

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: P930795

Luminaire Tested: DFN2DS-SQ2F0-030DS830-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930795
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-SQ2F0-030DS830-FLL
Description: 2 foot, Square Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

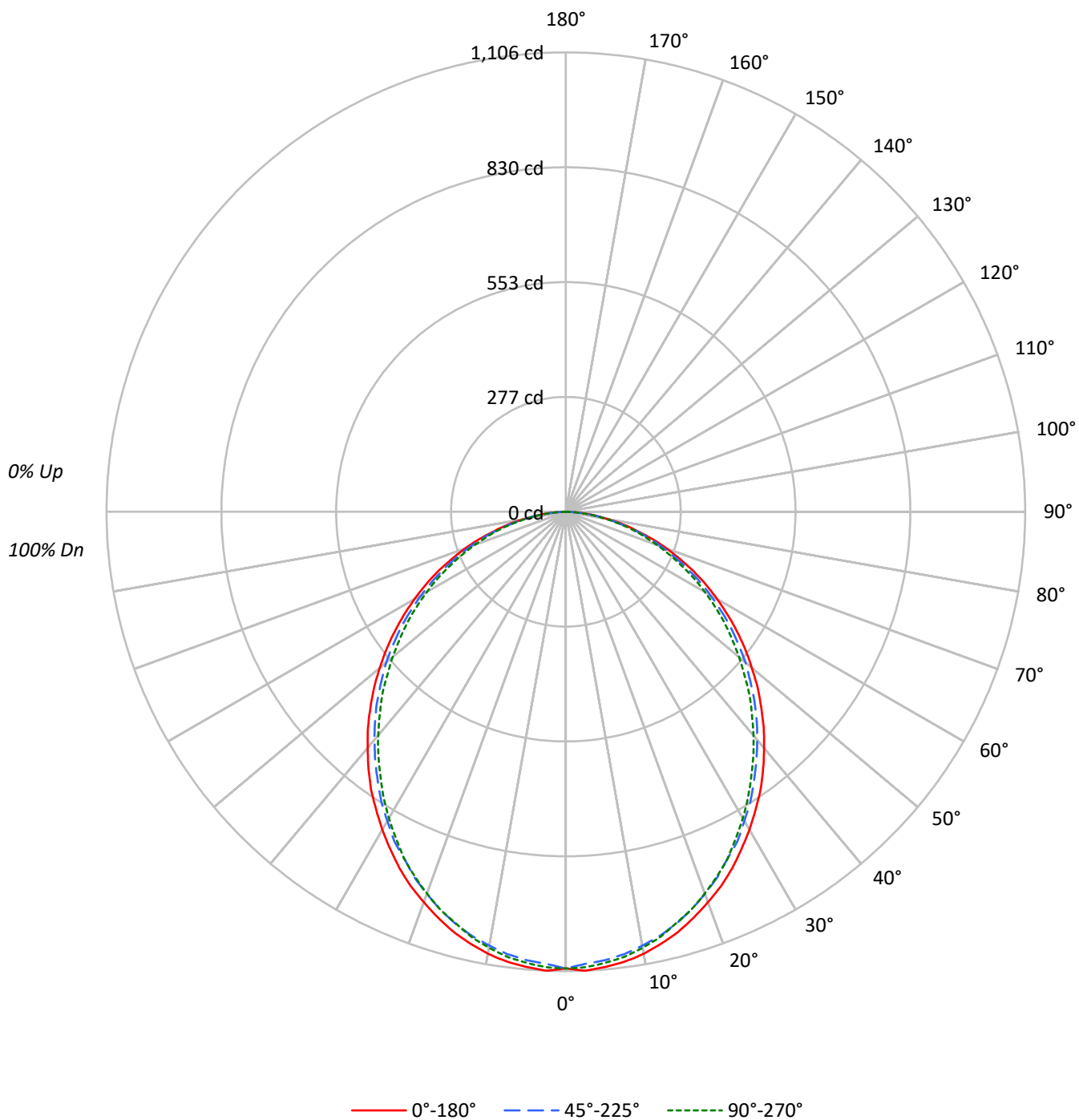
Lumens per Lamp: N/A
Luminaire Lumens: 2797.8 lumens
Efficiency: N/A
Efficacy: 104.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 2.21' x L: 2.21' x H: 0')
CIE Type: Direct

Input Watts (W): 26.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9963
Total Harmonic Distortion (THDi): 0.065
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P930795

CATALOG NUMBER: DFN2DS-SQ2F0-030DS830-FLL

Luminous Intensity Polar Plot



TEST NUMBER: P930795

CATALOG NUMBER: DFN2DS-SQ2F0-030DS830-FLL

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°	2418	2418	2418
5°	2427	2392	2406
10°	2413	2368	2380
15°	2383	2337	2335
20°	2340	2291	2289
25°	2299	2235	2235
30°	2245	2183	2164
35°	2194	2120	2089
40°	2131	2058	2018
45°	2068	1996	1947
50°	2000	1931	1863
55°	1930	1857	1788
60°	1851	1767	1702
65°	1766	1678	1601
70°	1659	1571	1496
75°	1509	1446	1411
80°	1340	1298	1232
85°	1092	1042	933

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 2068 cd/sqm

TEST NUMBER: P930795

CATALOG NUMBER: DFN2DS-SQ2F0-030DS830-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	

TEST NUMBER: P930795

CATALOG NUMBER: DFN2DS-SQ2F0-030DS830-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

TEST NUMBER: P930795

CATALOG NUMBER: DFN2DS-SQ2F0-030DS830-FLL

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	14.35	15.96	14.71	16.27	16.59	13.91	15.52	14.27	15.83	16.14
	3H	16.10	17.55	16.48	17.88	18.24	15.61	17.06	15.99	17.39	17.75
	4H	16.75	18.12	17.15	18.46	18.84	16.25	17.62	16.65	17.97	18.34
	6H	17.22	18.48	17.63	18.85	19.24	16.71	17.98	17.13	18.35	18.74
	8H	17.36	18.57	17.78	18.96	19.36	16.86	18.07	17.28	18.46	18.86
	12H	17.45	18.61	17.88	18.99	19.42	16.94	18.10	17.37	18.48	18.91
4H	2H	14.91	16.28	15.31	16.63	17.00	14.56	15.93	14.96	16.27	16.65
	3H	16.89	18.03	17.30	18.43	18.83	16.48	17.63	16.89	18.02	18.42
	4H	17.66	18.70	18.09	19.11	19.55	17.24	18.27	17.67	18.69	19.12
	6H	18.26	19.16	18.71	19.60	20.06	17.83	18.73	18.28	19.17	19.63
	8H	18.45	19.29	18.91	19.74	20.20	18.01	18.86	18.47	19.30	19.76
	12H	18.58	19.34	19.06	19.82	20.29	18.13	18.89	18.61	19.36	19.83
8H	4H	17.94	18.78	18.40	19.22	19.69	17.56	18.41	18.02	18.85	19.32
	6H	18.65	19.35	19.14	19.84	20.32	18.27	18.97	18.76	19.46	19.94
	8H	18.91	19.54	19.42	20.05	20.53	18.52	19.15	19.03	19.66	20.14
	12H	19.11	19.67	19.62	20.16	20.72	18.70	19.25	19.20	19.74	20.31
12H	4H	17.96	18.72	18.44	19.20	19.67	17.60	18.36	18.08	18.83	19.30
	6H	18.70	19.33	19.20	19.83	20.32	18.33	18.96	18.84	19.47	19.95
	8H	19.01	19.57	19.52	20.06	20.62	18.63	19.19	19.14	19.68	20.24