

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: P1004658

Luminaire Tested: S125DR-B850DB30-4F0-XX-W2A-D

Issue Date: 5/2/2025

**Test Information**

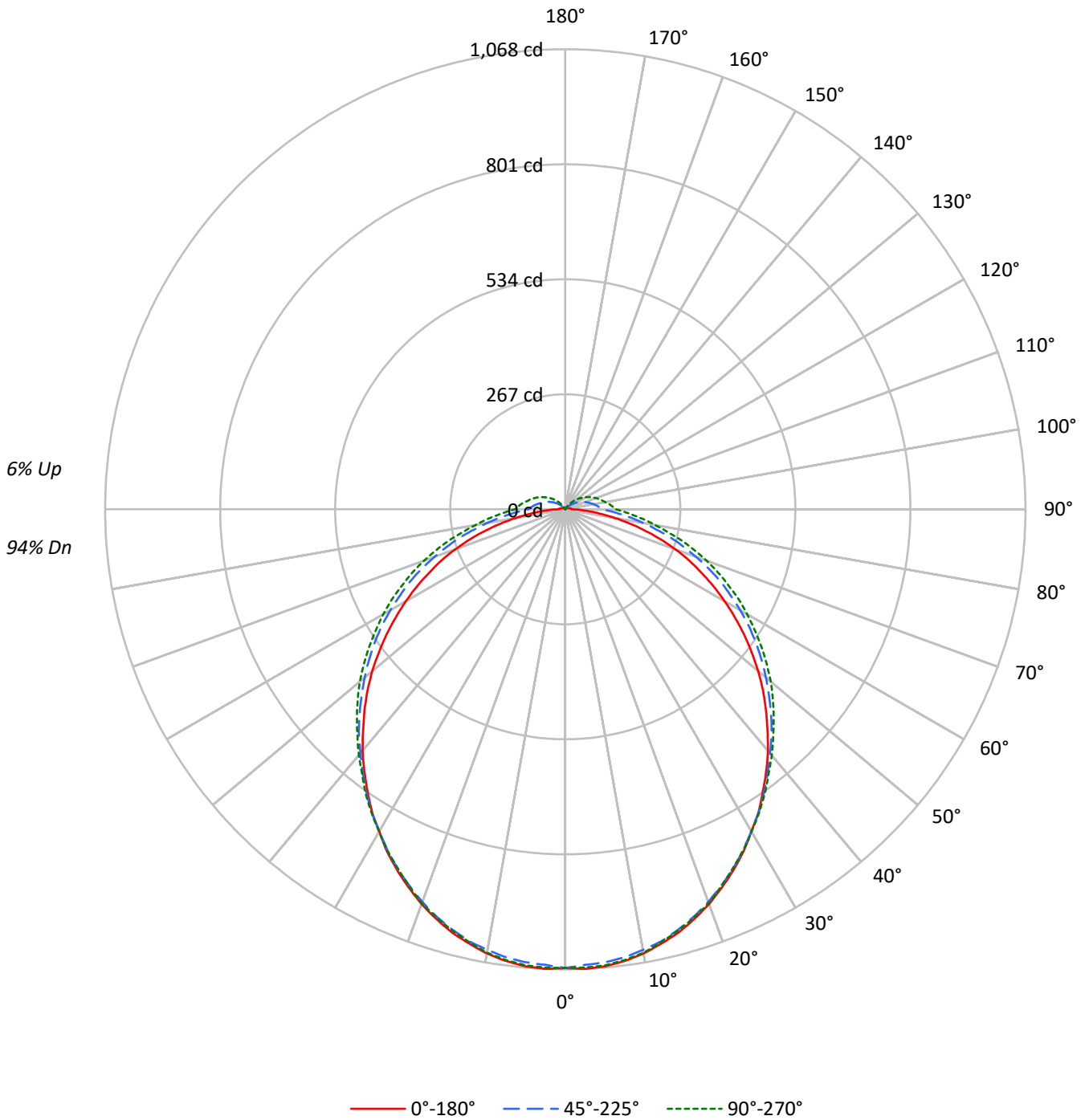
Test Method: LM-79-2019  
Report Number: P1004658  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/2/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125DR-B850DB30-4F0-XX-W2A-D  
Description: Define 5 Direct Recessed with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3299.0 lumens  
Efficiency: N/A  
Efficacy: 91.9 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			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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	96	96	96	94
1	106	101	96	92	103	98	94	90	93	89	86	88	85	82	83	81	79	83	81	79	76
2	96	88	80	74	93	85	78	73	81	75	70	76	72	68	72	69	65	72	69	65	63
3	88	77	68	61	84	75	67	60	71	64	59	67	61	57	64	59	55	64	59	55	53
4	80	68	59	52	77	66	58	51	63	55	50	60	53	48	57	51	47	57	51	47	45
5	74	60	51	44	71	59	50	44	56	49	43	53	47	42	51	45	41	51	45	41	39
6	68	54	45	39	66	53	45	38	51	43	38	48	42	37	46	40	36	46	40	36	34
7	63	49	40	34	61	48	40	34	46	39	33	44	37	33	42	36	32	42	36	32	30
8	59	45	36	30	57	44	36	30	42	35	30	40	34	29	39	33	29	39	33	29	27
9	55	41	33	27	53	40	33	27	39	32	27	37	31	26	36	30	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	23	33	28	23	22

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	6823	6823	6823
5°	6849	6789	6836
10°	6813	6758	6799
15°	6745	6703	6717
20°	6649	6613	6635
25°	6532	6510	6502
30°	6388	6388	6396
35°	6255	6288	6313
40°	6122	6183	6235
45°	5969	6121	6197
50°	5828	6056	6203
55°	5657	6030	6204
60°	5472	6007	6248
65°	5286	6031	6331
70°	5086	6043	6532
75°	4755	6256	6902
80°	4354	6819	7818
85°	4220	9439	11740

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 87.5°  
 Luminance: 20094 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.8	3.1
10°-20°	286.1	8.7
20°-30°	425.4	12.9
30°-40°	503.8	15.3
40°-50°	520.9	15.8
50°-60°	479.8	14.5
60°-70°	387.9	11.8
70°-80°	259.5	7.9
80°-90°	134.2	4.1
90°-100°	75.6	2.3
100°-110°	55.7	1.7
110°-120°	37.3	1.1
120°-130°	21.1	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°	812.3	24.6
0°-40°	1316.1	39.9
0°-60°	2316.7	70.2
0°-90°	3098.3	93.9
90°-120°	168.5	5.1
90°-150°	200.7	6.1
90°-180°	201.0	6.1
0°-180°	3299.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1065	1065	1065	1065	1065	
5°	1065	1063	1056	1064	1063	101
15°	1017	1018	1011	1017	1013	287
25°	924	927	921	925	920	425
35°	800	807	804	807	807	501
45°	659	670	676	683	684	508
55°	506	523	540	551	555	453
65°	349	373	398	413	418	346
75°	192	219	253	274	279	204
85°	57	92	128	151	160	60
90°	17	50	86	110	117	12
95°	14	41	76	99	106	11
105°	9	26	57	78	86	10
115°	6	14	41	60	66	6
125°	4	3	24	41	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°	1064.9	1064.9	1064.9	1064.9	1064.9
2.5°	1068.1	1066.0	1058.7	1066.0	1064.9
5°	1064.9	1062.9	1055.5	1063.9	1062.9
7.5°	1057.6	1056.6	1049.3	1056.6	1055.5
10°	1047.2	1047.2	1038.8	1046.1	1045.1
12.5°	1032.6	1033.6	1027.4	1032.6	1029.4
15°	1016.9	1018.0	1010.6	1016.9	1012.7
17.5°	997.1	999.2	991.9	997.1	993.9
20°	975.2	977.2	969.9	973.1	973.1
22.5°	950.1	954.3	945.9	950.1	947.0
25°	924.0	927.1	920.9	925.0	919.8
27.5°	895.8	900.0	892.7	895.8	893.7
30°	863.4	869.7	863.4	865.5	864.5
32.5°	834.2	839.4	835.2	837.3	836.3
35°	799.7	807.1	803.9	807.1	807.1
37.5°	766.3	772.6	771.6	775.7	774.7
40°	731.9	740.2	739.2	743.4	745.5
42.5°	694.3	705.8	708.9	714.1	714.1
45°	658.8	670.3	675.5	682.8	683.9
47.5°	622.3	632.7	641.1	651.5	653.6
50°	584.7	596.2	607.6	619.1	622.3
52.5°	545.0	559.6	574.2	586.8	588.8
55°	506.4	523.1	539.8	551.3	555.4
57.5°	466.7	486.5	505.3	517.9	521.0
60°	427.0	447.9	468.8	484.4	487.6
62.5°	388.4	409.3	432.2	450.0	454.2
65°	348.7	372.7	397.8	413.4	417.6
67.5°	312.2	335.1	360.2	379.0	384.2
70°	271.5	295.5	322.6	342.5	348.7
72.5°	231.8	256.8	287.1	309.0	313.2
75°	192.1	219.3	252.7	273.5	278.8
77.5°	153.5	184.8	216.1	239.1	243.3
80°	118.0	149.3	184.8	207.8	211.9
82.5°	85.6	119.0	155.6	177.5	185.8
85°	57.4	91.9	128.4	151.4	159.7
87.5°	36.5	70.0	105.5	129.5	136.8
90°	16.7	50.1	85.6	109.6	116.9
92.5°	14.6	44.9	81.4	104.4	111.7
95°	13.6	40.7	76.2	99.2	106.5
97.5°	12.5	37.6	72.0	94.0	101.3
100°	11.5	33.4	66.8	88.7	95.0
102.5°	10.4	30.3	62.6	83.5	89.8
105°	9.4	26.1	57.4	78.3	85.6
107.5°	8.4	23.0	53.2	74.1	80.4
110°	7.3	19.8	49.1	68.9	76.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	7.3	16.7	44.9	63.7	71.0
115°	6.3	13.6	40.7	59.5	65.8
117.5°	5.2	10.4	36.5	54.3	61.6
120°	5.2	8.4	32.4	50.1	56.4
122.5°	4.2	5.2	28.2	44.9	51.2
125°	4.2	3.1	24.0	40.7	45.9
127.5°	3.1	2.1	19.8	35.5	41.8
130°	3.1	2.1	16.7	31.3	36.5
132.5°	2.1	2.1	12.5	27.1	31.3
135°	2.1	1.0	8.4	21.9	27.1
137.5°	2.1	1.0	5.2	17.7	21.9
140°	1.0	1.0	2.1	13.6	17.7
142.5°	1.0	0.0	0.0	9.4	13.6
145°	1.0	0.0	0.0	5.2	9.4
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)