

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P998101

Luminaire Tested: SA2XXDIP-B290D1080UB2750-4F0-XX-W2A-F_3000K

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998101
REPORT IS A COMBINATION OF REPORTS P983838 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B290D1080UB2750-4F0-XX-W2A-F_3000K
Description: Define 2 Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

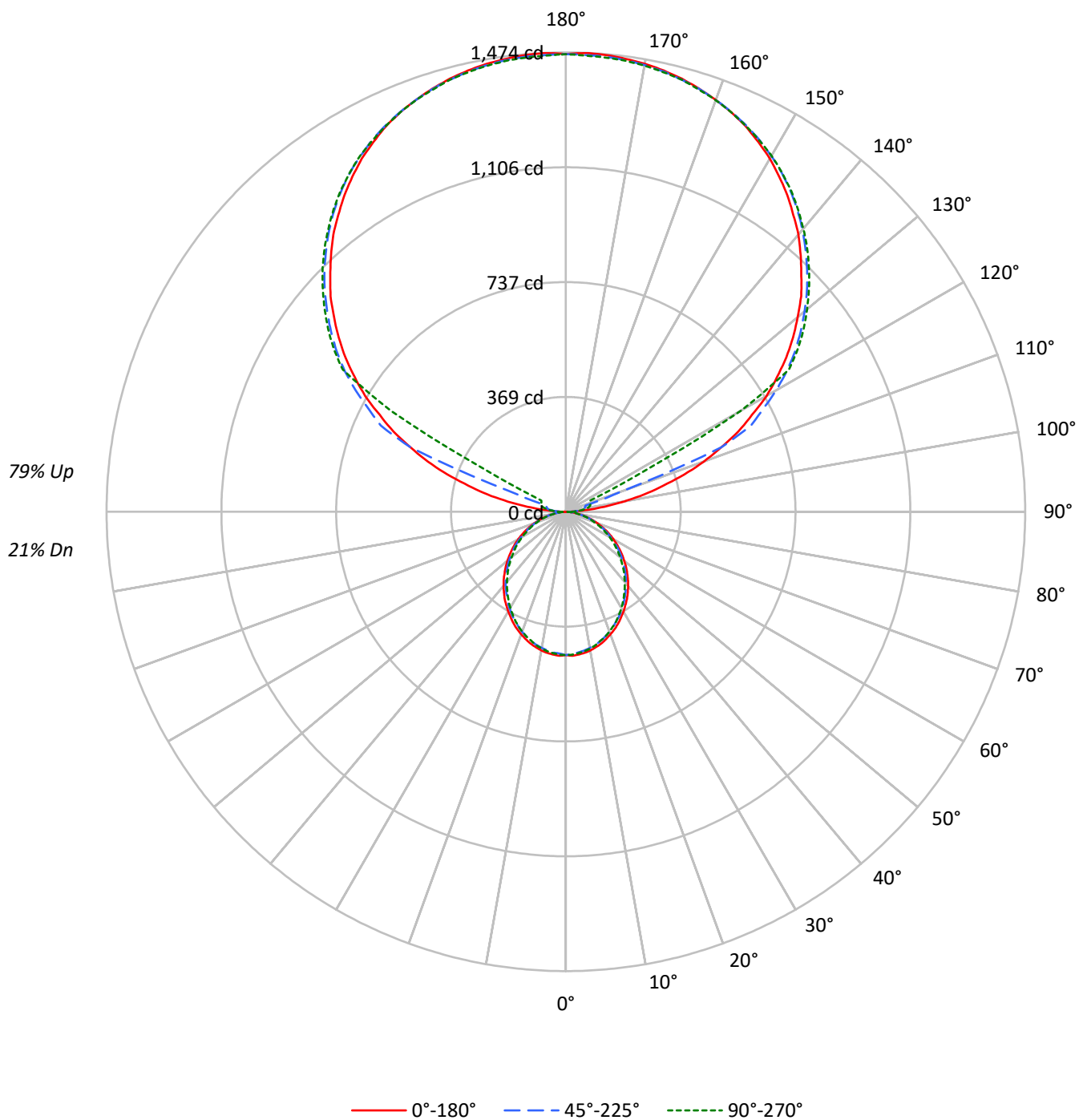
Lumens per Lamp: N/A
Luminaire Lumens: 5477.0 lumens
Efficiency: N/A
Efficacy: 114.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 48
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	50	30	10
RCR																				
0	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	21		
1	91	87	84	80	81	77	74	72	59	57	55	42	41	40	26	26	25	18		
2	83	76	70	65	73	68	63	59	52	48	46	37	35	33	23	22	21	15		
3	76	67	60	54	67	59	54	49	45	41	38	32	30	28	20	19	18	13		
4	69	59	51	46	61	52	46	41	40	36	32	29	26	24	18	17	15	11		
5	63	52	45	39	56	47	40	35	36	31	28	26	23	21	16	15	13	10		
6	58	47	39	34	51	42	35	30	32	28	24	23	20	18	15	13	12	8		
7	54	42	34	29	47	38	31	26	29	24	21	21	18	16	14	12	10	7		
8	50	38	31	26	44	34	28	23	26	22	18	19	16	14	12	11	9	7		
9	46	34	27	23	41	31	25	20	24	20	16	18	15	12	11	10	8	6		
10	43	31	25	20	38	28	22	18	22	18	15	16	13	11	11	9	8	5		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7280	7280	7280
5°	7292	6938	6890
10°	7232	6622	6491
15°	7127	6304	6072
20°	6983	5958	5675
25°	6840	5595	5278
30°	6661	5255	4863
35°	6491	4896	4455
40°	6282	4542	4069
45°	6074	4191	3690
50°	5847	3833	3296
55°	5609	3451	2925
60°	5341	3037	2537
65°	5044	2618	2132
70°	4673	2156	1721
75°	4156	1663	1328
80°	3529	1131	856
85°	2557	524	364

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6074 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.3	0.8
10°-20°	121.8	2.2
20°-30°	179.0	3.3
30°-40°	207.9	3.8
40°-50°	207.6	3.8
50°-60°	181.0	3.3
60°-70°	133.8	2.4
70°-80°	75.7	1.4
80°-90°	22.6	0.4
90°-100°	48.4	0.9
100°-110°	180.5	3.3
110°-120°	478.7	8.7
120°-130°	793.9	14.5
130°-140°	843.3	15.4
140°-150°	783.8	14.3
150°-160°	630.1	11.5
160°-170°	406.0	7.4
170°-180°	139.7	2.6
0°-30°	344.0	6.3
0°-40°	551.9	10.1
0°-60°	940.5	17.2
0°-90°	1172.6	21.4
90°-120°	707.6	12.9
90°-150°	3128.5	57.1
90°-180°	4304.0	78.6
0°-180°	5477.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	460	460	460	460	460	
5°	460	458	453	457	456	44
15°	438	435	429	431	429	123
25°	396	393	385	386	385	182
35°	342	337	330	328	326	213
45°	278	275	268	264	262	215
55°	210	208	202	197	195	188
65°	142	139	135	131	129	140
75°	74	73	71	68	69	79
85°	18	18	17	16	16	20
90°	1	13	21	27	29	5
95°	69	34	41	47	46	82
105°	323	355	65	76	81	345
115°	611	629	656	164	87	601
125°	864	878	898	905	908	770
135°	1069	1086	1095	1106	1104	826
145°	1240	1239	1257	1264	1259	775
155°	1365	1356	1368	1375	1366	629
165°	1438	1432	1435	1443	1435	406
175°	1471	1464	1466	1474	1463	140
180°	1468	1468	1468	1468	1468	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	459.9	459.9	459.9	459.9	459.9
2.5°	462.5	460.3	455.5	459.9	459.0
5°	459.9	458.1	453.2	456.8	455.9
7.5°	456.8	454.1	449.3	452.8	451.9
10°	451.9	448.8	443.5	447.1	445.7
12.5°	445.3	442.6	437.3	439.5	438.7
15°	437.8	435.1	429.4	431.1	428.9
17.5°	428.5	425.8	420.1	422.3	420.1
20°	418.3	415.7	409.5	410.8	409.0
22.5°	408.1	404.2	398.4	398.4	397.5
25°	396.2	392.7	385.1	386.0	385.1
27.5°	382.9	379.8	374.1	372.8	370.6
30°	369.7	366.1	359.5	358.2	356.4
32.5°	355.5	352.9	345.8	343.1	341.4
35°	341.8	337.4	330.3	327.7	325.5
37.5°	326.3	322.4	315.3	312.2	310.0
40°	310.4	306.9	299.8	295.8	294.1
42.5°	294.9	291.4	284.3	279.9	277.3
45°	278.1	275.0	268.4	263.5	261.8
47.5°	261.8	258.7	251.6	246.7	244.1
50°	244.5	242.3	236.1	229.9	227.7
52.5°	227.7	224.6	218.9	214.0	210.9
55°	210.5	207.8	202.5	197.2	195.0
57.5°	193.2	191.0	185.3	180.0	178.2
60°	176.0	174.2	168.0	163.2	161.8
62.5°	159.2	156.1	151.7	147.2	145.5
65°	141.9	139.3	134.9	130.9	128.7
67.5°	124.3	122.0	118.1	115.0	113.2
70°	107.9	106.1	102.1	99.1	97.3
72.5°	91.1	89.3	87.1	84.0	82.7
75°	74.3	73.4	71.2	68.5	69.4
77.5°	59.3	57.5	56.6	55.3	53.9
80°	44.2	43.8	42.9	41.6	40.7
82.5°	30.1	30.1	29.6	27.9	27.9
85°	18.1	17.7	17.2	15.9	15.5
87.5°	8.0	7.1	6.2	4.9	4.4
90°	1.1	12.7	21.2	26.6	28.7
92.5°	26.6	22.3	25.5	27.6	28.7
95°	69.1	34.0	41.4	46.7	45.7
97.5°	124.3	37.2	54.2	57.4	58.4
100°	188.0	42.5	60.6	69.1	71.2
102.5°	258.2	256.0	62.7	74.4	77.6
105°	323.0	354.8	64.8	76.5	80.7
107.5°	398.4	425.0	66.9	78.6	82.9
110°	470.6	493.0	185.9	79.7	83.9

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	538.6	557.8	539.7	81.8	85.0
115°	610.9	628.9	655.5	163.6	87.1
117.5°	673.6	694.8	712.9	561.0	282.6
120°	743.7	759.6	778.8	791.5	648.1
122.5°	803.2	820.2	841.4	847.8	848.9
125°	863.7	877.6	897.7	905.2	908.4
127.5°	919.0	933.9	949.8	960.4	961.5
130°	971.0	988.0	999.7	1011.4	1010.4
132.5°	1024.2	1038.0	1049.7	1059.2	1058.2
135°	1068.8	1085.8	1095.3	1106.0	1103.8
137.5°	1115.5	1128.3	1138.9	1149.5	1146.3
140°	1161.2	1169.7	1181.4	1191.0	1185.7
142.5°	1199.5	1206.9	1220.7	1229.2	1223.9
145°	1239.8	1238.8	1256.8	1264.3	1259.0
147.5°	1274.9	1271.7	1289.8	1295.1	1290.8
150°	1308.9	1301.5	1318.5	1324.8	1319.5
152.5°	1337.6	1329.1	1345.0	1351.4	1344.0
155°	1365.2	1355.6	1368.4	1374.8	1366.3
157.5°	1387.5	1379.0	1388.6	1396.0	1387.5
160°	1406.6	1400.3	1406.6	1413.0	1405.6
162.5°	1423.6	1417.3	1422.6	1430.0	1420.4
165°	1438.5	1432.1	1435.3	1442.8	1435.3
167.5°	1450.2	1443.8	1447.0	1454.4	1444.9
170°	1459.8	1453.4	1455.5	1462.9	1453.4
172.5°	1466.1	1459.8	1461.9	1469.3	1459.8
175°	1471.4	1464.0	1466.1	1473.6	1462.9
177.5°	1473.6	1466.1	1467.2	1474.6	1465.1
180°	1468.3	1468.3	1468.3	1468.3	1468.3

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	8.57	9.22	9.74	10.38	12.01	9.36	10.01	10.53	11.16	12.79
	3H	9.89	10.48	11.07	11.64	13.28	10.97	11.55	12.14	12.71	14.35
	4H	10.29	10.84	11.47	12.01	13.65	11.55	12.10	12.73	13.26	14.91
	6H	10.50	11.01	11.69	12.17	13.83	11.94	12.45	13.13	13.61	15.27
	8H	10.52	11.01	11.71	12.18	13.83	12.04	12.53	13.24	13.71	15.36
	12H	10.51	10.97	11.70	12.14	13.81	12.08	12.54	13.28	13.71	15.38
4H	2H	9.02	9.57	10.21	10.73	12.38	9.66	10.22	10.85	11.38	13.02
	3H	10.51	10.98	11.71	12.16	13.82	11.42	11.88	12.62	13.07	14.73
	4H	11.01	11.44	12.21	12.61	14.29	12.09	12.52	13.29	13.69	15.37
	6H	11.30	11.67	12.50	12.86	14.53	12.58	12.94	13.78	14.14	15.80
	8H	11.35	11.69	12.55	12.88	14.57	12.72	13.06	13.91	14.24	15.93
	12H	11.34	11.65	12.56	12.85	14.54	12.77	13.08	13.98	14.27	15.96
8H	4H	11.17	11.51	12.37	12.70	14.38	12.16	12.50	13.36	13.69	15.37
	6H	11.54	11.82	12.76	13.06	14.73	12.72	13.00	13.94	14.23	15.91
	8H	11.64	11.89	12.87	13.10	14.80	12.91	13.15	14.13	14.36	16.06
	12H	11.67	11.88	12.89	13.09	14.82	13.00	13.21	14.22	14.42	16.15
12H	4H	11.14	11.45	12.36	12.65	14.34	12.11	12.42	13.33	13.62	15.31
	6H	11.56	11.80	12.78	13.01	14.71	12.71	12.96	13.93	14.16	15.86
	8H	11.66	11.88	12.89	13.08	14.81	12.90	13.11	14.13	14.32	16.05

END OF REPORT