

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: P930435

Luminaire Tested: DFN2DS-PN2F0-030DS830-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930435
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333812)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-PN2F0-030DS830-FLL
Description: 2 foot, Pentagon Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

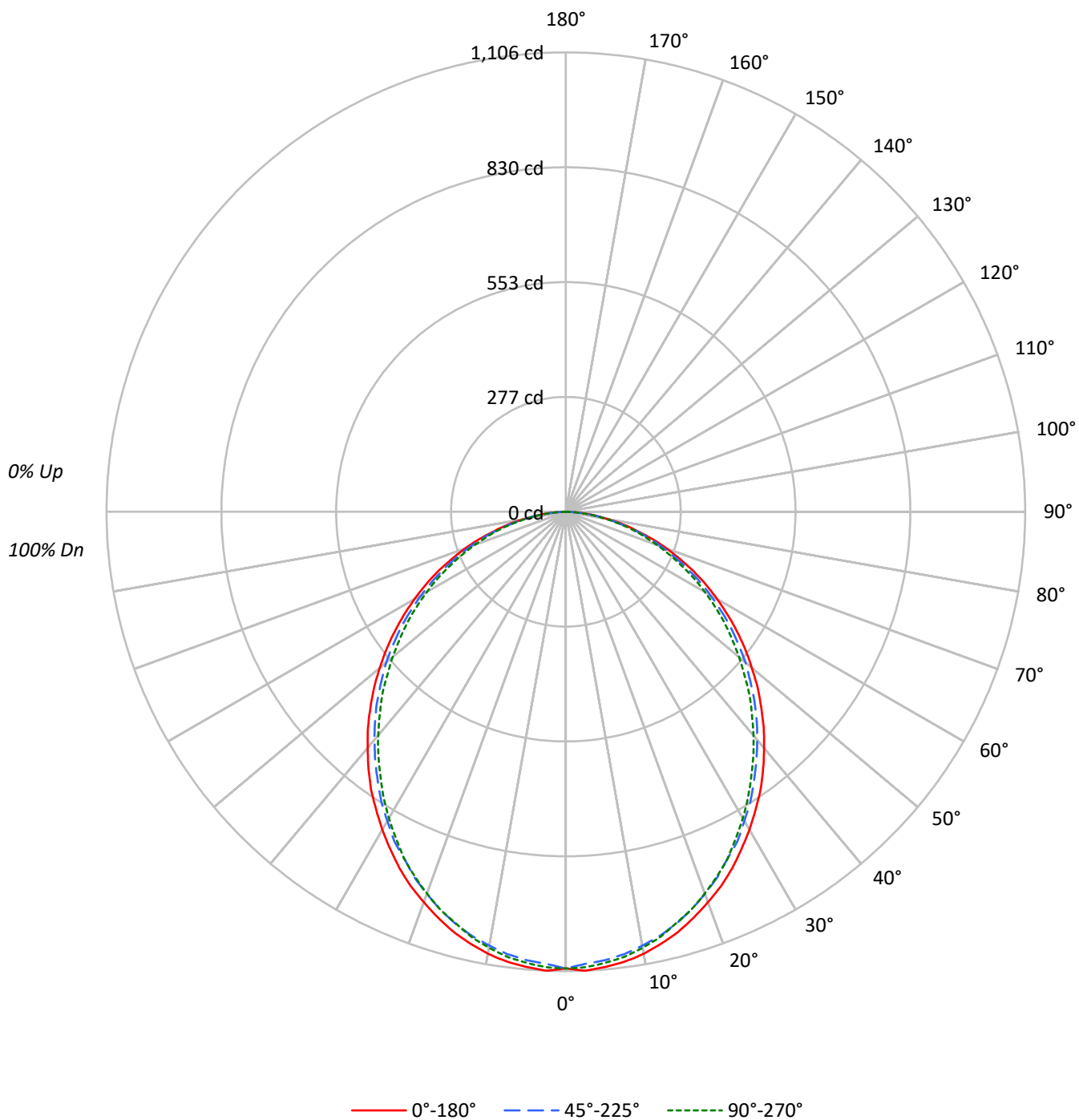
Lumens per Lamp: N/A
Luminaire Lumens: 2797.8 lumens
Efficiency: N/A
Efficacy: 90.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 2.29' x L: 2.17' x H: 0')
CIE Type: Direct

Input Watts (W): 30.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9972
Total Harmonic Distortion (THDi): 0.128
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P930435

CATALOG NUMBER: DFN2DS-PN2F0-030DS830-FLL

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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90
2	99	91	85	79	97	89	83	78	86	81	76		83	78	74		80
3	91	80	72	66	88	79	71	65	76	69	64		73	68	63		71
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63
5	77	64	55	49	75	63	55	48	61	53	48		59	52	47		57
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		44
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40
10	54	41	33	28	53	40	33	28	39	32	27		38	32	27		37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2382	2382	2382
5°	2391	2356	2370
10°	2377	2333	2344
15°	2347	2302	2300
20°	2305	2257	2254
25°	2264	2201	2201
30°	2211	2150	2131
35°	2161	2089	2058
40°	2099	2027	1988
45°	2037	1966	1917
50°	1970	1902	1835
55°	1901	1829	1761
60°	1823	1741	1677
65°	1740	1653	1577
70°	1634	1547	1474
75°	1486	1424	1390
80°	1320	1278	1214
85°	1076	1026	919

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2037 cd/sqm

TEST NUMBER: P930435

CATALOG NUMBER: DFN2DS-PN2F0-030DS830-FLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.5	3.7
10°-20°	291.2	10.4
20°-30°	427.9	15.3
30°-40°	497.0	17.8
40°-50°	496.4	17.7
50°-60°	432.9	15.5
60°-70°	320.0	11.4
70°-80°	181.1	6.5
80°-90°	47.8	1.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	822.6	29.4
0°-40°	1319.7	47.2
0°-60°	2249.0	80.4
0°-90°	2797.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2797.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1100	1100	1100	1100	1100	
5°	1100	1096	1084	1092	1090	104
15°	1047	1040	1027	1031	1026	295
25°	947	939	921	923	921	436
35°	817	807	790	784	778	510
45°	665	658	642	630	626	513
55°	503	497	484	472	466	450
65°	340	333	322	313	308	336
75°	178	176	170	164	166	190
85°	43	42	41	38	37	51
90°	0	0	0	0	0	

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CATALOG NUMBER: DFN2DS-PN2F0-030DS830-FLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1099.6	1099.6	1099.6	1099.6	1099.6
2.5°	1106.0	1100.7	1089.0	1099.6	1097.6
5°	1099.6	1095.5	1083.8	1092.2	1090.2
7.5°	1092.2	1085.9	1074.3	1082.8	1080.7
10°	1080.7	1073.2	1060.6	1069.0	1065.9
12.5°	1064.7	1058.4	1045.8	1051.0	1048.9
15°	1046.8	1040.5	1026.7	1030.9	1025.6
17.5°	1024.5	1018.3	1004.5	1009.7	1004.5
20°	1000.2	993.9	979.1	982.2	978.1
22.5°	976.0	966.5	952.6	952.6	950.5
25°	947.4	939.0	921.0	923.1	921.0
27.5°	915.6	908.2	894.5	891.4	886.1
30°	884.0	875.5	859.7	856.5	852.2
32.5°	850.2	843.8	826.9	820.5	816.2
35°	817.4	806.8	789.9	783.5	778.2
37.5°	780.4	770.8	753.9	746.4	741.2
40°	742.3	733.8	716.9	707.4	703.2
42.5°	705.3	696.8	679.9	669.3	663.0
45°	665.1	657.7	641.8	630.2	626.0
47.5°	626.0	618.6	601.7	590.0	583.7
50°	584.7	579.4	564.6	549.8	544.6
52.5°	544.6	537.1	523.5	511.8	504.3
55°	503.4	497.0	484.3	471.7	466.4
57.5°	462.1	456.8	443.0	430.3	426.1
60°	420.8	416.6	401.9	390.2	387.1
62.5°	380.7	373.2	362.7	352.1	347.9
65°	339.5	333.1	322.5	313.0	307.8
67.5°	297.2	291.8	282.3	275.0	270.7
70°	258.0	253.8	244.3	236.8	232.7
72.5°	217.9	213.6	208.3	200.9	197.8
75°	177.6	175.6	170.2	163.9	166.1
77.5°	141.7	137.4	135.3	132.2	129.1
80°	105.8	104.7	102.5	99.4	97.3
82.5°	71.9	71.9	70.9	66.6	66.6
85°	43.3	42.3	41.3	38.1	37.0
87.5°	19.0	17.0	14.8	11.7	10.6
90°	0.0	0.0	0.0	0.0	0.0

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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	14.30	15.91	14.66	16.22	16.54	13.85	15.46	14.22	15.78	16.09
	3H	16.05	17.50	16.42	17.83	18.19	15.56	17.01	15.93	17.34	17.70
	4H	16.69	18.06	17.09	18.41	18.79	16.20	17.57	16.60	17.92	18.29
	6H	17.16	18.43	17.57	18.80	19.19	16.66	17.93	17.07	18.30	18.69
	8H	17.31	18.52	17.73	18.91	19.31	16.80	18.01	17.23	18.40	18.80
	12H	17.40	18.56	17.83	18.94	19.37	16.88	18.04	17.31	18.43	18.86
4H	2H	14.86	16.23	15.26	16.57	16.95	14.50	15.87	14.90	16.22	16.60
	3H	16.83	17.98	17.24	18.38	18.78	16.43	17.57	16.84	17.97	18.37
	4H	17.61	18.65	18.04	19.06	19.50	17.19	18.22	17.62	18.64	19.07
	6H	18.21	19.11	18.66	19.55	20.01	17.77	18.68	18.23	19.12	19.58
	8H	18.40	19.24	18.86	19.68	20.15	17.96	18.80	18.42	19.25	19.71
	12H	18.53	19.29	19.01	19.76	20.23	18.08	18.84	18.56	19.31	19.78
8H	4H	17.88	18.73	18.34	19.17	19.64	17.51	18.36	17.97	18.80	19.26
	6H	18.60	19.30	19.09	19.79	20.26	18.22	18.92	18.71	19.41	19.88
	8H	18.86	19.49	19.37	19.99	20.48	18.47	19.10	18.97	19.60	20.09
	12H	19.06	19.61	19.56	20.10	20.67	18.64	19.20	19.15	19.69	20.25
12H	4H	17.91	18.67	18.39	19.14	19.61	17.54	18.30	18.02	18.78	19.25
	6H	18.64	19.27	19.15	19.78	20.27	18.27	18.91	18.78	19.41	19.90
	8H	18.96	19.51	19.46	20.01	20.57	18.58	19.14	19.09	19.63	20.19