

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: P998678

Luminaire Tested: SA2XXDIP-B675D1080UB27-4F0-XX-W2A-D

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998678
REPORT IS A COMBINATION OF REPORTS P984421 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B675D1080UB27-4F0-XX-W2A-D
Description: Define 2 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

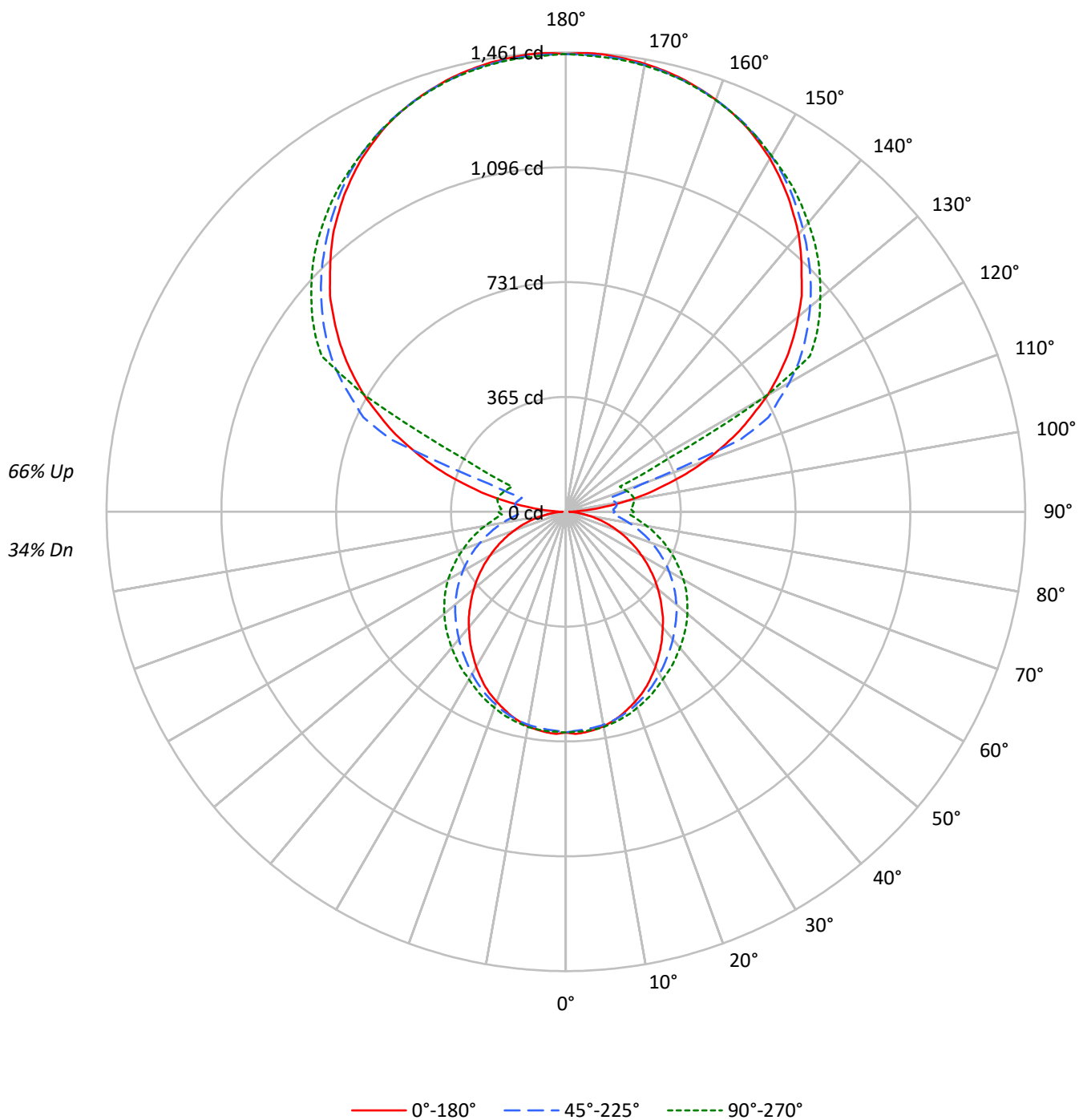
Lumens per Lamp: N/A
Luminaire Lumens: 6949.0 lumens
Efficiency: N/A
Efficacy: 98.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 70.9
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	103	103	103	103	93	93	93	93	75	75	75	57	57	57	42	42	42
1	93	89	84	81	84	80	76	73	64	61	59	49	47	46	35	34	33
2	84	77	70	65	76	69	64	59	55	51	48	42	40	37	30	29	27
3	77	67	60	54	69	61	54	49	48	44	40	37	34	31	27	24	23
4	70	59	51	45	63	53	46	41	43	38	34	33	29	26	24	21	19
5	64	52	44	38	57	47	40	35	38	33	29	29	25	22	21	19	16
6	59	47	39	33	53	42	35	30	34	29	25	26	22	19	19	16	14
7	54	42	34	28	49	38	31	26	31	25	22	24	20	17	17	15	13
8	50	38	30	25	45	34	28	23	28	23	19	22	18	15	16	13	11
9	47	35	27	22	42	31	25	20	25	20	17	20	16	13	15	12	10
10	44	32	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11114	11114	11114
5°	11164	10640	10580
10°	11090	10272	10121
15°	10933	9890	9652
20°	10735	9489	9204
25°	10540	9106	8801
30°	10267	8717	8399
35°	9991	8341	8105
40°	9701	8016	7813
45°	9422	7722	7558
50°	9125	7451	7307
55°	8812	7162	7051
60°	8430	6861	6782
65°	8031	6517	6471
70°	7579	6146	6139
75°	7004	5777	5822
80°	6092	5389	5498
85°	5170	5025	5216

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9422 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.6	1.0
10°-20°	190.9	2.7
20°-30°	289.2	4.2
30°-40°	352.2	5.1
40°-50°	379.0	5.5
50°-60°	368.0	5.3
60°-70°	321.4	4.6
70°-80°	247.4	3.6
80°-90°	168.2	2.4
90°-100°	162.3	2.3
100°-110°	262.4	3.8
110°-120°	529.7	7.6
120°-130°	817.8	11.8
130°-140°	848.9	12.2
140°-150°	779.2	11.2
150°-160°	624.7	9.0
160°-170°	402.5	5.8
170°-180°	138.5	2.0
0°-30°	546.7	7.9
0°-40°	898.9	12.9
0°-60°	1645.9	23.7
0°-90°	2382.9	34.3
90°-120°	954.4	13.7
90°-150°	3400.3	48.9
90°-180°	4566.0	65.7
0°-180°	6949.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	702	702	702	702	702	
5°	704	701	695	701	700	67
15°	672	674	674	683	682	189
25°	610	618	627	639	642	281
35°	526	543	563	585	592	329
45°	431	459	494	526	536	333
55°	331	367	420	457	470	296
65°	226	276	336	378	391	224
75°	125	182	247	291	304	132
85°	37	100	165	208	222	39
90°	11	82	155	201	216	11
95°	77	90	158	202	213	87
105°	325	386	152	199	214	348
115°	610	639	711	254	189	600
125°	858	872	925	960	972	766
135°	1061	1078	1097	1129	1135	820
145°	1229	1228	1246	1260	1259	769
155°	1354	1344	1357	1363	1354	624
165°	1426	1420	1423	1430	1423	403
175°	1459	1451	1454	1461	1450	139
180°	1456	1456	1456	1456	1456	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	702.1	702.1	702.1	702.1	702.1
2.5°	707.2	704.1	697.0	702.1	700.1
5°	704.1	701.1	695.0	701.1	700.1
7.5°	699.1	697.0	691.9	699.1	698.0
10°	693.0	690.9	687.9	696.0	695.0
12.5°	682.8	683.8	681.8	689.9	688.9
15°	671.6	673.6	673.6	682.8	681.8
17.5°	657.3	661.4	664.5	673.6	673.6
20°	643.1	648.2	652.2	663.4	663.4
22.5°	627.8	633.9	640.0	651.2	653.3
25°	610.5	617.7	626.8	639.0	642.1
27.5°	590.2	601.4	611.5	626.8	628.8
30°	569.8	583.1	596.3	612.6	615.6
32.5°	547.4	562.7	579.0	598.3	604.4
35°	526.1	543.4	562.7	585.1	592.2
37.5°	502.7	522.0	546.4	570.8	578.0
40°	479.3	501.7	529.1	555.6	564.7
42.5°	456.9	479.3	511.8	541.3	550.5
45°	431.4	458.9	494.5	526.1	536.2
47.5°	407.0	436.5	477.2	509.8	521.0
50°	381.6	413.1	458.9	493.5	504.7
52.5°	357.2	390.7	439.6	475.2	487.4
55°	330.7	367.3	420.2	456.9	470.1
57.5°	305.3	346.0	398.9	438.6	451.8
60°	277.8	321.5	379.5	418.2	432.5
62.5°	253.4	299.2	357.2	398.9	412.1
65°	225.9	275.8	335.8	377.5	390.7
67.5°	201.5	253.4	314.4	356.1	370.4
70°	175.0	227.9	291.0	334.8	347.0
72.5°	150.6	205.5	269.7	312.4	327.7
75°	125.2	182.1	247.3	291.0	304.2
77.5°	100.7	159.8	225.9	269.7	283.9
80°	76.3	138.4	204.5	247.3	261.5
82.5°	56.0	117.0	184.2	226.9	240.1
85°	36.6	99.7	164.8	207.6	221.8
87.5°	22.4	83.4	148.6	190.3	203.5
90°	11.3	81.8	155.4	201.3	215.6
92.5°	35.5	85.2	150.5	192.2	205.5
95°	76.6	89.7	158.1	202.0	213.2
97.5°	130.3	87.8	163.6	204.4	217.7
100°	193.5	86.9	161.8	207.9	221.2
102.5°	262.0	293.5	156.7	205.0	219.4
105°	325.3	386.4	151.8	198.9	214.3
107.5°	400.1	450.8	146.8	192.9	208.4
110°	470.7	513.1	258.6	185.8	201.2

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	538.1	573.4	602.3	180.8	195.2
115°	609.7	638.8	711.0	253.8	189.2
117.5°	670.9	700.1	760.7	640.6	374.8
120°	740.4	760.2	819.9	861.0	730.0
122.5°	799.4	817.2	875.9	909.7	920.0
125°	858.3	872.0	924.6	959.5	971.8
127.5°	913.1	926.8	970.1	1006.1	1016.3
130°	964.7	980.6	1013.5	1049.5	1056.6
132.5°	1017.4	1030.1	1056.9	1089.8	1096.9
135°	1060.6	1077.5	1097.1	1129.1	1135.1
137.5°	1107.0	1119.6	1135.2	1165.1	1169.1
140°	1152.2	1159.7	1173.3	1199.0	1199.9
142.5°	1190.2	1196.5	1210.2	1230.9	1230.7
145°	1229.2	1228.1	1246.0	1259.5	1259.3
147.5°	1263.9	1260.8	1278.7	1285.0	1283.8
150°	1297.7	1290.3	1307.1	1313.5	1308.2
152.5°	1326.1	1317.7	1333.5	1339.8	1332.4
155°	1353.5	1344.0	1356.6	1363.0	1354.5
157.5°	1375.6	1367.2	1376.6	1384.0	1375.6
160°	1394.6	1388.2	1394.6	1400.9	1393.5
162.5°	1411.4	1405.1	1410.4	1417.7	1408.2
165°	1426.2	1419.8	1423.0	1430.4	1423.0
167.5°	1437.7	1431.4	1434.6	1442.0	1432.5
170°	1447.2	1440.9	1443.0	1450.4	1440.9
172.5°	1453.5	1447.2	1449.3	1456.7	1447.2
175°	1458.8	1451.4	1453.5	1460.9	1450.4
177.5°	1460.9	1453.5	1454.6	1462.0	1452.5
180°	1455.6	1455.6	1455.6	1455.6	1455.6

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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	11.94	12.71	13.01	13.79	15.26	15.02	15.78	16.09	16.86	18.34
	3H	13.39	14.09	14.48	15.17	16.67	17.60	18.29	18.68	19.38	20.87
	4H	13.87	14.52	14.96	15.61	17.11	18.85	19.51	19.94	20.60	22.09
	6H	14.15	14.75	15.25	15.85	17.36	20.14	20.75	21.24	21.84	23.35
	8H	14.20	14.78	15.31	15.89	17.40	20.80	21.38	21.90	22.49	23.99
	12H	14.22	14.77	15.33	15.87	17.40	21.52	22.07	22.63	23.17	24.70
4H	2H	12.98	13.64	14.08	14.73	16.23	15.34	15.99	16.43	17.08	18.58
	3H	14.68	15.24	15.79	16.35	17.86	18.12	18.68	19.22	19.79	21.30
	4H	15.30	15.81	16.41	16.92	18.45	19.53	20.05	20.64	21.15	22.68
	6H	15.71	16.15	16.83	17.28	18.81	21.00	21.44	22.11	22.57	24.09
	8H	15.82	16.23	16.93	17.35	18.89	21.75	22.17	22.87	23.29	24.83
	12H	15.85	16.23	16.99	17.37	18.91	22.57	22.95	23.71	24.09	25.63
8H	4H	16.08	16.50	17.20	17.62	19.16	19.67	20.09	20.79	21.21	22.75
	6H	16.71	17.06	17.85	18.22	19.76	21.29	21.64	22.43	22.80	24.34
	8H	16.93	17.24	18.08	18.38	19.94	22.18	22.49	23.33	23.63	25.19
	12H	17.06	17.33	18.21	18.47	20.06	23.17	23.44	24.32	24.58	26.17
12H	4H	16.28	16.65	17.41	17.79	19.33	19.64	20.02	20.77	21.15	22.70
	6H	17.04	17.35	18.19	18.49	20.05	21.32	21.62	22.46	22.77	24.32
	8H	17.34	17.61	18.49	18.75	20.34	22.24	22.51	23.39	23.65	25.24