

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: P998135

Luminaire Tested: SA2XXDIP-B290D1080UB50-4F0-XX-W2A-F

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998135
REPORT IS A COMBINATION OF REPORTS P983875 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B290D1080UB50-4F0-XX-W2A-F
Description: Define 2 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

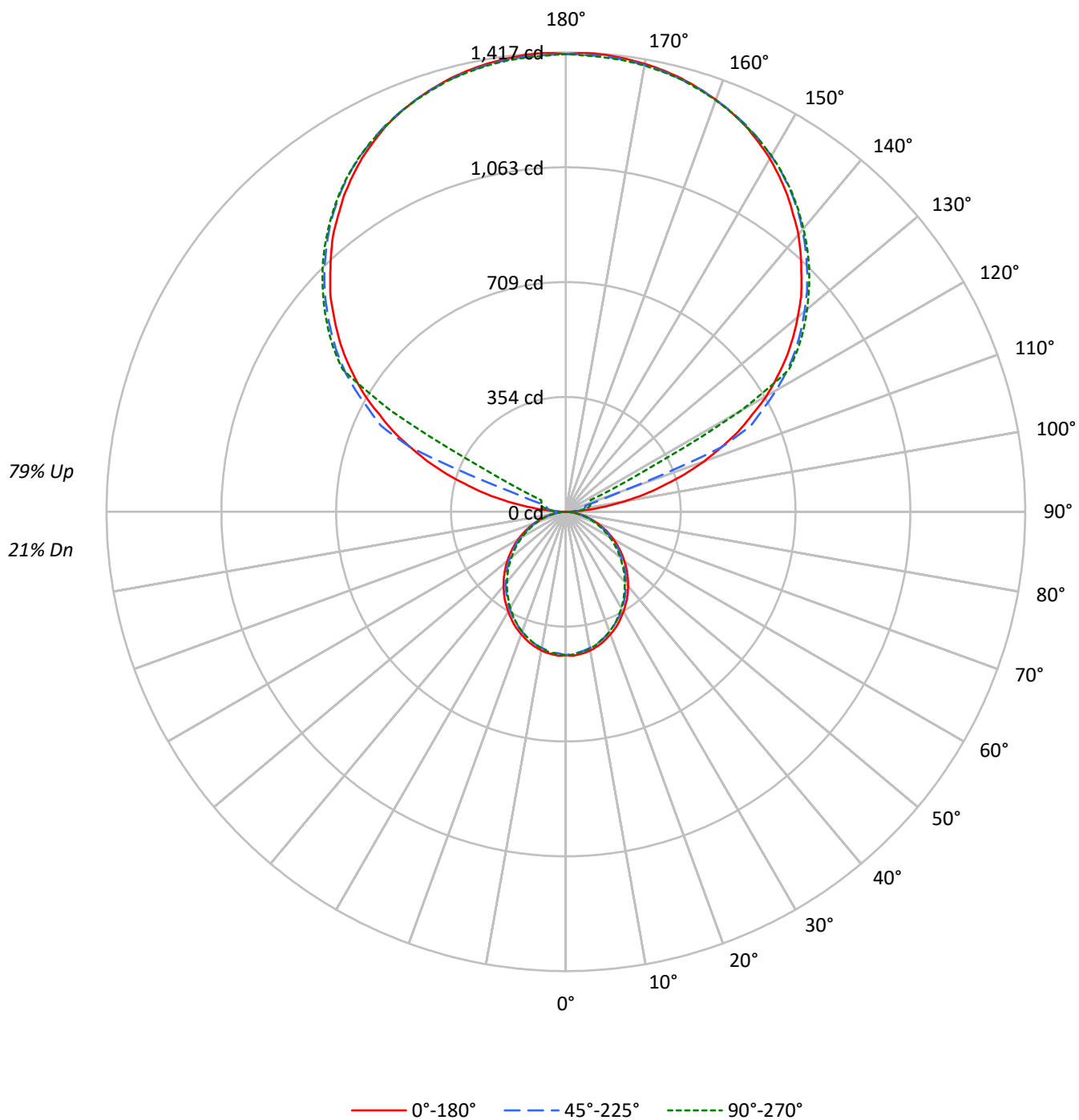
Lumens per Lamp: N/A
Luminaire Lumens: 5266.0 lumens
Efficiency: N/A
Efficacy: 109.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7000	7000	7000
5°	7011	6672	6625
10°	6953	6368	6242
15°	6852	6062	5838
20°	6714	5728	5457
25°	6578	5380	5075
30°	6405	5054	4676
35°	6243	4708	4283
40°	6041	4368	3911
45°	5840	4030	3548
50°	5622	3686	3170
55°	5393	3318	2812
60°	5134	2922	2440
65°	4852	2517	2049
70°	4491	2074	1654
75°	3994	1600	1279
80°	3393	1086	822
85°	2458	506	350

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 5840 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.6	0.8
10°-20°	117.1	2.2
20°-30°	172.1	3.3
30°-40°	199.9	3.8
40°-50°	199.6	3.8
50°-60°	174.1	3.3
60°-70°	128.7	2.4
70°-80°	72.8	1.4
80°-90°	21.7	0.4
90°-100°	46.6	0.9
100°-110°	173.5	3.3
110°-120°	460.2	8.7
120°-130°	763.3	14.5
130°-140°	810.8	15.4
140°-150°	753.6	14.3
150°-160°	605.8	11.5
160°-170°	390.4	7.4
170°-180°	134.4	2.6
0°-30°	330.8	6.3
0°-40°	530.7	10.1
0°-60°	904.3	17.2
0°-90°	1127.5	21.4
90°-120°	680.3	12.9
90°-150°	3007.9	57.1
90°-180°	4139.0	78.6
0°-180°	5266.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	442	442	442	442	442	
5°	442	440	436	439	438	42
15°	421	418	413	415	412	119
25°	381	378	370	371	370	175
35°	329	324	318	315	313	205
45°	267	264	258	253	252	206
55°	202	200	195	190	188	181
65°	136	134	130	126	124	135
75°	71	71	68	66	67	76
85°	17	17	17	15	15	19
90°	1	12	20	26	28	5
95°	66	33	40	45	44	79
105°	310	341	62	74	78	332
115°	587	605	630	157	84	578
125°	830	844	863	870	873	741
135°	1028	1044	1053	1063	1061	794
145°	1192	1191	1208	1216	1210	746
155°	1313	1303	1316	1322	1314	605
165°	1383	1377	1380	1387	1380	391
175°	1415	1408	1410	1417	1407	135
180°	1412	1412	1412	1412	1412	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	442.2	442.2	442.2	442.2	442.2
2.5°	444.7	442.6	437.9	442.2	441.3
5°	442.2	440.5	435.8	439.2	438.4
7.5°	439.2	436.7	432.0	435.4	434.5
10°	434.5	431.6	426.5	429.9	428.6
12.5°	428.2	425.6	420.5	422.6	421.8
15°	420.9	418.4	412.9	414.6	412.4
17.5°	412.0	409.5	403.9	406.0	403.9
20°	402.2	399.7	393.7	395.0	393.3
22.5°	392.4	388.6	383.1	383.1	382.2
25°	381.0	377.6	370.3	371.2	370.3
27.5°	368.2	365.2	359.7	358.4	356.3
30°	355.5	352.1	345.7	344.4	342.7
32.5°	341.8	339.3	332.5	329.9	328.2
35°	328.7	324.4	317.6	315.1	312.9
37.5°	313.8	310.0	303.2	300.2	298.1
40°	298.5	295.1	288.3	284.4	282.7
42.5°	283.6	280.2	273.4	269.1	266.6
45°	267.4	264.5	258.1	253.4	251.7
47.5°	251.7	248.7	241.9	237.3	234.7
50°	235.1	233.0	227.0	221.1	219.0
52.5°	219.0	216.0	210.5	205.8	202.8
55°	202.4	199.8	194.7	189.6	187.5
57.5°	185.8	183.7	178.2	173.0	171.3
60°	169.2	167.5	161.6	156.9	155.6
62.5°	153.1	150.1	145.8	141.6	139.9
65°	136.5	133.9	129.7	125.9	123.7
67.5°	119.5	117.4	113.5	110.5	108.8
70°	103.7	102.0	98.2	95.2	93.5
72.5°	87.6	85.9	83.8	80.8	79.5
75°	71.4	70.6	68.5	65.9	66.8
77.5°	57.0	55.3	54.4	53.1	51.9
80°	42.5	42.1	41.2	40.0	39.1
82.5°	28.9	28.9	28.5	26.8	26.8
85°	17.4	17.0	16.6	15.3	14.9
87.5°	7.7	6.8	6.0	4.7	4.3
90°	1.0	12.3	20.4	25.5	27.6
92.5°	25.5	21.5	24.5	26.6	27.6
95°	66.4	32.7	39.8	44.9	43.9
97.5°	119.5	35.8	52.1	55.2	56.2
100°	180.8	40.9	58.2	66.4	68.4
102.5°	248.2	246.2	60.3	71.5	74.6
105°	310.5	341.2	62.3	73.5	77.6
107.5°	383.1	408.6	64.4	75.6	79.7
110°	452.5	474.0	178.8	76.6	80.7

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	517.9	536.3	518.9	78.7	81.7
115°	587.3	604.7	630.2	157.3	83.8
117.5°	647.6	668.0	685.4	539.3	271.7
120°	715.0	730.3	748.7	761.0	623.1
122.5°	772.2	788.6	809.0	815.1	816.2
125°	830.5	843.7	863.1	870.3	873.4
127.5°	883.6	897.9	913.2	923.4	924.4
130°	933.6	950.0	961.2	972.4	971.4
132.5°	984.7	998.0	1009.2	1018.4	1017.4
135°	1027.6	1043.9	1053.1	1063.3	1061.3
137.5°	1072.5	1084.8	1095.0	1105.2	1102.2
140°	1116.5	1124.6	1135.9	1145.1	1140.0
142.5°	1153.2	1160.4	1173.7	1181.8	1176.7
145°	1192.1	1191.0	1208.4	1215.5	1210.4
147.5°	1225.8	1222.7	1240.1	1245.2	1241.1
150°	1258.4	1251.3	1267.6	1273.8	1268.7
152.5°	1286.0	1277.9	1293.2	1299.3	1292.2
155°	1312.6	1303.4	1315.7	1321.8	1313.6
157.5°	1334.0	1325.9	1335.1	1342.2	1334.0
160°	1352.4	1346.3	1352.4	1358.6	1351.4
162.5°	1368.8	1362.6	1367.7	1374.9	1365.7
165°	1383.1	1376.9	1380.0	1387.2	1380.0
167.5°	1394.3	1388.2	1391.2	1398.4	1389.2
170°	1403.5	1397.4	1399.4	1406.6	1397.4
172.5°	1409.6	1403.5	1405.5	1412.7	1403.5
175°	1414.7	1407.6	1409.6	1416.8	1406.6
177.5°	1416.8	1409.6	1410.6	1417.8	1408.6
180°	1411.7	1411.7	1411.7	1411.7	1411.7

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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	8.44	9.09	9.61	10.24	11.87	9.22	9.87	10.39	11.02	12.65
	3H	9.76	10.34	10.93	11.50	13.15	10.83	11.41	12.00	12.57	14.21
	4H	10.15	10.71	11.34	11.87	13.52	11.41	11.96	12.59	13.13	14.77
	6H	10.36	10.87	11.55	12.04	13.69	11.80	12.31	12.99	13.48	15.13
	8H	10.39	10.87	11.58	12.05	13.70	11.90	12.39	13.10	13.57	15.22
	12H	10.37	10.83	11.57	12.00	13.67	11.94	12.40	13.14	13.57	15.25
4H	2H	8.88	9.44	10.07	10.60	12.24	9.52	10.08	10.71	11.24	12.89
	3H	10.38	10.84	11.57	12.03	13.69	11.28	11.74	12.48	12.93	14.59
	4H	10.88	11.30	12.07	12.48	14.15	11.96	12.38	13.15	13.56	15.23
	6H	11.17	11.53	12.37	12.73	14.39	12.44	12.80	13.64	14.00	15.67
	8H	11.22	11.56	12.42	12.75	14.43	12.58	12.92	13.78	14.11	15.79
	12H	11.21	11.52	12.42	12.72	14.40	12.63	12.94	13.84	14.14	15.82
8H	4H	11.03	11.37	12.23	12.56	14.25	12.02	12.36	13.22	13.55	15.24
	6H	11.41	11.69	12.63	12.92	14.60	12.58	12.86	13.80	14.10	15.77
	8H	11.51	11.75	12.73	12.96	14.66	12.77	13.01	13.99	14.22	15.92
	12H	11.53	11.74	12.76	12.95	14.68	12.86	13.07	14.09	14.28	16.01
12H	4H	11.01	11.32	12.22	12.51	14.20	11.98	12.29	13.19	13.49	15.17
	6H	11.42	11.67	12.65	12.88	14.58	12.57	12.82	13.80	14.03	15.73
	8H	11.53	11.74	12.75	12.95	14.68	12.76	12.97	13.99	14.18	15.91