

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: P1037328

Luminaire Tested: S123DS-B560DB2750-4F0-XX-W2A-D_3000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1037328
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-15)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DS-B560DB2750-4F0-XX-W2A-D_3000K
Description: Define 3 Direct Surface with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

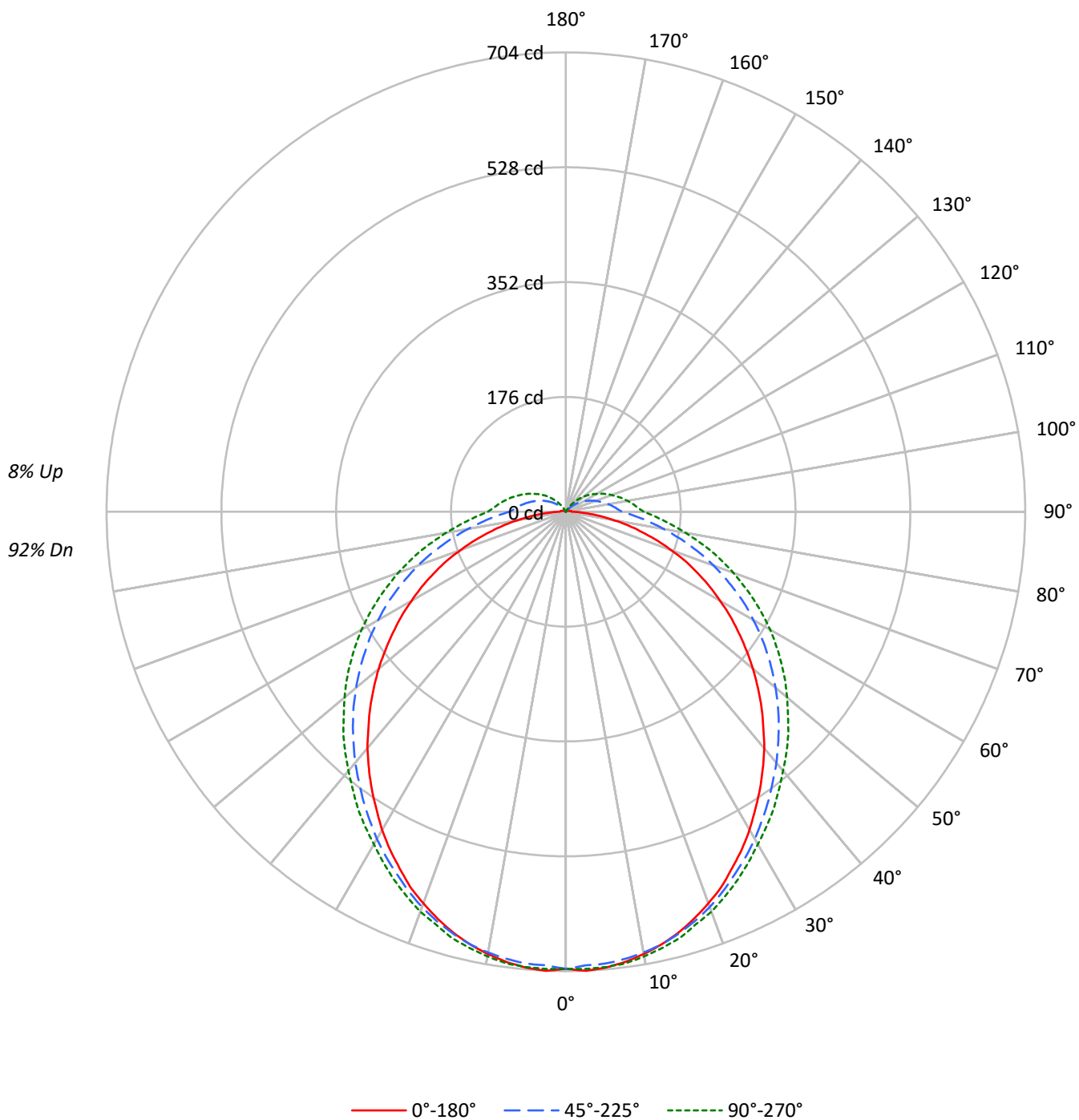
Lumens per Lamp: N/A
Luminaire Lumens: 2354.0 lumens
Efficiency: N/A
Efficacy: 98.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 24
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	117	117	117	117	113	113	113	113	106	106	106	100	100	100	94	94	94
1	105	100	95	90	102	97	92	88	91	87	84	85	82	80	80	78	76
2	95	86	79	72	92	83	77	71	79	73	68	74	69	65	70	66	63
3	86	75	67	60	83	73	65	59	69	62	56	65	59	54	61	56	52
4	79	66	57	50	76	64	56	49	61	54	48	57	51	46	54	49	45
5	72	59	50	43	70	58	49	42	54	47	41	52	45	40	49	43	39
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	44	38	34
7	62	48	39	33	60	47	38	32	45	37	32	42	36	31	40	35	30
8	58	44	35	29	56	43	35	29	41	33	28	39	32	28	37	31	27
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	28	24
10	50	37	29	24	49	36	29	24	35	28	23	33	27	23	32	26	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7539	7539	7539
5°	7576	7511	7568
10°	7522	7497	7564
15°	7439	7456	7533
20°	7315	7385	7473
25°	7159	7277	7394
30°	6999	7198	7312
35°	6817	7109	7299
40°	6648	7055	7280
45°	6457	7027	7340
50°	6273	7026	7410
55°	6071	7060	7561
60°	5881	7145	7787
65°	5695	7307	8084
70°	5404	7588	8598
75°	5045	8122	9553
80°	4680	9459	11542
85°	4619	14326	18464

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 32944 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.4	2.8
10°-20°	189.4	8.0
20°-30°	283.3	12.0
30°-40°	338.2	14.4
40°-50°	353.8	15.0
50°-60°	332.1	14.1
60°-70°	277.4	11.8
70°-80°	198.3	8.4
80°-90°	118.0	5.0
90°-100°	74.2	3.2
100°-110°	54.5	2.3
110°-120°	36.4	1.5
120°-130°	20.8	0.9
130°-140°	9.3	0.4
140°-150°	1.9	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	539.1	22.9
0°-40°	877.3	37.3
0°-60°	1563.2	66.4
0°-90°	2156.9	91.6
90°-120°	165.1	7.0
90°-150°	197.1	8.4
90°-180°	197.0	8.4
0°-180°	2354.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	700	700	700	700	700	
5°	701	700	695	701	700	67
15°	668	670	669	677	676	188
25°	603	610	613	623	623	278
35°	519	531	541	552	556	324
45°	424	442	462	476	482	327
55°	324	349	376	397	403	290
65°	224	253	287	310	317	221
75°	121	157	195	220	230	130
85°	37	76	116	142	150	38
90°	10	47	86	112	120	7
95°	8	38	76	99	107	7
105°	6	24	57	79	86	6
115°	4	13	40	59	65	4
125°	2	2	24	40	46	2
135°	2	1	9	23	27	1
145°	1	0	0	6	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°	700.4	700.4	700.4	700.4	700.4
2.5°	704.2	702.0	695.9	702.0	701.2
5°	701.2	699.7	695.1	701.2	700.4
7.5°	695.9	695.9	691.3	698.9	698.1
10°	688.2	689.7	685.9	693.6	692.0
12.5°	679.1	681.4	679.1	685.9	684.4
15°	667.6	669.9	669.1	676.8	676.0
17.5°	653.9	658.5	657.7	664.6	663.0
20°	638.6	643.2	644.7	651.6	652.4
22.5°	622.6	627.2	629.5	638.6	637.9
25°	602.8	610.4	612.7	622.6	622.6
27.5°	583.7	592.1	596.7	605.1	605.8
30°	563.1	573.0	579.1	588.3	588.3
32.5°	540.2	551.6	560.0	570.0	572.2
35°	518.8	531.0	541.0	552.4	555.5
37.5°	495.9	509.7	521.1	534.1	536.4
40°	473.1	486.8	502.1	515.0	518.1
42.5°	447.9	465.4	481.5	495.9	500.5
45°	424.2	442.5	461.6	476.1	482.2
47.5°	399.0	419.6	441.0	457.0	461.6
50°	374.6	396.0	419.6	437.2	442.5
52.5°	348.7	371.6	398.3	416.6	423.5
55°	323.5	348.7	376.2	396.8	402.9
57.5°	299.1	325.0	354.8	375.4	382.3
60°	273.2	300.6	331.9	353.3	361.7
62.5°	248.7	277.0	310.5	331.9	339.5
65°	223.6	253.3	286.9	309.8	317.4
67.5°	198.4	229.7	263.2	288.4	294.5
70°	171.7	204.5	241.1	265.5	273.2
72.5°	147.3	180.1	218.2	243.4	251.0
75°	121.3	157.2	195.3	220.5	229.7
77.5°	99.2	135.1	173.2	199.9	206.8
80°	75.5	112.9	152.6	178.5	186.2
82.5°	54.9	93.1	133.5	159.5	167.1
85°	37.4	75.5	116.0	141.9	149.5
87.5°	22.9	61.0	100.0	125.9	133.5
90°	9.9	47.3	86.2	112.2	119.8
92.5°	9.2	42.0	80.1	105.3	112.2
95°	8.4	38.1	75.5	99.2	106.8
97.5°	7.6	35.1	71.0	93.8	101.5
100°	6.9	31.3	66.4	88.5	96.1
102.5°	6.1	27.5	61.8	83.2	90.8
105°	6.1	24.4	57.2	78.6	85.5
107.5°	5.3	21.4	52.6	73.2	80.1
110°	4.6	18.3	48.8	68.7	74.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.6	15.3	44.3	63.3	70.2
115°	3.8	13.0	40.4	58.8	64.9
117.5°	3.8	9.9	35.9	54.2	60.3
120°	3.1	6.9	32.0	49.6	54.9
122.5°	3.1	4.6	28.2	45.0	50.4
125°	2.3	2.3	24.4	40.4	45.8
127.5°	2.3	1.5	20.6	35.9	41.2
130°	2.3	1.5	16.8	31.3	35.9
132.5°	1.5	1.5	13.0	26.7	32.0
135°	1.5	0.8	9.2	22.9	26.7
137.5°	1.5	0.8	6.1	18.3	22.1
140°	0.8	0.8	3.1	14.5	18.3
142.5°	0.8	0.0	0.0	9.9	13.7
145°	0.8	0.0	0.0	6.1	9.2
147.5°	0.0	0.0	0.0	2.3	5.3
150°	0.0	0.0	0.0	0.0	1.5
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)