

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: P987428

Luminaire Tested: S122DR-B1005DB2750-4F0-XX-W2A-D_3500K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P987428
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-14)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122DR-B1005DB2750-4F0-XX-W2A-D_3500K
Description: Define 2 Direct Recessed with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

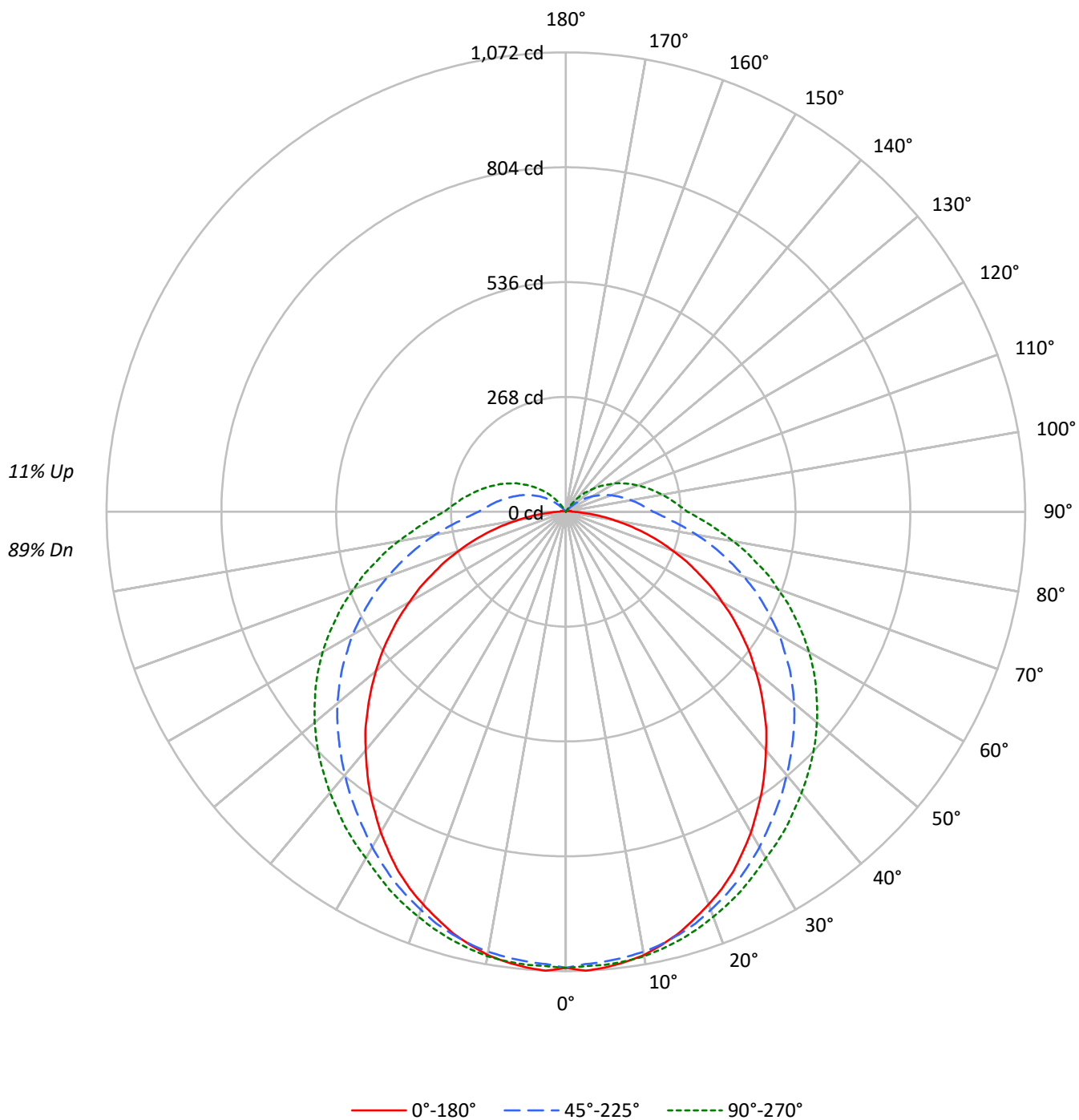
Lumens per Lamp: N/A
Luminaire Lumens: 4061.0 lumens
Efficiency: N/A
Efficacy: 66.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 61.3
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	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92
1	104	98	93	88	100	95	90	86	88	85	81	82	79	77	77	75	72
2	94	84	77	70	90	81	74	68	76	70	65	71	66	62	66	62	59
3	85	73	64	57	81	71	63	56	66	59	54	62	56	51	58	53	49
4	77	64	55	48	74	62	54	47	58	51	45	55	48	43	51	46	42
5	71	57	48	41	68	56	47	40	52	44	39	49	42	37	46	40	36
6	65	51	42	35	63	50	41	35	47	39	34	44	37	32	42	36	31
7	60	46	37	31	58	45	37	31	43	35	30	40	34	29	38	32	28
8	56	42	34	28	54	41	33	27	39	32	26	37	30	25	35	29	25
9	52	39	30	25	50	38	30	24	36	29	24	34	27	23	32	26	22
10	49	36	28	22	47	35	27	22	33	26	21	31	25	21	30	24	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16847	16847	16847
5°	16961	16740	16862
10°	16884	16760	16933
15°	16683	16733	16937
20°	16421	16655	16941
25°	16164	16596	16999
30°	15789	16522	17057
35°	15411	16483	17347
40°	15012	16574	17690
45°	14640	16781	18198
50°	14244	17132	18841
55°	13835	17580	19666
60°	13331	18213	20752
65°	12825	19065	22185
70°	12279	20415	24344
75°	11602	22923	28207
80°	10547	28259	36135
85°	10080	45387	61079

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 111953 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.9	2.5
10°-20°	289.4	7.1
20°-30°	438.5	10.8
30°-40°	533.9	13.1
40°-50°	574.5	14.1
50°-60°	557.9	13.7
60°-70°	487.2	12.0
70°-80°	375.0	9.2
80°-90°	251.1	6.2
90°-100°	173.3	4.3
100°-110°	126.5	3.1
110°-120°	83.5	2.1
120°-130°	46.5	1.1
130°-140°	19.5	0.5
140°-150°	3.3	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	828.7	20.4
0°-40°	1362.6	33.6
0°-60°	2495.0	61.4
0°-90°	3608.3	88.9
90°-120°	383.3	9.4
90°-150°	452.7	11.1
90°-180°	453.0	11.2
0°-180°	4061.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1064	1064	1064	1064	1064	
5°	1067	1063	1054	1063	1061	101
15°	1018	1021	1021	1035	1034	287
25°	926	936	950	969	973	426
35°	798	824	853	887	898	498
45°	654	696	750	798	813	505
55°	501	557	637	693	713	448
65°	342	418	509	572	592	340
75°	190	276	375	441	461	201
85°	56	151	250	315	336	59
90°	15	105	204	265	284	11
95°	12	85	177	236	254	10
105°	8	52	133	187	204	9
115°	6	23	92	139	156	6
125°	3	3	52	94	108	3
135°	2	2	17	49	62	2
145°	0	0	0	9	17	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°	1064.3	1064.3	1064.3	1064.3	1064.3
2.5°	1072.0	1067.4	1056.6	1064.3	1061.2
5°	1067.4	1062.8	1053.5	1062.8	1061.2
7.5°	1059.7	1056.6	1048.9	1059.7	1058.1
10°	1050.4	1047.3	1042.7	1055.0	1053.5
12.5°	1035.0	1036.5	1033.5	1045.8	1044.2
15°	1018.0	1021.1	1021.1	1035.0	1033.5
17.5°	996.4	1002.6	1007.2	1021.1	1021.1
20°	974.8	982.6	988.7	1005.7	1005.7
22.5°	951.7	961.0	970.2	987.2	990.3
25°	925.5	936.3	950.2	968.7	973.3
27.5°	894.6	911.6	927.0	950.2	953.2
30°	863.8	883.8	903.9	928.6	933.2
32.5°	829.8	853.0	877.7	907.0	916.2
35°	797.5	823.7	853.0	886.9	897.7
37.5°	762.0	791.3	828.3	865.3	876.1
40°	726.5	760.4	802.1	842.2	856.1
42.5°	692.6	726.5	775.9	820.6	834.5
45°	654.0	695.7	749.6	797.5	812.9
47.5°	617.0	661.7	723.4	772.8	789.7
50°	578.4	626.2	695.7	748.1	765.1
52.5°	541.4	592.3	666.3	720.3	738.8
55°	501.3	556.8	637.0	692.6	712.6
57.5°	462.7	524.4	604.6	664.8	684.9
60°	421.1	487.4	575.3	634.0	655.5
62.5°	384.1	453.5	541.4	604.6	624.7
65°	342.4	418.0	509.0	572.3	592.3
67.5°	305.4	384.1	476.6	539.9	561.5
70°	265.3	345.5	441.1	507.5	526.0
72.5°	228.3	311.6	408.8	473.5	496.7
75°	189.7	276.1	374.8	441.1	461.2
77.5°	152.7	242.2	342.4	408.8	430.3
80°	115.7	209.8	310.0	374.8	396.4
82.5°	84.8	177.4	279.2	344.0	364.0
85°	55.5	151.2	249.9	314.7	336.3
87.5°	33.9	126.5	225.2	288.4	308.5
90°	15.4	104.9	203.6	265.3	283.8
92.5°	13.9	95.6	189.7	249.9	268.4
95°	12.3	84.8	177.4	236.0	254.5
97.5°	10.8	77.1	166.6	223.7	242.2
100°	10.8	67.9	154.2	211.3	228.3
102.5°	9.3	60.2	143.4	199.0	215.9
105°	7.7	52.4	132.7	186.6	203.6
107.5°	7.7	44.7	121.9	174.3	191.3
110°	6.2	37.0	112.6	162.0	178.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	6.2	30.8	101.8	151.2	168.1
115°	6.2	23.1	92.5	138.8	155.8
117.5°	4.6	17.0	81.8	128.0	143.4
120°	4.6	10.8	72.5	115.7	132.7
122.5°	4.6	6.2	63.2	104.9	118.8
125°	3.1	3.1	52.4	94.1	108.0
127.5°	3.1	1.5	43.2	81.8	95.6
130°	3.1	1.5	33.9	71.0	83.3
132.5°	3.1	1.5	24.7	60.2	72.5
135°	1.5	1.5	17.0	49.4	61.7
137.5°	1.5	1.5	9.3	38.6	49.4
140°	1.5	0.0	3.1	27.8	37.0
142.5°	1.5	0.0	0.0	18.5	26.2
145°	0.0	0.0	0.0	9.3	17.0
147.5°	0.0	0.0	0.0	1.5	6.2
150°	0.0	0.0	0.0	0.0	0.0
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)