

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: P998988

Luminaire Tested: SA2XXDIP-B865D1080UB2750-4F0-XX-W2A-D_3500K

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998988
REPORT IS A COMBINATION OF REPORTS P984734 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B865D1080UB2750-4F0-XX-W2A-D_3500K
Description: Define 2 Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

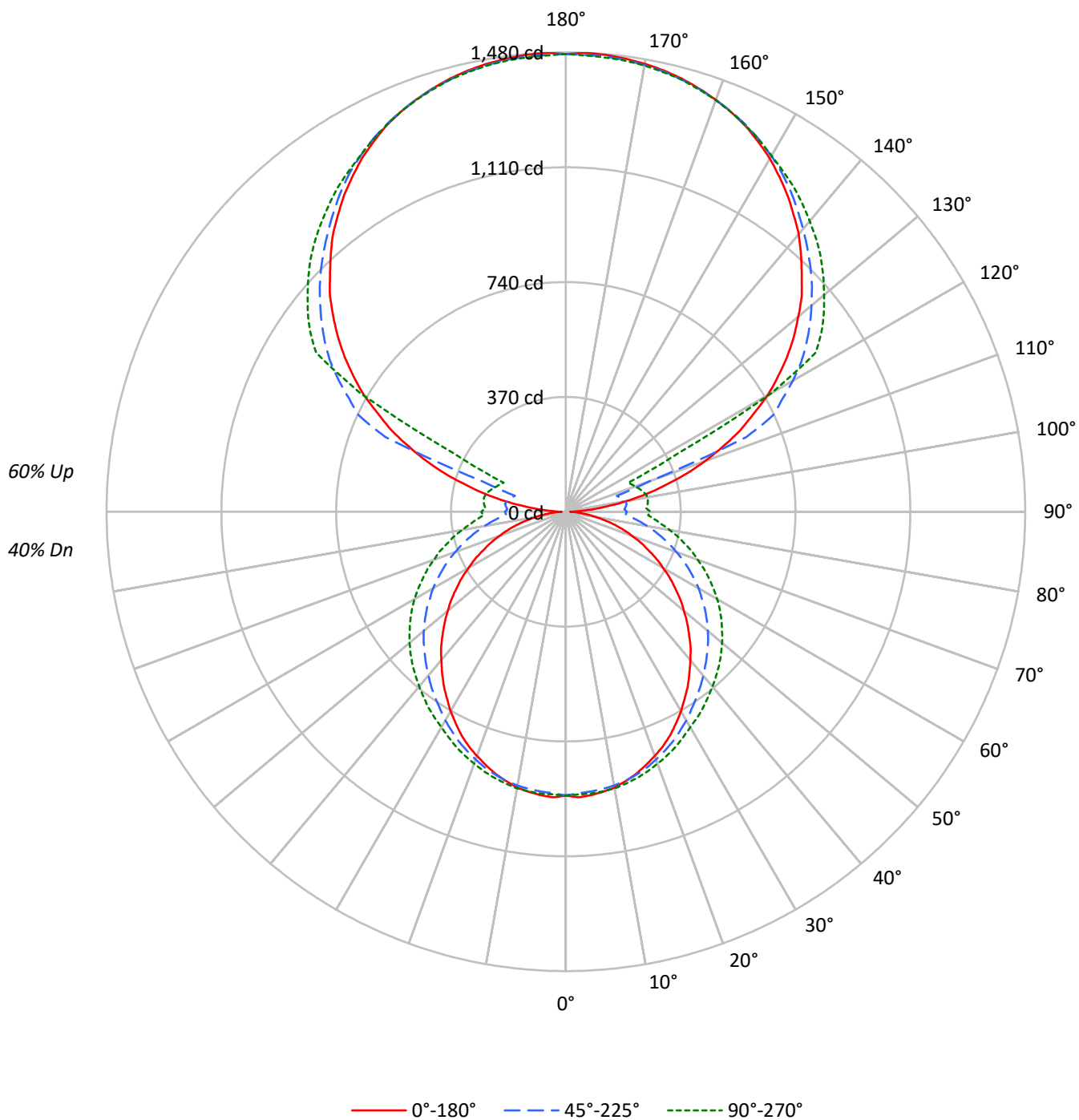
Lumens per Lamp: N/A
Luminaire Lumens: 7812.9 lumens
Efficiency: N/A
Efficacy: 95.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 81.8
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	105	105	105	105	95	95	95	95	78	78	78	61	61	61	47	47	47
1	94	90	85	81	85	81	78	74	66	64	61	52	50	49	39	38	37
2	85	77	71	65	77	70	65	60	57	53	50	45	42	40	34	32	30
3	78	68	60	54	70	62	55	50	50	45	41	39	36	33	30	27	25
4	71	60	51	45	64	54	47	42	44	39	35	35	31	28	26	24	21
5	65	53	45	38	58	48	41	35	39	34	30	31	27	24	24	21	18
6	59	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16
7	55	42	34	29	50	39	32	27	32	26	22	25	21	18	19	16	14
8	51	38	31	25	46	35	28	23	29	24	20	23	19	16	18	15	13
9	47	35	27	22	43	32	25	21	26	21	18	21	17	14	16	13	11
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14470	14470	14470
5°	14536	13853	13775
10°	14438	13373	13178
15°	14234	12876	12565
20°	13977	12355	11985
25°	13723	11856	11458
30°	13368	11348	10936
35°	13007	10860	10552
40°	12629	10437	10173
45°	12268	10054	9841
50°	11880	9701	9513
55°	11474	9326	9180
60°	10976	8935	8830
65°	10455	8485	8425
70°	9870	8002	7993
75°	9118	7519	7581
80°	7936	7018	7158
85°	6738	6544	6791

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 12268 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.7	1.1
10°-20°	248.5	3.2
20°-30°	376.6	4.8
30°-40°	458.6	5.9
40°-50°	493.4	6.3
50°-60°	479.2	6.1
60°-70°	418.5	5.4
70°-80°	322.1	4.1
80°-90°	218.3	2.8
90°-100°	197.4	2.5
100°-110°	289.9	3.7
110°-120°	552.4	7.1
120°-130°	837.2	10.7
130°-140°	863.6	11.1
140°-150°	789.9	10.1
150°-160°	632.7	8.1
160°-170°	407.7	5.2
170°-180°	140.3	1.8
0°-30°	711.8	9.1
0°-40°	1170.4	15.0
0°-60°	2142.9	27.4
0°-90°	3101.7	39.7
90°-120°	1039.8	13.3
90°-150°	3530.4	45.2
90°-180°	4711.0	60.3
0°-180°	7812.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	914	914	914	914	914	
5°	917	913	905	913	912	87
15°	874	877	877	889	888	246
25°	795	804	816	832	836	366
35°	685	708	733	762	771	428
45°	562	598	644	685	698	434
55°	431	478	547	595	612	385
65°	294	359	437	492	509	292
75°	163	237	322	379	396	172
85°	48	130	215	270	289	50
90°	14	103	196	255	273	13
95°	80	107	194	250	264	90
105°	331	401	179	237	256	354
115°	619	652	738	284	221	609
125°	870	884	946	990	1005	776
135°	1075	1092	1114	1153	1162	830
145°	1245	1244	1262	1278	1279	779
155°	1371	1361	1374	1380	1372	632
165°	1444	1438	1441	1449	1441	408
175°	1478	1470	1472	1480	1469	141
180°	1474	1474	1474	1474	1474	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	914.1	914.1	914.1	914.1	914.1
2.5°	920.8	916.8	907.5	914.1	911.5
5°	916.8	912.8	904.9	912.8	911.5
7.5°	910.2	907.5	900.9	910.2	908.8
10°	902.2	899.6	895.6	906.2	904.9
12.5°	889.0	890.3	887.6	898.2	896.9
15°	874.4	877.0	877.0	889.0	887.6
17.5°	855.8	861.1	865.1	877.0	877.0
20°	837.3	843.9	849.2	863.8	863.8
22.5°	817.4	825.4	833.3	847.9	850.5
25°	794.9	804.2	816.1	832.0	836.0
27.5°	768.4	783.0	796.2	816.1	818.7
30°	741.9	759.1	776.3	797.5	801.5
32.5°	712.8	732.6	753.8	779.0	786.9
35°	684.9	707.5	732.6	761.8	771.0
37.5°	654.5	679.6	711.4	743.2	752.5
40°	624.0	653.1	688.9	723.4	735.3
42.5°	594.8	624.0	666.4	704.8	716.7
45°	561.7	597.5	643.9	684.9	698.2
47.5°	529.9	568.4	621.3	663.7	678.3
50°	496.8	537.9	597.5	642.5	657.1
52.5°	465.0	508.7	572.3	618.7	634.6
55°	430.6	478.3	547.2	594.8	612.1
57.5°	397.4	450.4	519.3	571.0	588.2
60°	361.7	418.6	494.2	544.5	563.1
62.5°	329.9	389.5	465.0	519.3	536.6
65°	294.1	359.0	437.2	491.5	508.7
67.5°	262.3	329.9	409.4	463.7	482.2
70°	227.9	296.8	378.9	435.9	451.8
72.5°	196.1	267.6	351.1	406.7	426.6
75°	163.0	237.1	321.9	378.9	396.1
77.5°	131.2	208.0	294.1	351.1	369.6
80°	99.4	180.2	266.3	321.9	340.5
82.5°	72.9	152.4	239.8	295.4	312.7
85°	47.7	129.8	214.6	270.3	288.8
87.5°	29.1	108.6	193.4	247.7	265.0
90°	14.3	102.9	196.2	254.6	272.6
92.5°	38.6	104.5	188.6	242.3	259.3
95°	79.9	107.0	194.0	249.6	264.5
97.5°	134.1	103.5	197.5	249.7	266.7
100°	198.1	101.0	193.3	250.8	267.6
102.5°	267.1	308.8	186.1	245.6	263.4
105°	330.9	401.3	179.0	237.1	256.0
107.5°	406.7	465.1	171.9	228.6	247.5
110°	477.9	526.8	283.4	219.1	238.0

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	546.2	586.6	629.4	211.9	229.7
115°	618.7	651.5	737.7	283.5	221.3
117.5°	680.4	712.3	786.1	673.3	407.0
120°	750.8	772.1	844.3	894.2	764.7
122.5°	810.5	828.9	899.2	941.5	954.4
125°	870.0	883.8	946.5	989.8	1004.9
127.5°	925.4	939.1	990.9	1034.6	1047.6
130°	977.7	993.5	1033.0	1076.5	1086.1
132.5°	1031.0	1043.6	1075.3	1115.4	1124.9
135°	1074.6	1091.6	1114.5	1153.0	1161.5
137.5°	1121.5	1134.3	1151.6	1187.4	1193.5
140°	1167.4	1174.6	1188.9	1219.7	1222.4
142.5°	1205.8	1211.9	1225.8	1250.3	1251.5
145°	1245.0	1244.0	1262.1	1277.5	1278.8
147.5°	1280.2	1277.0	1295.2	1301.8	1301.5
150°	1314.4	1306.9	1324.0	1330.4	1325.0
152.5°	1343.2	1334.6	1350.6	1357.0	1349.6
155°	1370.9	1361.3	1374.1	1380.5	1372.0
157.5°	1393.3	1384.8	1394.4	1401.8	1393.3
160°	1412.5	1406.1	1412.5	1418.9	1411.4
162.5°	1429.6	1423.2	1428.5	1436.0	1426.4
165°	1444.5	1438.1	1441.3	1448.8	1441.3
167.5°	1456.3	1449.9	1453.1	1460.5	1450.9
170°	1465.9	1459.5	1461.6	1469.1	1459.5
172.5°	1472.3	1465.9	1468.0	1475.5	1465.9
175°	1477.6	1470.1	1472.3	1479.7	1469.1
177.5°	1479.7	1472.3	1473.3	1480.8	1471.2
180°	1474.4	1474.4	1474.4	1474.4	1474.4

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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	13.47	14.29	14.50	15.33	16.74	16.55	17.36	17.58	18.41	19.81
	3H	14.93	15.67	15.97	16.72	18.15	19.14	19.87	20.18	20.92	22.35
	4H	15.41	16.10	16.46	17.16	18.59	20.39	21.09	21.44	22.14	23.57
	6H	15.69	16.33	16.75	17.39	18.84	21.68	22.33	22.74	23.39	24.83
	8H	15.74	16.36	16.81	17.44	18.88	22.34	22.96	23.41	24.03	25.47
	12H	15.76	16.35	16.83	17.42	18.88	23.06	23.65	24.13	24.72	26.18
4H	2H	14.52	15.22	15.58	16.27	17.71	16.87	17.57	17.93	18.63	20.06
	3H	16.22	16.81	17.29	17.90	19.34	19.66	20.25	20.73	21.34	22.78
	4H	16.84	17.39	17.92	18.46	19.93	21.08	21.62	22.15	22.69	24.16
	6H	17.26	17.73	18.34	18.83	20.29	22.54	23.02	23.62	24.11	25.57
	8H	17.36	17.81	18.44	18.90	20.37	23.30	23.74	24.38	24.83	26.31
	12H	17.41	17.81	18.50	18.91	20.39	24.13	24.53	25.22	25.63	27.11
8H	4H	17.63	18.07	18.71	19.16	20.64	21.22	21.66	22.30	22.75	24.23
	6H	18.26	18.63	19.36	19.76	21.24	22.84	23.22	23.95	24.35	25.82
	8H	18.48	18.81	19.59	19.92	21.42	23.73	24.06	24.84	25.17	26.67
	12H	18.61	18.90	19.73	20.01	21.54	24.73	25.02	25.84	26.12	27.65
12H	4H	17.83	18.23	18.93	19.33	20.81	21.19	21.59	22.29	22.69	24.18
	6H	18.60	18.92	19.70	20.04	21.53	22.87	23.20	23.98	24.31	25.80
	8H	18.90	19.19	20.01	20.30	21.83	23.80	24.09	24.91	25.19	26.72