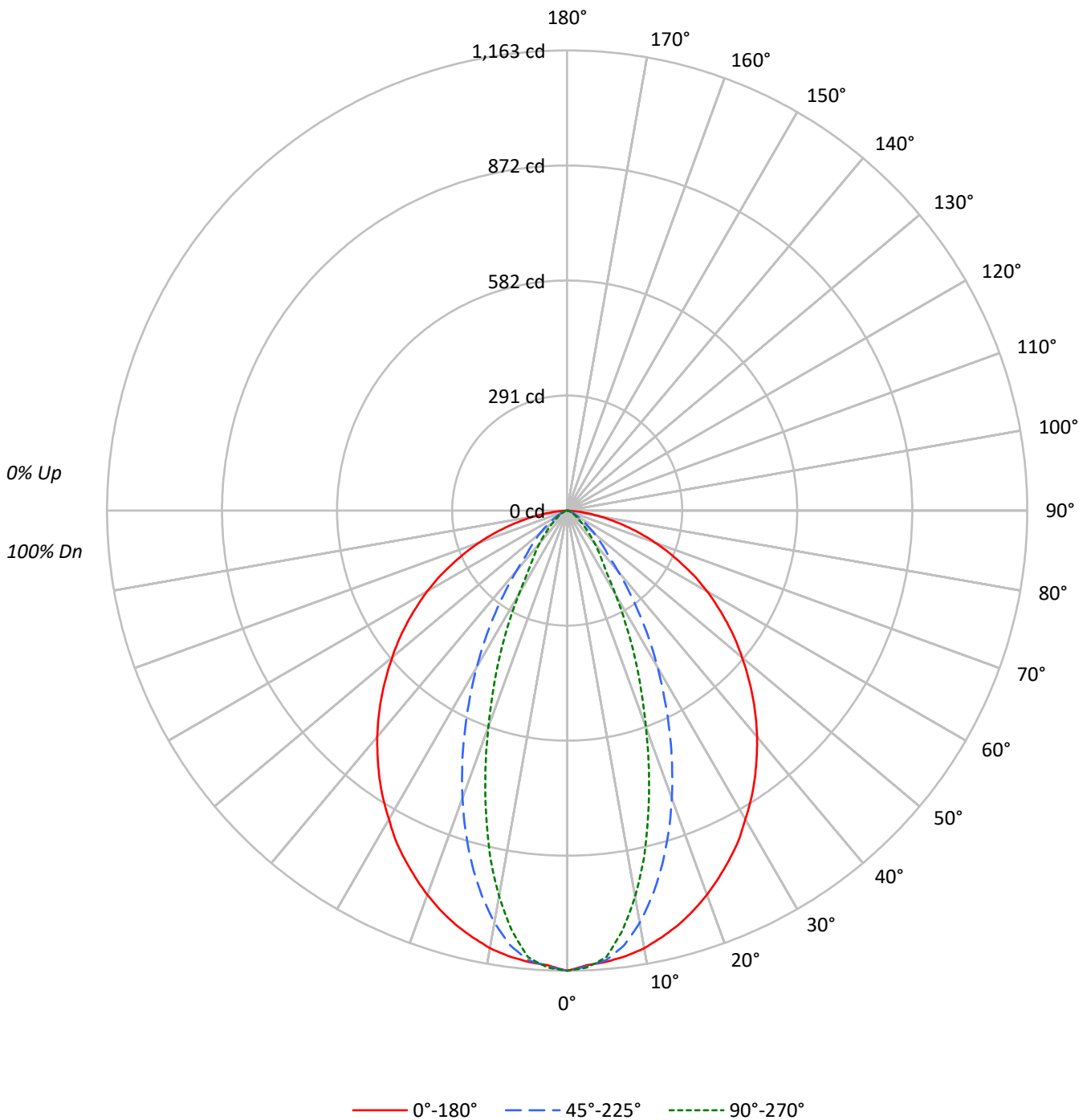
Lumens per Lamp: N/A
Luminaire Lumens: 1332.8 lumens
Efficiency: N/A
Efficacy: 38.4 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90				90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71				71
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64				64
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58				58
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53				53
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49				49
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	47	45				45
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42				42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39				39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22032	22032	22032
5°	21764	21683	21548
10°	21604	20344	19055
15°	21272	18198	15542
20°	20831	15601	11724
25°	20317	12781	8372
30°	19704	9976	5331
35°	19118	7318	3559
40°	18470	4934	2678
45°	17756	3475	1910
50°	17013	2647	1344
55°	16288	1837	988
60°	15498	1243	811
65°	14377	897	641
70°	13106	709	554
75°	11368	630	417
80°	9023	469	469
85°	4956	630	304

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17756 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.3	8.0
10°-20°	261.0	19.6
20°-30°	298.1	22.4
30°-40°	252.8	19.0
40°-50°	188.6	14.2
50°-60°	121.9	9.1
60°-70°	68.0	5.1
70°-80°	29.9	2.2
80°-90°	6.2	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°	665.4	49.9
0°-40°	918.2	68.9
0°-60°	1228.8	92.2
0°-90°	1332.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1332.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1163	1163	1163	1163	1163	
5°	1144	1159	1140	1129	1133	109
15°	1084	1058	928	829	792	305
25°	972	858	611	448	400	447
35°	827	623	316	172	154	517
45°	663	393	130	84	71	511
55°	493	187	56	34	30	441
65°	321	68	20	16	14	319
75°	155	14	9	7	6	166
85°	23	1	3	1	1	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1162.9	1162.9	1162.9	1162.9	1162.9
2.5°	1150.1	1167.2	1152.9	1152.9	1155.8
5°	1144.4	1158.6	1140.1	1128.7	1133.0
7.5°	1135.8	1145.8	1107.3	1073.1	1070.3
10°	1123.0	1127.3	1057.5	1004.7	990.5
12.5°	1104.5	1094.5	996.2	922.1	897.8
15°	1084.5	1057.5	927.8	829.4	792.4
17.5°	1060.3	1011.8	852.2	732.5	686.9
20°	1033.2	964.8	773.8	631.3	581.5
22.5°	1003.3	912.1	692.6	535.9	486.0
25°	971.9	857.9	611.4	447.5	400.5
27.5°	939.2	800.9	531.6	367.7	316.4
30°	900.7	742.5	456.0	290.7	243.7
32.5°	865.1	681.2	386.2	225.2	185.3
35°	826.6	622.8	316.4	172.4	153.9
37.5°	786.7	564.4	255.1	145.4	129.7
40°	746.8	505.9	199.5	122.6	108.3
42.5°	705.4	448.9	153.9	102.6	88.4
45°	662.7	393.3	129.7	84.1	71.3
47.5°	619.9	337.8	108.3	67.0	57.0
50°	577.2	285.0	89.8	52.7	45.6
52.5°	535.9	235.1	71.3	42.8	37.1
55°	493.1	186.7	55.6	34.2	29.9
57.5°	450.3	145.4	42.8	28.5	25.7
60°	409.0	109.7	32.8	22.8	21.4
62.5°	366.3	88.4	25.7	18.5	17.1
65°	320.7	68.4	20.0	15.7	14.3
67.5°	279.3	49.9	15.7	12.8	11.4
70°	236.6	34.2	12.8	11.4	10.0
72.5°	195.2	21.4	10.0	8.6	8.6
75°	155.3	14.3	8.6	7.1	5.7
77.5°	118.3	8.6	5.7	5.7	4.3
80°	82.7	5.7	4.3	4.3	4.3
82.5°	51.3	4.3	2.9	2.9	2.9
85°	22.8	1.4	2.9	1.4	1.4
87.5°	4.3	1.4	1.4	1.4	1.4
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	19.00	20.32	19.36	20.63	20.94	5.31	6.63	5.67	6.94	7.25
	3H	21.47	22.64	21.85	22.97	23.33	6.16	7.33	6.54	7.66	8.02
	4H	22.42	23.51	22.82	23.86	24.25	6.43	7.52	6.83	7.87	8.26
	6H	23.11	24.11	23.52	24.48	24.88	6.63	7.63	7.04	8.00	8.39
	8H	23.30	24.26	23.73	24.65	25.05	6.70	7.65	7.13	8.04	8.45
	12H	23.39	24.30	23.82	24.68	25.11	6.73	7.64	7.16	8.02	8.45
4H	2H	18.78	19.87	19.18	20.22	20.61	5.88	6.97	6.29	7.33	7.71
	3H	21.27	22.16	21.68	22.56	22.97	6.91	7.81	7.33	8.21	8.62
	4H	22.21	23.01	22.64	23.43	23.87	7.28	8.08	7.71	8.50	8.94
	6H	22.96	23.65	23.43	24.10	24.57	7.58	8.27	8.04	8.71	9.18
	8H	23.21	23.85	23.68	24.30	24.77	7.68	8.32	8.15	8.77	9.24
	12H	23.34	23.90	23.82	24.39	24.86	7.72	8.29	8.21	8.77	9.25
8H	4H	22.08	22.72	22.55	23.17	23.64	7.65	8.30	8.12	8.74	9.22
	6H	22.82	23.34	23.32	23.84	24.32	8.02	8.54	8.52	9.04	9.52
	8H	23.06	23.53	23.58	24.05	24.54	8.16	8.63	8.68	9.15	9.64
	12H	23.21	23.62	23.73	24.12	24.69	8.24	8.66	8.76	9.15	9.72
12H	4H	22.03	22.60	22.52	23.08	23.56	7.77	8.34	8.26	8.83	9.30
	6H	22.75	23.23	23.28	23.74	24.23	8.14	8.61	8.66	9.12	9.62
	8H	23.02	23.43	23.53	23.93	24.50	8.32	8.74	8.84	9.23	9.80