

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: P1033786

Luminaire Tested: S124DIW-B795D470UB40-4F0-XX-W2A-F

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033786
REPORT IS A COMBINATION OF REPORTS P998191 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B795D470UB40-4F0-XX-W2A-F
Description: Define 4 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

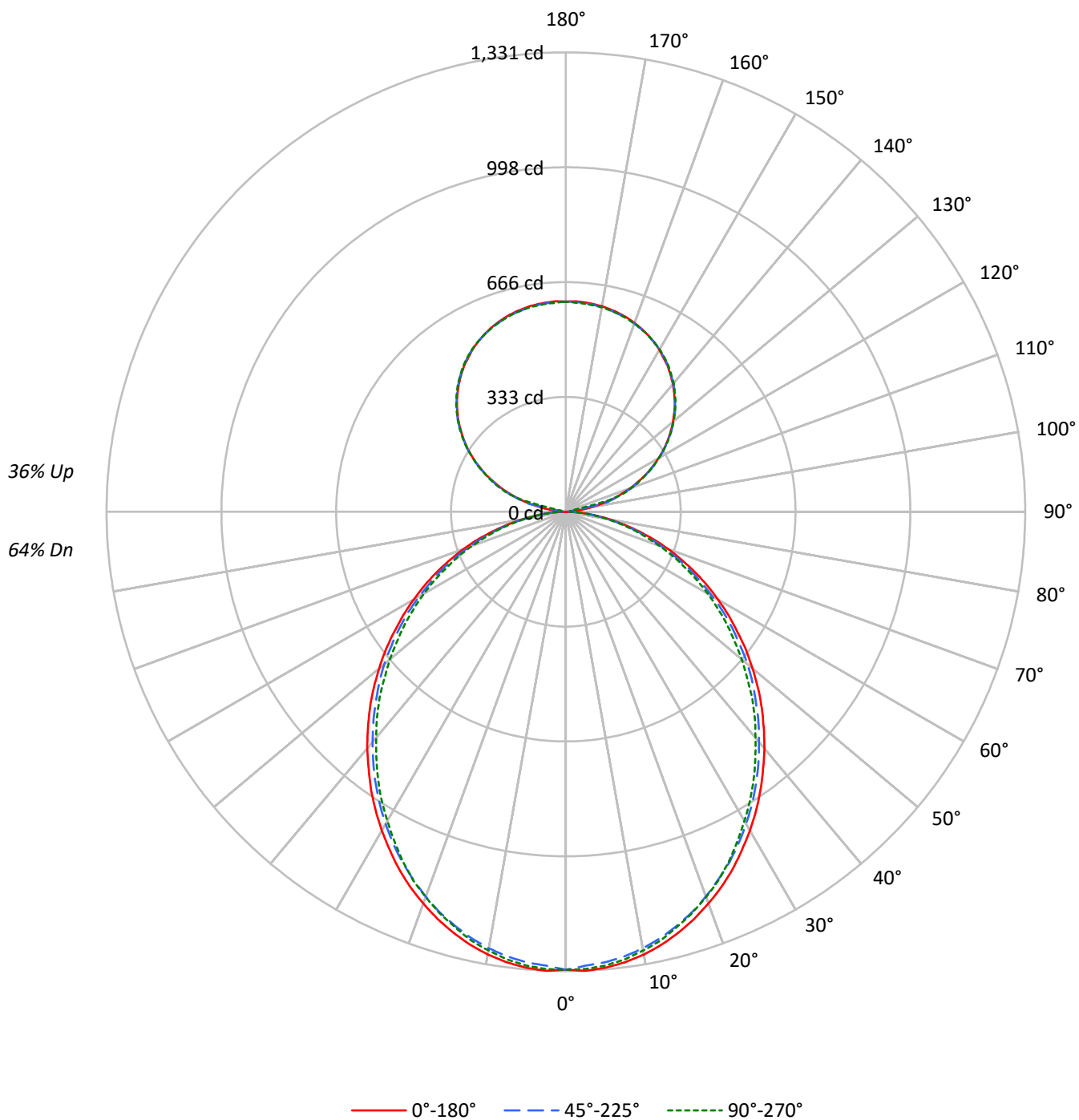
Lumens per Lamp: N/A
Luminaire Lumens: 5292.0 lumens
Efficiency: N/A
Efficacy: 107.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 49.1
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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	111	111	111	111	104	104	104	104	91	91	91	80	80	80	69	69	69	64		
1	101	97	93	89	95	91	87	84	80	77	75	70	68	67	61	60	59	54		
2	92	84	78	73	86	79	74	69	70	66	62	62	58	56	54	51	49	45		
3	84	74	67	61	78	70	63	58	62	57	52	55	50	47	48	45	42	38		
4	77	66	58	51	72	62	55	49	55	49	45	49	44	40	43	39	36	33		
5	71	59	50	44	66	55	48	42	49	43	39	44	39	35	38	35	32	29		
6	65	53	44	38	61	50	42	37	45	38	34	40	35	31	35	31	28	25		
7	60	48	39	34	56	45	38	32	40	34	30	36	31	27	32	28	25	22		
8	56	43	35	30	53	41	34	29	37	31	27	33	28	24	29	25	22	20		
9	52	40	32	27	49	38	31	26	34	28	24	30	25	22	27	23	20	18		
10	49	36	29	24	46	35	28	23	31	26	22	28	23	20	25	21	18	16		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10821	10821	10821
5°	10830	10510	10523
10°	10738	10218	10146
15°	10584	9871	9722
20°	10387	9495	9283
25°	10166	9099	8810
30°	9899	8671	8291
35°	9623	8232	7789
40°	9335	7759	7255
45°	9032	7286	6756
50°	8697	6827	6204
55°	8334	6291	5655
60°	7961	5703	5084
65°	7536	5096	4439
70°	7045	4367	3750
75°	6311	3519	3003
80°	5380	2545	2113
85°	4177	1417	1136

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9032 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.1	2.4
10°-20°	352.4	6.7
20°-30°	518.6	9.8
30°-40°	602.8	11.4
40°-50°	602.8	11.4
50°-60°	527.2	10.0
60°-70°	391.4	7.4
70°-80°	222.1	4.2
80°-90°	64.9	1.2
90°-100°	20.2	0.4
100°-110°	133.1	2.5
110°-120°	254.3	4.8
120°-130°	322.8	6.1
130°-140°	345.3	6.5
140°-150°	322.9	6.1
150°-160°	260.4	4.9
160°-170°	167.9	3.2
170°-180°	57.9	1.1
0°-30°	996.1	18.8
0°-40°	1598.9	30.2
0°-60°	2728.9	51.6
0°-90°	3407.3	64.4
90°-120°	407.6	7.7
90°-150°	1398.6	26.4
90°-180°	1885.0	35.6
0°-180°	5292.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1327	1327	1327	1327	1327	
5°	1326	1322	1310	1322	1320	126
15°	1262	1258	1242	1248	1245	356
25°	1143	1136	1121	1122	1118	526
35°	984	976	961	954	948	615
45°	803	795	778	767	763	619
55°	607	604	589	576	570	544
65°	412	406	396	385	380	407
75°	219	214	208	204	203	232
85°	57	57	55	55	54	62
90°	1	6	10	13	14	5
95°	25	10	10	13	13	31
105°	137	140	142	146	130	143
115°	256	257	257	258	258	252
125°	360	362	361	362	363	321
135°	446	446	448	449	450	344
145°	515	516	516	517	518	322
155°	564	565	564	565	564	260
165°	595	593	593	597	593	168
175°	609	606	607	611	605	58
180°	609	609	609	609	609	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1327.0	1327.0	1327.0	1327.0	1327.0
2.5°	1331.3	1328.1	1316.4	1327.0	1325.9
5°	1325.9	1321.7	1310.0	1321.7	1319.6
7.5°	1316.4	1312.1	1299.4	1308.9	1307.9
10°	1302.5	1298.3	1284.5	1293.0	1290.8
12.5°	1284.5	1280.2	1265.3	1274.9	1271.7
15°	1262.1	1257.9	1241.9	1248.3	1245.1
17.5°	1236.6	1231.3	1216.4	1220.7	1218.5
20°	1207.9	1202.6	1186.6	1189.8	1187.7
22.5°	1177.1	1169.6	1153.7	1160.1	1155.8
25°	1143.0	1135.6	1120.7	1121.8	1117.5
27.5°	1104.8	1097.3	1083.5	1081.4	1076.1
30°	1066.5	1058.0	1044.2	1039.9	1034.6
32.5°	1026.1	1018.6	1003.8	998.4	993.1
35°	983.6	976.1	961.2	953.8	948.5
37.5°	938.9	932.5	916.6	909.1	901.7
40°	895.3	886.8	870.8	860.2	854.9
42.5°	848.5	844.3	826.2	813.4	810.2
45°	802.8	795.3	778.3	766.6	763.4
47.5°	754.9	749.6	733.7	720.9	712.4
50°	706.0	701.8	686.9	672.0	665.6
52.5°	658.2	652.9	636.9	624.2	615.7
55°	607.1	604.0	589.1	576.3	569.9
57.5°	559.3	556.1	541.2	528.5	522.1
60°	509.3	504.0	490.2	480.6	475.3
62.5°	460.4	456.2	441.3	432.8	427.4
65°	411.5	406.2	395.5	384.9	379.6
67.5°	361.5	357.3	346.6	336.0	334.9
70°	315.8	308.4	299.9	291.3	288.2
72.5°	266.9	259.4	253.1	246.7	243.5
75°	219.0	213.7	208.4	204.2	203.1
77.5°	172.3	170.1	164.8	163.7	160.6
80°	130.8	127.6	125.5	123.3	122.3
82.5°	90.4	89.3	89.3	88.3	87.2
85°	57.4	57.4	55.3	55.3	54.2
87.5°	27.6	26.6	25.5	25.5	25.5
90°	1.4	6.4	10.0	12.8	13.7
92.5°	6.8	5.9	9.6	12.3	12.3
95°	25.1	9.6	10.0	12.8	13.2
97.5°	47.8	57.9	10.0	12.3	12.8
100°	74.7	82.9	20.0	12.3	12.8
102.5°	104.8	110.2	115.7	13.2	13.2
105°	137.1	139.9	142.1	146.2	129.8
107.5°	166.7	168.1	171.3	173.6	175.4
110°	196.8	198.2	200.9	201.8	203.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	226.0	228.7	229.6	229.1	231.0
115°	256.0	257.4	256.9	257.9	257.9
117.5°	282.9	284.7	286.1	285.6	285.6
120°	310.2	312.1	311.6	312.5	311.6
122.5°	335.8	336.7	337.6	338.0	337.1
125°	359.9	361.7	360.8	362.2	362.6
127.5°	383.1	383.6	385.9	385.4	385.0
130°	405.5	405.9	407.3	407.7	407.7
132.5°	426.0	426.9	428.7	429.1	428.7
135°	446.5	446.0	447.8	448.7	449.6
137.5°	464.7	464.7	467.0	467.9	467.4
140°	482.4	483.4	484.3	485.6	486.1
142.5°	498.4	500.2	500.7	501.6	501.6
145°	514.8	516.2	516.2	516.6	517.5
147.5°	527.5	530.3	529.8	530.3	530.7
150°	541.7	543.5	543.0	543.0	543.5
152.5°	553.5	554.9	554.0	554.9	554.4
155°	564.4	564.9	563.5	565.4	564.0
157.5°	574.0	574.0	572.2	574.5	572.2
160°	582.2	580.8	580.4	583.1	580.4
162.5°	589.5	587.7	587.2	590.0	586.8
165°	595.4	593.1	593.1	596.8	592.7
167.5°	600.4	598.2	597.7	601.8	597.2
170°	604.5	601.8	602.3	605.9	601.3
172.5°	607.3	604.5	605.0	608.6	603.6
175°	609.1	606.4	606.8	610.9	605.4
177.5°	610.5	607.3	608.2	611.8	606.4
180°	609.1	609.1	609.1	609.1	609.1

(END OF REPORT)