

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: P931301

Luminaire Tested: DFN2DS-TR2F0-060DS835-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931301
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-TR2F0-060DS835-FLL
Description: 2 foot, Triangle Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

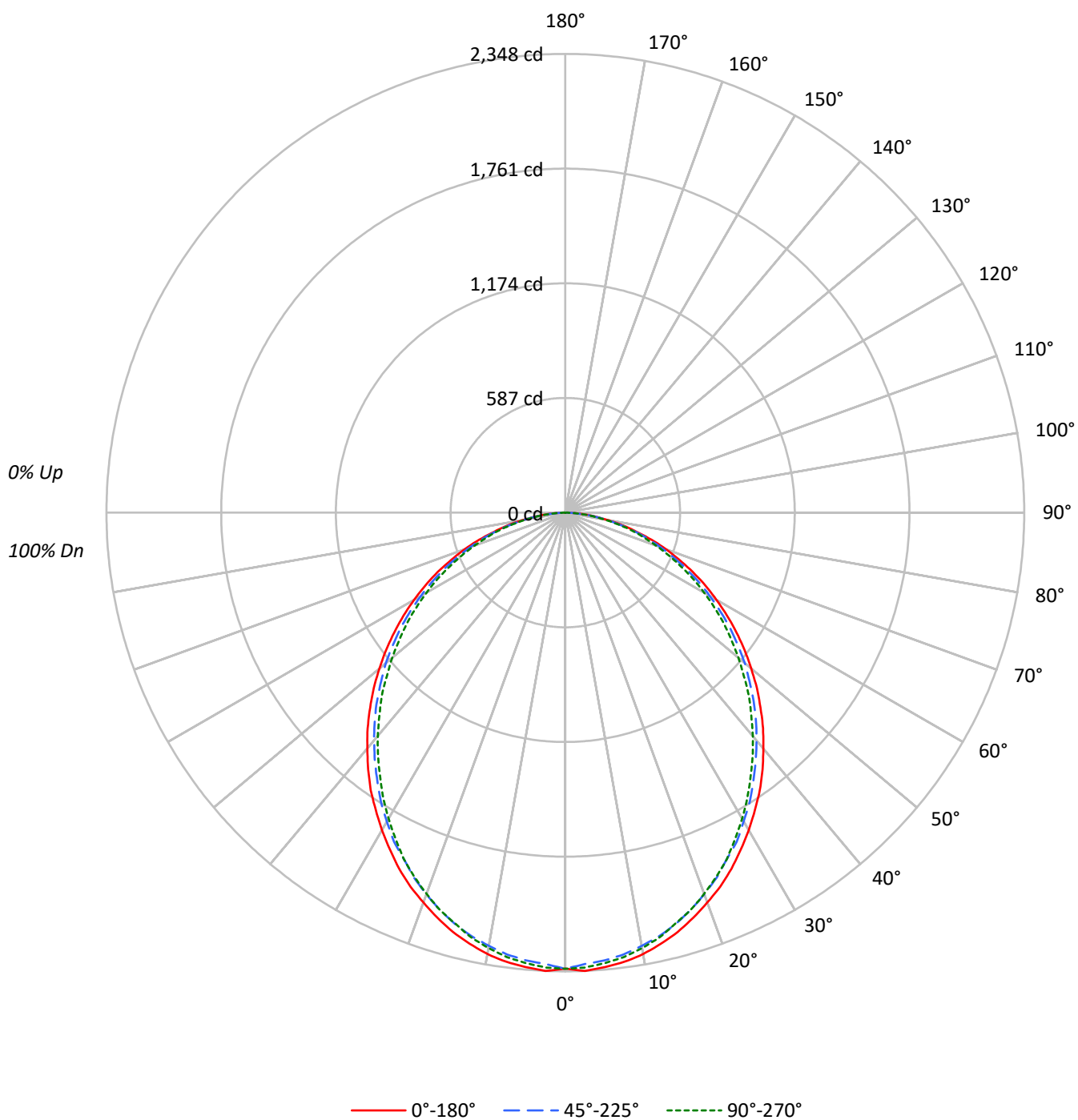
Lumens per Lamp: N/A
Luminaire Lumens: 5940.0 lumens
Efficiency: N/A
Efficacy: 96.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 2.36' x L: 2.04' x H: 0')
CIE Type: Direct

Input Watts (W): 61.8
Input Voltage (V): 120
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: P931301

CATALOG NUMBER: DFN2DS-TR2F0-060DS835-FLL

Luminous Intensity Polar Plot



TEST NUMBER: P931301

CATALOG NUMBER: DFN2DS-TR2F0-060DS835-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°	5207	5207	5207
5°	5227	5152	5182
10°	5196	5100	5125
15°	5132	5033	5029
20°	5041	4934	4929
25°	4950	4812	4812
30°	4834	4701	4660
35°	4725	4566	4499
40°	4589	4431	4347
45°	4455	4298	4192
50°	4308	4160	4012
55°	4156	3998	3850
60°	3985	3806	3665
65°	3804	3614	3448
70°	3572	3381	3222
75°	3249	3114	3038
80°	2885	2796	2652
85°	2352	2242	2011

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4455 cd/sqm

TEST NUMBER: P931301

CATALOG NUMBER: DFN2DS-TR2F0-060DS835-FLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.7	3.7
10°-20°	618.3	10.4
20°-30°	908.6	15.3
30°-40°	1055.3	17.8
40°-50°	1054.0	17.7
50°-60°	919.0	15.5
60°-70°	679.4	11.4
70°-80°	384.4	6.5
80°-90°	101.4	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°	1746.6	29.4
0°-40°	2801.8	47.2
0°-60°	4774.8	80.4
0°-90°	5940.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5940.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2335	2335	2335	2335	2335	
5°	2335	2326	2301	2319	2315	222
15°	2222	2209	2180	2189	2178	626
25°	2011	1994	1955	1960	1955	926
35°	1735	1713	1677	1663	1652	1084
45°	1412	1396	1363	1338	1329	1090
55°	1069	1055	1028	1001	990	955
65°	721	707	685	664	653	713
75°	377	373	361	348	352	402
85°	92	90	88	81	79	108
90°	0	0	0	0	0	

TEST NUMBER: P931301

CATALOG NUMBER: DFN2DS-TR2F0-060DS835-FLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2334.6	2334.6	2334.6	2334.6	2334.6
2.5°	2348.2	2337.0	2312.2	2334.6	2330.3
5°	2334.6	2325.8	2301.0	2318.9	2314.6
7.5°	2318.9	2305.6	2280.8	2298.9	2294.4
10°	2294.4	2278.7	2251.7	2269.6	2262.9
12.5°	2260.6	2247.2	2220.3	2231.5	2227.0
15°	2222.4	2209.1	2179.8	2188.9	2177.7
17.5°	2175.3	2162.0	2132.7	2143.8	2132.7
20°	2123.6	2110.3	2078.8	2085.5	2076.7
22.5°	2072.2	2051.9	2022.6	2022.6	2018.1
25°	2011.4	1993.6	1955.4	1959.7	1955.4
27.5°	1944.0	1928.3	1899.2	1892.6	1881.4
30°	1876.9	1858.7	1825.2	1818.5	1809.4
32.5°	1804.9	1791.6	1755.6	1742.0	1733.0
35°	1735.4	1713.0	1677.0	1663.4	1652.2
37.5°	1656.8	1636.5	1600.6	1584.8	1573.6
40°	1576.0	1557.9	1522.0	1502.0	1492.9
42.5°	1497.4	1479.3	1443.6	1421.0	1407.6
45°	1412.2	1396.4	1362.6	1338.1	1329.0
47.5°	1329.0	1313.3	1277.4	1252.6	1239.2
50°	1241.4	1230.2	1198.8	1167.3	1156.1
52.5°	1156.1	1140.4	1111.3	1086.6	1070.9
55°	1068.7	1055.1	1028.2	1001.3	990.1
57.5°	981.1	969.9	940.6	913.7	904.6
60°	893.4	884.6	853.2	828.4	821.7
62.5°	808.1	792.4	770.0	747.6	738.6
65°	720.7	707.2	684.8	664.5	653.3
67.5°	630.9	619.5	599.5	583.8	574.7
70°	547.8	538.8	518.5	502.8	494.0
72.5°	462.5	453.5	442.3	426.6	419.9
75°	377.0	372.8	361.3	348.0	352.5
77.5°	300.8	291.8	287.2	280.6	273.9
80°	224.6	222.2	217.7	211.0	206.5
82.5°	152.7	152.7	150.5	141.5	141.5
85°	91.9	89.8	87.6	80.7	78.6
87.5°	40.5	36.0	31.4	24.8	22.4
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P931301

CATALOG NUMBER: DFN2DS-TR2F0-060DS835-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	17.02	18.63	17.38	18.94	19.25	16.57	18.18	16.94	18.50	18.81
	3H	18.77	20.22	19.14	20.55	20.91	18.27	19.73	18.65	20.06	20.42
	4H	19.41	20.78	19.81	21.13	21.50	18.92	20.29	19.32	20.63	21.01
	6H	19.88	21.15	20.29	21.51	21.91	19.38	20.65	19.79	21.01	21.40
	8H	20.02	21.23	20.45	21.62	22.02	19.52	20.73	19.95	21.12	21.52
	12H	20.11	21.27	20.54	21.66	22.08	19.60	20.76	20.03	21.14	21.57
4H	2H	17.58	18.95	17.97	19.29	19.67	17.22	18.59	17.62	18.94	19.32
	3H	19.55	20.70	19.96	21.10	21.50	19.14	20.29	19.55	20.69	21.09
	4H	20.33	21.36	20.76	21.78	22.21	19.90	20.94	20.34	21.35	21.79
	6H	20.92	21.83	21.38	22.27	22.73	20.49	21.40	20.95	21.84	22.29
	8H	21.11	21.96	21.57	22.40	22.87	20.68	21.52	21.14	21.96	22.43
	12H	21.25	22.01	21.73	22.48	22.95	20.79	21.55	21.27	22.03	22.50
8H	4H	20.60	21.45	21.06	21.89	22.36	20.23	21.07	20.69	21.52	21.98
	6H	21.32	22.02	21.81	22.51	22.98	20.93	21.64	21.43	22.13	22.60
	8H	21.57	22.21	22.08	22.71	23.20	21.18	21.81	21.69	22.32	22.81
	12H	21.77	22.33	22.28	22.82	23.38	21.36	21.92	21.87	22.41	22.97
12H	4H	20.63	21.39	21.11	21.86	22.33	20.26	21.02	20.74	21.50	21.97
	6H	21.36	21.99	21.87	22.50	22.99	20.99	21.62	21.50	22.13	22.62
	8H	21.67	22.23	22.18	22.72	23.28	21.30	21.85	21.80	22.34	22.91