

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: P998987

Luminaire Tested: SA2XXDIP-B865D1080UB2750-4F0-XX-W2A-D_3000K

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998987
REPORT IS A COMBINATION OF REPORTS P984733 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_3000K
Description: Define 2 Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

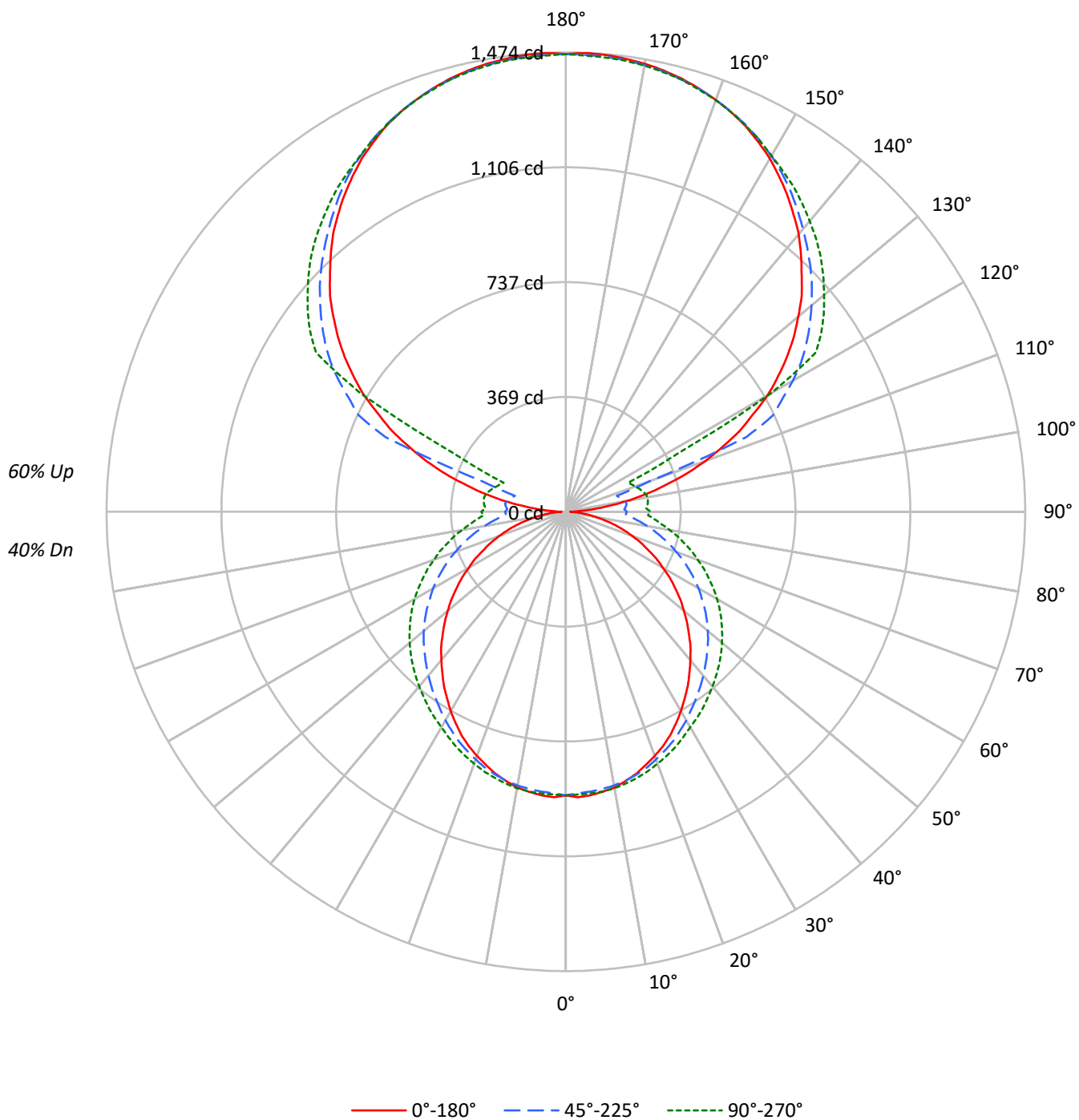
Lumens per Lamp: N/A
Luminaire Lumens: 7780.0 lumens
Efficiency: N/A
Efficacy: 95.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

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°	14408	14408	14408
5°	14473	13793	13716
10°	14375	13315	13121
15°	14172	12822	12511
20°	13917	12303	11934
25°	13665	11806	11409
30°	13310	11300	10889
35°	12952	10814	10507
40°	12575	10392	10129
45°	12215	10011	9799
50°	11830	9659	9472
55°	11423	9285	9140
60°	10927	8895	8791
65°	10409	8448	8389
70°	9826	7969	7957
75°	9079	7486	7549
80°	7896	6986	7127
85°	6710	6516	6763

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 12215 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.3	1.1
10°-20°	247.5	3.2
20°-30°	375.0	4.8
30°-40°	456.6	5.9
40°-50°	491.3	6.3
50°-60°	477.1	6.1
60°-70°	416.7	5.4
70°-80°	320.7	4.1
80°-90°	217.4	2.8
90°-100°	196.6	2.5
100°-110°	288.7	3.7
110°-120°	550.1	7.1
120°-130°	833.7	10.7
130°-140°	860.0	11.1
140°-150°	786.6	10.1
150°-160°	630.1	8.1
160°-170°	406.0	5.2
170°-180°	139.7	1.8
0°-30°	708.7	9.1
0°-40°	1165.3	15.0
0°-60°	2133.7	27.4
0°-90°	3088.4	39.7
90°-120°	1035.4	13.3
90°-150°	3515.7	45.2
90°-180°	4692.0	60.3
0°-180°	7780.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	910	910	910	910	910	
5°	913	909	901	909	908	87
15°	871	873	873	885	884	245
25°	792	801	813	828	832	364
35°	682	704	730	758	768	426
45°	559	595	641	682	695	432
55°	429	476	545	592	609	383
65°	293	358	435	489	506	291
75°	162	236	320	377	394	172
85°	48	129	214	269	288	50
90°	14	102	195	254	271	13
95°	80	107	193	248	263	90
105°	330	400	178	236	255	353
115°	616	649	735	282	220	606
125°	866	880	943	986	1001	773
135°	1070	1087	1110	1148	1157	827
145°	1240	1239	1257	1272	1274	776
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°	910.2	910.2	910.2	910.2	910.2
2.5°	916.8	912.8	903.6	910.2	907.6
5°	912.8	908.9	901.0	908.9	907.6
7.5°	906.2	903.6	897.0	906.2	904.9
10°	898.3	895.7	891.7	902.3	901.0
12.5°	885.1	886.5	883.8	894.4	893.1
15°	870.6	873.3	873.3	885.1	883.8
17.5°	852.2	857.4	861.4	873.3	873.3
20°	833.7	840.3	845.6	860.1	860.1
22.5°	813.9	821.8	829.7	844.2	846.9
25°	791.5	800.7	812.6	828.4	832.4
27.5°	765.1	779.6	792.8	812.6	815.2
30°	738.7	755.9	773.0	794.1	798.1
32.5°	709.7	729.5	750.6	775.6	783.6
35°	682.0	704.4	729.5	758.5	767.7
37.5°	651.6	676.7	708.4	740.0	749.3
40°	621.3	650.3	685.9	720.2	732.1
42.5°	592.3	621.3	663.5	701.8	713.6
45°	559.3	594.9	641.1	682.0	695.2
47.5°	527.7	565.9	618.7	660.9	675.4
50°	494.7	535.6	594.9	639.8	654.3
52.5°	463.0	506.5	569.9	616.0	631.9
55°	428.7	476.2	544.8	592.3	609.4
57.5°	395.7	448.5	517.1	568.5	585.7
60°	360.1	416.8	492.0	542.2	560.6
62.5°	328.5	387.8	463.0	517.1	534.2
65°	292.8	357.5	435.3	489.4	506.5
67.5°	261.2	328.5	407.6	461.7	480.2
70°	226.9	295.5	377.3	434.0	449.8
72.5°	195.2	266.5	349.6	405.0	424.8
75°	162.3	236.1	320.5	377.3	394.4
77.5°	130.6	207.1	292.8	349.6	368.0
80°	98.9	179.4	265.1	320.5	339.0
82.5°	72.6	151.7	238.8	294.2	311.3
85°	47.5	129.3	213.7	269.1	287.6
87.5°	29.0	108.2	192.6	246.7	263.8
90°	14.3	102.4	195.3	253.5	271.4
92.5°	38.5	104.1	187.8	241.3	258.2
95°	79.7	106.6	193.1	248.5	263.4
97.5°	133.5	103.2	196.7	248.7	265.5
100°	197.2	100.5	192.5	249.8	266.4
102.5°	266.1	307.4	185.4	244.6	262.3
105°	329.6	399.7	178.2	236.1	254.8
107.5°	405.0	463.3	171.1	227.7	246.5
110°	475.9	524.7	282.2	218.2	236.9

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	543.9	584.2	626.8	211.1	228.8
115°	616.2	648.7	734.6	282.3	220.3
117.5°	677.6	709.3	782.8	670.5	405.3
120°	747.7	768.8	840.8	890.4	761.5
122.5°	807.2	825.5	895.5	937.5	950.5
125°	866.3	880.2	942.6	985.7	1000.7
127.5°	921.6	935.2	986.7	1030.3	1043.3
130°	973.6	989.3	1028.7	1072.1	1081.6
132.5°	1026.8	1039.3	1070.8	1110.6	1120.2
135°	1070.1	1087.1	1109.8	1148.2	1156.6
137.5°	1116.8	1129.6	1146.8	1182.5	1188.5
140°	1162.5	1169.7	1184.0	1214.7	1217.4
142.5°	1200.8	1206.9	1220.7	1245.0	1246.3
145°	1239.8	1238.8	1256.8	1272.2	1273.5
147.5°	1274.9	1271.7	1289.8	1296.4	1296.1
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	13.46	14.27	14.49	15.32	16.72	16.53	17.35	17.57	18.39	19.80
	3H	14.92	15.65	15.96	16.70	18.13	19.12	19.85	20.16	20.91	22.33
	4H	15.39	16.09	16.44	17.14	18.58	20.37	21.07	21.42	22.13	23.56
	6H	15.67	16.32	16.73	17.38	18.82	21.67	22.31	22.73	23.37	24.82
	8H	15.73	16.35	16.80	17.42	18.86	22.32	22.94	23.39	24.02	25.46
	12H	15.74	16.33	16.82	17.40	18.87	23.05	23.63	24.12	24.70	26.17
4H	2H	14.50	15.20	15.56	16.26	17.69	16.86	17.56	17.92	18.61	20.05
	3H	16.21	16.80	17.27	17.88	19.33	19.65	20.24	20.71	21.32	22.77
	4H	16.83	17.37	17.90	18.45	19.91	21.06	21.61	22.13	22.68	24.15
	6H	17.24	17.71	18.32	18.81	20.27	22.53	23.00	23.61	24.10	25.56
	8H	17.35	17.79	18.43	18.88	20.36	23.28	23.73	24.36	24.81	26.29
	12H	17.39	17.79	18.49	18.90	20.38	24.11	24.51	25.21	25.61	27.10
8H	4H	17.62	18.06	18.70	19.15	20.62	21.20	21.65	22.28	22.73	24.21
	6H	18.25	18.62	19.35	19.75	21.22	22.83	23.20	23.93	24.33	25.80
	8H	18.47	18.80	19.58	19.91	21.40	23.72	24.05	24.83	25.16	26.65
	12H	18.60	18.89	19.71	20.00	21.53	24.71	25.00	25.82	26.11	27.64
12H	4H	17.81	18.21	18.91	19.32	20.80	21.17	21.58	22.27	22.68	24.16
	6H	18.58	18.91	19.69	20.02	21.51	22.85	23.18	23.96	24.29	25.79
	8H	18.88	19.17	20.00	20.28	21.81	23.78	24.07	24.89	25.18	26.71