

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1004664

Luminaire Tested: S125DR-B850DB40-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1004664
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-17)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DR-B850DB40-4F0-XX-W2A-D
Description: Define 5 Direct Recessed with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

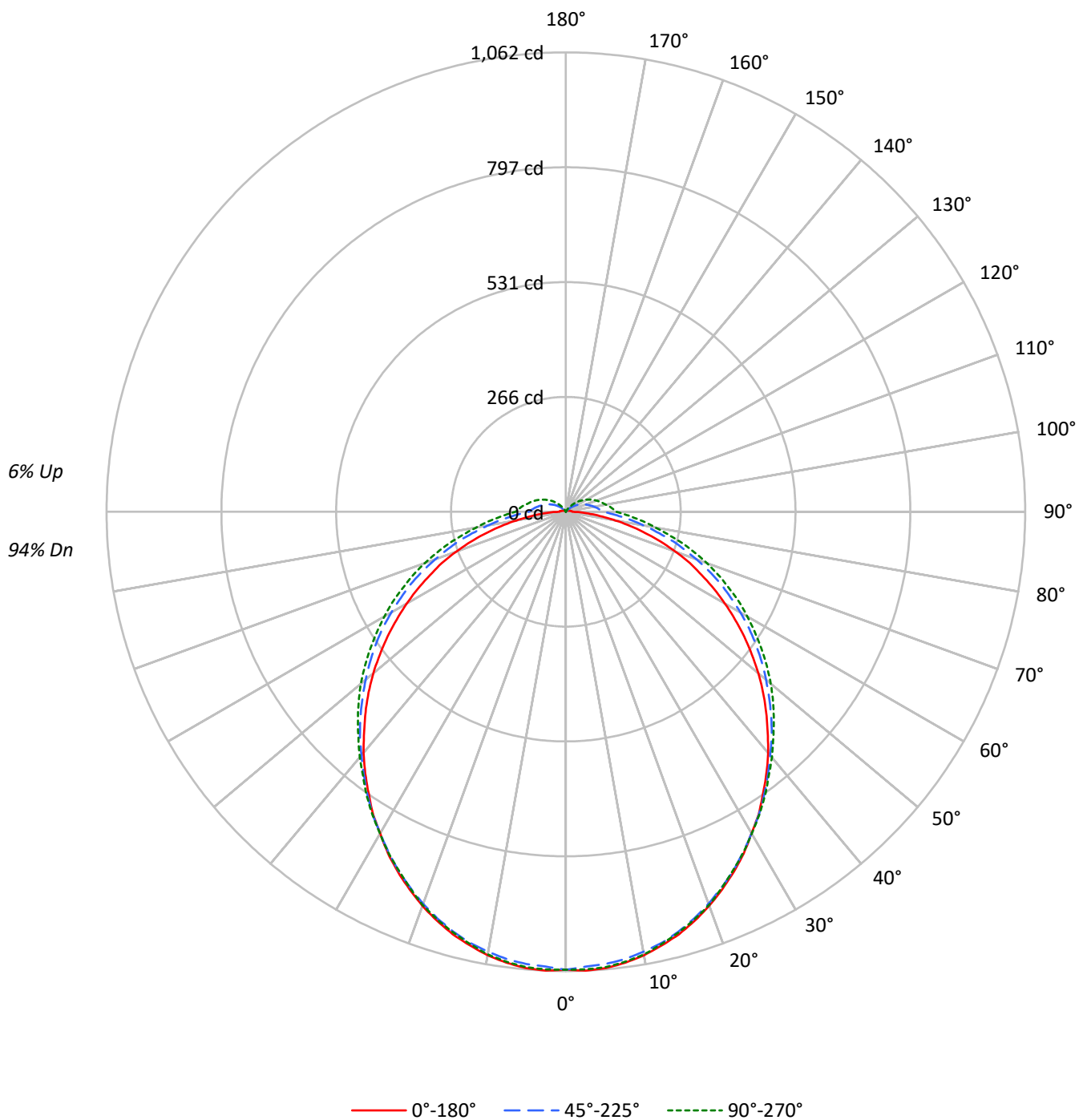
Lumens per Lamp: N/A
Luminaire Lumens: 3280.0 lumens
Efficiency: N/A
Efficacy: 91.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35.9
Input Voltage (V):
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96
1	106	101	96	92	103	98	94	90	93	89	86	88	85	82	83	81	79
2	96	88	80	74	93	85	78	73	81	75	70	76	72	68	72	69	65
3	88	77	68	61	84	75	67	60	71	64	59	67	61	57	64	59	55
4	80	68	59	52	77	66	58	51	63	55	50	60	53	48	57	51	47
5	74	60	51	44	71	59	50	44	56	49	43	53	47	42	51	45	41
6	68	54	45	39	66	53	45	38	51	43	38	48	42	37	46	40	36
7	63	49	40	34	61	48	40	34	46	39	33	44	37	33	42	36	32
8	59	45	36	30	57	44	36	30	42	35	30	40	34	29	39	33	29
9	55	41	33	27	53	40	33	27	39	32	27	37	31	26	36	30	26
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6784	6784	6784
5°	6810	6750	6796
10°	6774	6720	6760
15°	6707	6665	6679
20°	6610	6575	6597
25°	6495	6473	6465
30°	6351	6351	6359
35°	6219	6252	6276
40°	6086	6147	6199
45°	5935	6085	6161
50°	5794	6021	6167
55°	5624	5995	6168
60°	5441	5973	6212
65°	5256	5996	6295
70°	5056	6010	6495
75°	4728	6218	6862
80°	4328	6778	7774
85°	4198	9388	11674

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 19977 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.2	3.1
10°-20°	284.4	8.7
20°-30°	422.9	12.9
30°-40°	500.9	15.3
40°-50°	517.8	15.8
50°-60°	477.0	14.5
60°-70°	385.6	11.8
70°-80°	258.0	7.9
80°-90°	133.4	4.1
90°-100°	75.1	2.3
100°-110°	55.4	1.7
110°-120°	37.1	1.1
120°-130°	21.0	0.6
130°-140°	9.2	0.3
140°-150°	1.8	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	807.6	24.6
0°-40°	1308.5	39.9
0°-60°	2303.4	70.2
0°-90°	3080.4	93.9
90°-120°	167.6	5.1
90°-150°	199.6	6.1
90°-180°	200.0	6.1
0°-180°	3280.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1059	1059	1059	1059	1059	
5°	1059	1057	1050	1058	1057	100
15°	1011	1012	1005	1011	1007	285
25°	919	922	916	920	914	423
35°	795	802	799	802	802	498
45°	655	666	672	679	680	505
55°	504	520	537	548	552	450
65°	347	371	396	411	415	344
75°	191	218	251	272	277	202
85°	57	91	128	150	159	60
90°	17	50	85	109	116	12
95°	14	40	76	99	106	11
105°	9	26	57	78	85	10
115°	6	14	40	59	65	6
125°	4	3	24	40	46	4
135°	2	1	8	22	27	2
145°	1	0	0	5	9	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1058.8	1058.8	1058.8	1058.8	1058.8
2.5°	1061.9	1059.8	1052.6	1059.8	1058.8
5°	1058.8	1056.7	1049.5	1057.8	1056.7
7.5°	1051.5	1050.5	1043.2	1050.5	1049.5
10°	1041.2	1041.2	1032.9	1040.1	1039.1
12.5°	1026.6	1027.7	1021.4	1026.6	1023.5
15°	1011.1	1012.1	1004.8	1011.1	1006.9
17.5°	991.3	993.4	986.1	991.3	988.2
20°	969.5	971.6	964.3	967.5	967.5
22.5°	944.6	948.8	940.5	944.6	941.5
25°	918.7	921.8	915.6	919.7	914.5
27.5°	890.6	894.8	887.5	890.6	888.6
30°	858.5	864.7	858.5	860.5	859.5
32.5°	829.4	834.6	830.4	832.5	831.5
35°	795.1	802.4	799.3	802.4	802.4
37.5°	761.9	768.2	767.1	771.3	770.2
40°	727.7	736.0	734.9	739.1	741.2
42.5°	690.3	701.7	704.8	710.0	710.0
45°	655.0	666.4	671.6	678.9	679.9
47.5°	618.7	629.1	637.4	647.7	649.8
50°	581.3	592.7	604.1	615.6	618.7
52.5°	541.9	556.4	570.9	583.4	585.5
55°	503.5	520.1	536.7	548.1	552.2
57.5°	464.0	483.7	502.4	514.9	518.0
60°	424.6	445.3	466.1	481.7	484.8
62.5°	386.2	406.9	429.8	447.4	451.6
65°	346.7	370.6	395.5	411.1	415.2
67.5°	310.4	333.2	358.1	376.8	382.0
70°	269.9	293.8	320.8	340.5	346.7
72.5°	230.4	255.4	285.5	307.3	311.4
75°	191.0	218.0	251.2	272.0	277.2
77.5°	152.6	183.7	214.9	237.7	241.9
80°	117.3	148.4	183.7	206.6	210.7
82.5°	85.1	118.3	154.7	176.5	184.8
85°	57.1	91.3	127.7	150.5	158.8
87.5°	36.3	69.5	104.8	128.7	136.0
90°	16.6	49.8	85.1	109.0	116.3
92.5°	14.5	44.6	81.0	103.8	111.1
95°	13.5	40.5	75.8	98.6	105.9
97.5°	12.5	37.4	71.6	93.4	100.7
100°	11.4	33.2	66.4	88.2	94.5
102.5°	10.4	30.1	62.3	83.0	89.3
105°	9.3	26.0	57.1	77.9	85.1
107.5°	8.3	22.8	52.9	73.7	79.9
110°	7.3	19.7	48.8	68.5	75.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	7.3	16.6	44.6	63.3	70.6
115°	6.2	13.5	40.5	59.2	65.4
117.5°	5.2	10.4	36.3	54.0	61.2
120°	5.2	8.3	32.2	49.8	56.1
122.5°	4.2	5.2	28.0	44.6	50.9
125°	4.2	3.1	23.9	40.5	45.7
127.5°	3.1	2.1	19.7	35.3	41.5
130°	3.1	2.1	16.6	31.1	36.3
132.5°	2.1	2.1	12.5	27.0	31.1
135°	2.1	1.0	8.3	21.8	27.0
137.5°	2.1	1.0	5.2	17.6	21.8
140°	1.0	1.0	2.1	13.5	17.6
142.5°	1.0	0.0	0.0	9.3	13.5
145°	1.0	0.0	0.0	5.2	9.3
147.5°	0.0	0.0	0.0	2.1	4.2
150°	0.0	0.0	0.0	0.0	1.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)