

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: P998488

Luminaire Tested: S124DR-B350DB2750-4F0-XX-W2A-D_3000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P998488
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-16)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DR-B350DB2750-4F0-XX-W2A-D_3000K
Description: Define 4 Direct Recessed with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

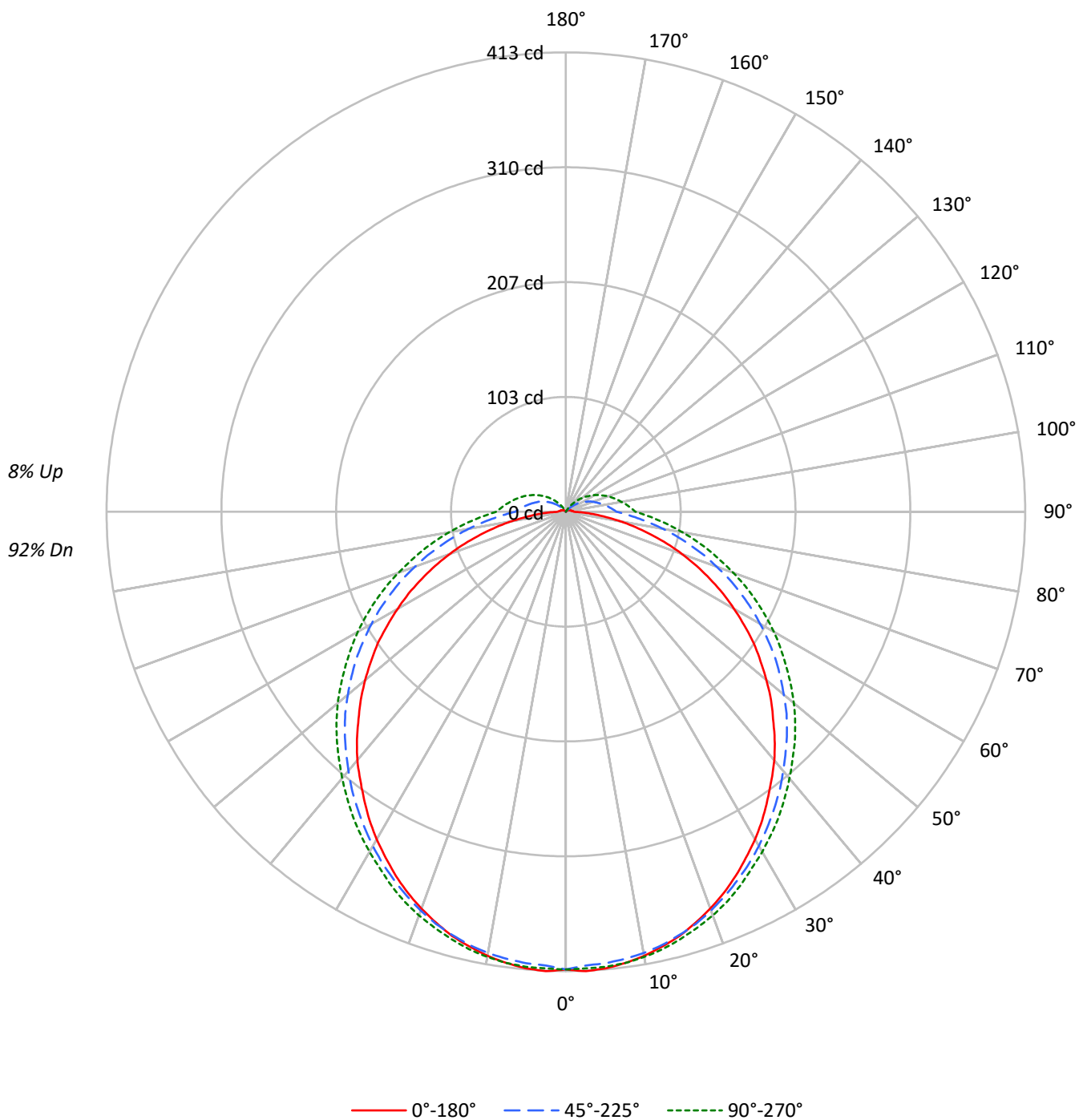
Lumens per Lamp: N/A
Luminaire Lumens: 1403.0 lumens
Efficiency: N/A
Efficacy: 107.9 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 13
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	0		
RCR																				
0	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	92		
1	105	100	95	91	102	97	93	89	91	88	84	86	83	80	81	79	77	74		
2	95	86	79	73	92	84	77	71	79	73	68	74	70	66	70	67	63	60		
3	87	75	67	60	83	73	65	59	69	62	57	65	60	55	62	57	53	50		
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	49	45	43		
5	73	59	50	43	70	58	49	42	55	47	41	52	45	40	49	44	39	37		
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	45	39	34	32		
7	62	48	39	33	60	47	38	32	45	37	32	43	36	31	41	35	30	28		
8	58	44	35	29	56	43	35	29	41	33	28	39	32	28	37	31	27	25		
9	54	40	32	26	52	39	31	26	38	30	25	36	29	25	34	29	24	22		
10	50	37	29	24	49	36	29	23	35	28	23	33	27	23	32	26	22	20		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3356	3356	3356
5°	3372	3335	3361
10°	3358	3335	3365
15°	3334	3326	3357
20°	3295	3311	3351
25°	3251	3288	3338
30°	3202	3267	3324
35°	3147	3248	3326
40°	3105	3237	3331
45°	3040	3242	3358
50°	2988	3245	3396
55°	2934	3268	3439
60°	2848	3291	3524
65°	2757	3344	3637
70°	2649	3438	3812
75°	2498	3645	4181
80°	2357	4175	4997
85°	2283	6035	7756

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 13441 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.0	2.8
10°-20°	111.7	8.0
20°-30°	168.9	12.0
30°-40°	204.4	14.6
40°-50°	216.0	15.4
50°-60°	203.3	14.5
60°-70°	168.7	12.0
70°-80°	118.4	8.4
80°-90°	66.7	4.8
90°-100°	39.7	2.8
100°-110°	29.4	2.1
110°-120°	19.8	1.4
120°-130°	11.1	0.8
130°-140°	4.8	0.3
140°-150°	1.0	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	319.6	22.8
0°-40°	524.0	37.3
0°-60°	943.3	67.2
0°-90°	1297.2	92.5
90°-120°	88.9	6.3
90°-150°	105.8	7.5
90°-180°	106.0	7.6
0°-180°	1403.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	412	412	412	412	412	
5°	412	411	407	411	411	39
15°	395	395	394	398	398	111
25°	361	364	365	370	371	166
35°	316	322	326	333	334	198
45°	264	272	281	289	291	204
55°	206	216	230	239	242	184
65°	143	158	173	185	188	142
75°	79	96	116	129	133	84
85°	24	44	64	78	83	25
90°	7	26	46	59	63	5
95°	6	21	40	52	57	5
105°	4	13	30	42	46	5
115°	3	7	22	32	35	3
125°	2	1	13	22	24	2
135°	1	1	4	12	14	1
145°	0	0	0	3	5	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°	411.5	411.5	411.5	411.5	411.5
2.5°	413.4	412.0	408.3	411.5	411.0
5°	412.0	410.6	407.4	411.0	410.6
7.5°	409.2	408.3	405.5	409.7	409.2
10°	405.5	405.1	402.8	406.9	406.4
12.5°	400.4	400.4	399.1	402.8	402.8
15°	394.9	395.4	394.0	398.1	397.7
17.5°	387.5	388.9	388.5	392.6	392.2
20°	379.7	381.1	381.6	386.2	386.2
22.5°	371.0	372.8	373.7	378.3	379.3
25°	361.3	364.0	365.4	370.5	371.0
27.5°	350.7	354.8	356.7	361.3	361.7
30°	340.1	343.8	347.0	352.1	353.0
32.5°	328.6	333.2	336.9	342.8	343.8
35°	316.1	321.6	326.3	332.7	334.1
37.5°	303.7	310.1	315.7	322.1	323.5
40°	291.7	297.7	304.1	311.1	312.9
42.5°	277.9	284.8	292.6	300.5	301.8
45°	263.6	272.3	281.1	288.9	291.2
47.5°	250.2	259.0	269.1	277.0	279.7
50°	235.5	245.6	255.8	265.0	267.7
52.5°	220.7	230.9	242.8	252.1	254.8
55°	206.4	216.1	229.9	239.2	241.9
57.5°	190.3	202.3	215.7	226.7	229.0
60°	174.6	186.6	201.8	212.4	216.1
62.5°	159.4	172.8	188.0	198.6	202.3
65°	142.9	157.6	173.3	184.8	188.5
67.5°	127.2	142.9	159.4	171.0	174.6
70°	111.1	126.7	144.2	156.7	159.9
72.5°	95.4	111.5	130.4	142.4	146.1
75°	79.3	96.3	115.7	128.6	132.7
77.5°	64.1	82.0	102.3	115.2	119.8
80°	50.2	68.7	88.9	102.8	106.4
82.5°	36.4	55.8	76.0	90.3	94.5
85°	24.4	43.8	64.5	78.3	82.9
87.5°	15.2	34.1	54.4	67.7	71.9
90°	7.4	25.8	45.6	59.0	62.7
92.5°	6.9	23.0	42.9	55.8	59.4
95°	6.0	21.2	40.1	52.5	56.7
97.5°	5.5	18.9	37.8	49.8	53.9
100°	5.1	17.1	35.0	47.5	50.7
102.5°	5.1	15.2	32.7	44.7	48.4
105°	4.1	13.4	30.4	41.9	45.6
107.5°	4.1	12.0	28.1	39.6	42.9
110°	3.7	10.1	26.3	36.9	40.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.2	8.8	24.0	34.1	37.8
115°	2.8	6.9	21.7	31.8	35.0
117.5°	2.8	5.5	19.4	29.0	32.7
120°	2.3	3.7	17.1	26.3	30.0
122.5°	2.3	2.3	14.7	24.0	27.2
125°	1.8	1.4	12.9	21.7	24.4
127.5°	1.8	1.4	10.6	18.9	22.1
130°	1.4	0.9	8.3	16.6	19.4
132.5°	1.4	0.9	6.5	14.3	17.1
135°	0.9	0.9	4.1	11.5	14.3
137.5°	0.9	0.5	2.3	9.2	11.5
140°	0.9	0.5	0.9	6.9	9.2
142.5°	0.5	0.5	0.0	5.1	6.9
145°	0.5	0.0	0.0	2.8	4.6
147.5°	0.5	0.0	0.0	0.5	2.3
150°	0.5	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)