

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: P931403

Luminaire Tested: DFN2DS-TR3F0-070DS940-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931403
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-TR3F0-070DS940-FLL
Description: 3 foot, Triangle Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

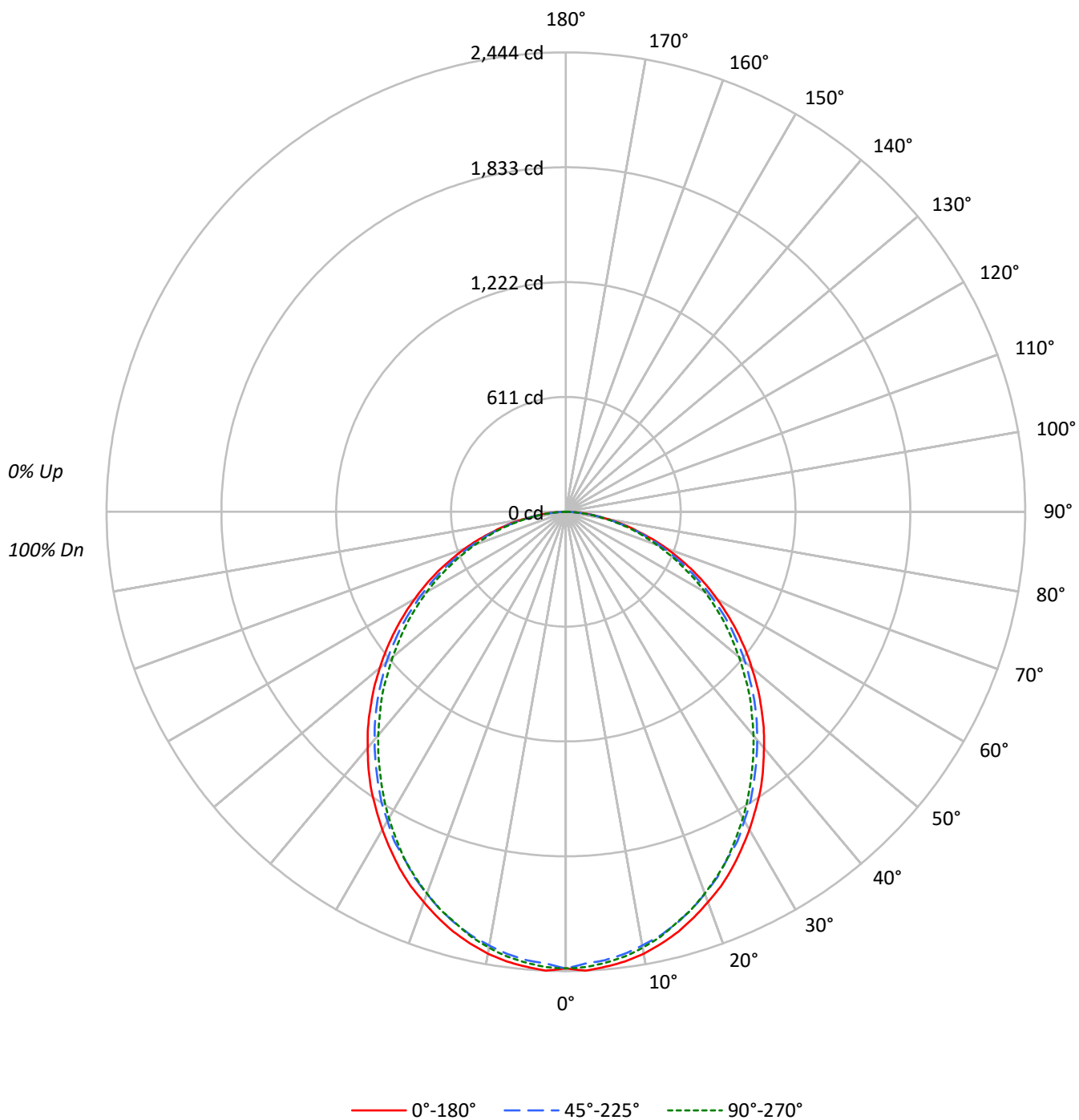
Lumens per Lamp: N/A
Luminaire Lumens: 6181.6 lumens
Efficiency: N/A
Efficacy: 83.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.16' x L: 2.74' x H: 0')
CIE Type: Direct

Input Watts (W): 74.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9971
Total Harmonic Distortion (THDi): 0.049
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P931403

CATALOG NUMBER: DFN2DS-TR3F0-070DS940-FLL

Luminous Intensity Polar Plot



TEST NUMBER: P931403

CATALOG NUMBER: DFN2DS-TR3F0-070DS940-FLL

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20			
RC	80				70				50				30				10			0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76		83	78	74		80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64		73	68	63		71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63	58	54	51
5	77	64	55	49	75	63	55	48	61	53	48		59	52	47		57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		44	38	33	31
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	27		38	32	27		37	32	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3027	3027	3027
5°	3039	2995	3013
10°	3021	2965	2980
15°	2984	2926	2924
20°	2931	2869	2866
25°	2878	2798	2798
30°	2810	2733	2709
35°	2747	2655	2616
40°	2668	2576	2527
45°	2590	2499	2437
50°	2504	2418	2332
55°	2416	2325	2238
60°	2317	2213	2131
65°	2212	2101	2005
70°	2077	1966	1873
75°	1889	1810	1766
80°	1677	1626	1542
85°	1368	1305	1170

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2590 cd/sqm

TEST NUMBER: P931403

CATALOG NUMBER: DFN2DS-TR3F0-070DS940-FLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	228.7	3.7
10°-20°	643.4	10.4
20°-30°	945.5	15.3
30°-40°	1098.2	17.8
40°-50°	1096.8	17.7
50°-60°	956.4	15.5
60°-70°	707.0	11.4
70°-80°	400.0	6.5
80°-90°	105.6	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°	1817.6	29.4
0°-40°	2915.8	47.2
0°-60°	4969.0	80.4
0°-90°	6181.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6181.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2430	2430	2430	2430	2430	
5°	2430	2420	2395	2413	2409	231
15°	2313	2299	2268	2278	2266	651
25°	2093	2075	2035	2040	2035	963
35°	1806	1783	1745	1731	1719	1128
45°	1470	1453	1418	1392	1383	1134
55°	1112	1098	1070	1042	1030	994
65°	750	736	713	692	680	742
75°	392	388	376	362	367	419
85°	96	94	91	84	82	112
90°	0	0	0	0	0	

TEST NUMBER: P931403

CATALOG NUMBER: DFN2DS-TR3F0-070DS940-FLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2429.5	2429.5	2429.5	2429.5	2429.5
2.5°	2443.7	2432.0	2406.3	2429.5	2425.1
5°	2429.5	2420.4	2394.7	2413.2	2408.8
7.5°	2413.2	2399.3	2373.5	2392.4	2387.7
10°	2387.7	2371.3	2343.3	2361.9	2355.0
12.5°	2352.5	2338.6	2310.6	2322.2	2317.5
15°	2312.9	2299.0	2268.4	2277.9	2266.2
17.5°	2263.7	2249.9	2219.4	2231.1	2219.4
20°	2209.9	2196.1	2163.4	2170.3	2161.1
22.5°	2156.4	2135.4	2104.9	2104.9	2100.1
25°	2093.3	2074.6	2035.0	2039.5	2035.0
27.5°	2023.1	2006.7	1976.5	1969.5	1957.9
30°	1953.2	1934.3	1899.4	1892.5	1883.0
32.5°	1878.3	1864.5	1827.0	1812.9	1803.4
35°	1805.9	1782.7	1745.2	1731.1	1719.4
37.5°	1724.1	1703.1	1665.6	1649.3	1637.6
40°	1640.1	1621.3	1583.8	1563.1	1553.6
42.5°	1558.3	1539.5	1502.3	1478.8	1464.8
45°	1469.6	1453.2	1418.0	1392.5	1383.0
47.5°	1383.0	1366.7	1329.3	1303.5	1289.7
50°	1291.9	1280.2	1247.5	1214.8	1203.1
52.5°	1203.1	1186.8	1156.6	1130.8	1114.4
55°	1112.1	1098.1	1070.0	1042.0	1030.3
57.5°	1021.0	1009.3	978.8	950.8	941.4
60°	929.7	920.5	887.9	862.1	855.2
62.5°	841.0	824.7	801.4	778.1	768.6
65°	750.1	735.9	712.6	691.6	679.9
67.5°	656.6	644.7	623.9	607.5	598.1
70°	570.1	560.7	539.6	523.2	514.1
72.5°	481.3	472.0	460.3	443.9	437.0
75°	392.4	387.9	376.0	362.2	366.9
77.5°	313.1	303.6	298.9	292.0	285.1
80°	233.7	231.3	226.6	219.6	214.9
82.5°	158.9	158.9	156.6	147.3	147.3
85°	95.7	93.5	91.3	84.0	81.8
87.5°	42.1	37.5	32.7	25.8	23.3
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P931403

CATALOG NUMBER: DFN2DS-TR3F0-070DS940-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	15.13	16.74	15.50	17.06	17.37	14.69	16.30	15.05	16.61	16.93
	3H	16.88	18.34	17.26	18.66	19.02	16.39	17.84	16.77	18.17	18.53
	4H	17.53	18.90	17.93	19.24	19.62	17.03	18.40	17.43	18.75	19.13
	6H	18.00	19.27	18.41	19.63	20.02	17.50	18.76	17.91	19.13	19.52
	8H	18.14	19.35	18.56	19.74	20.14	17.64	18.85	18.06	19.24	19.64
	12H	18.23	19.39	18.66	19.77	20.20	17.72	18.88	18.15	19.26	19.69
4H	2H	15.69	17.06	16.09	17.41	17.78	15.34	16.71	15.74	17.06	17.43
	3H	17.67	18.81	18.08	19.21	19.61	17.26	18.41	17.67	18.80	19.20
	4H	18.44	19.48	18.87	19.89	20.33	18.02	19.06	18.45	19.47	19.91
	6H	19.04	19.94	19.49	20.39	20.84	18.61	19.51	19.06	19.95	20.41
	8H	19.23	20.08	19.69	20.52	20.98	18.79	19.64	19.25	20.08	20.55
	12H	19.36	20.12	19.84	20.60	21.07	18.91	19.67	19.39	20.15	20.61
8H	4H	18.72	19.56	19.18	20.01	20.47	18.34	19.19	18.80	19.63	20.10
	6H	19.43	20.13	19.92	20.62	21.10	19.05	19.75	19.54	20.24	20.72
	8H	19.69	20.32	20.20	20.83	21.31	19.30	19.93	19.81	20.44	20.92
	12H	19.89	20.45	20.40	20.94	21.50	19.48	20.03	19.98	20.53	21.09
12H	4H	18.74	19.50	19.22	19.98	20.45	18.38	19.14	18.86	19.61	20.08
	6H	19.48	20.11	19.99	20.62	21.10	19.11	19.74	19.62	20.25	20.73
	8H	19.79	20.35	20.30	20.84	21.40	19.41	19.97	19.92	20.46	21.02