

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: P931262

Luminaire Tested: DFN2DS-TR2F0-030DS950-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931262
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333882)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-TR2F0-030DS950-RLL
Description: 2 foot, Triangle Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

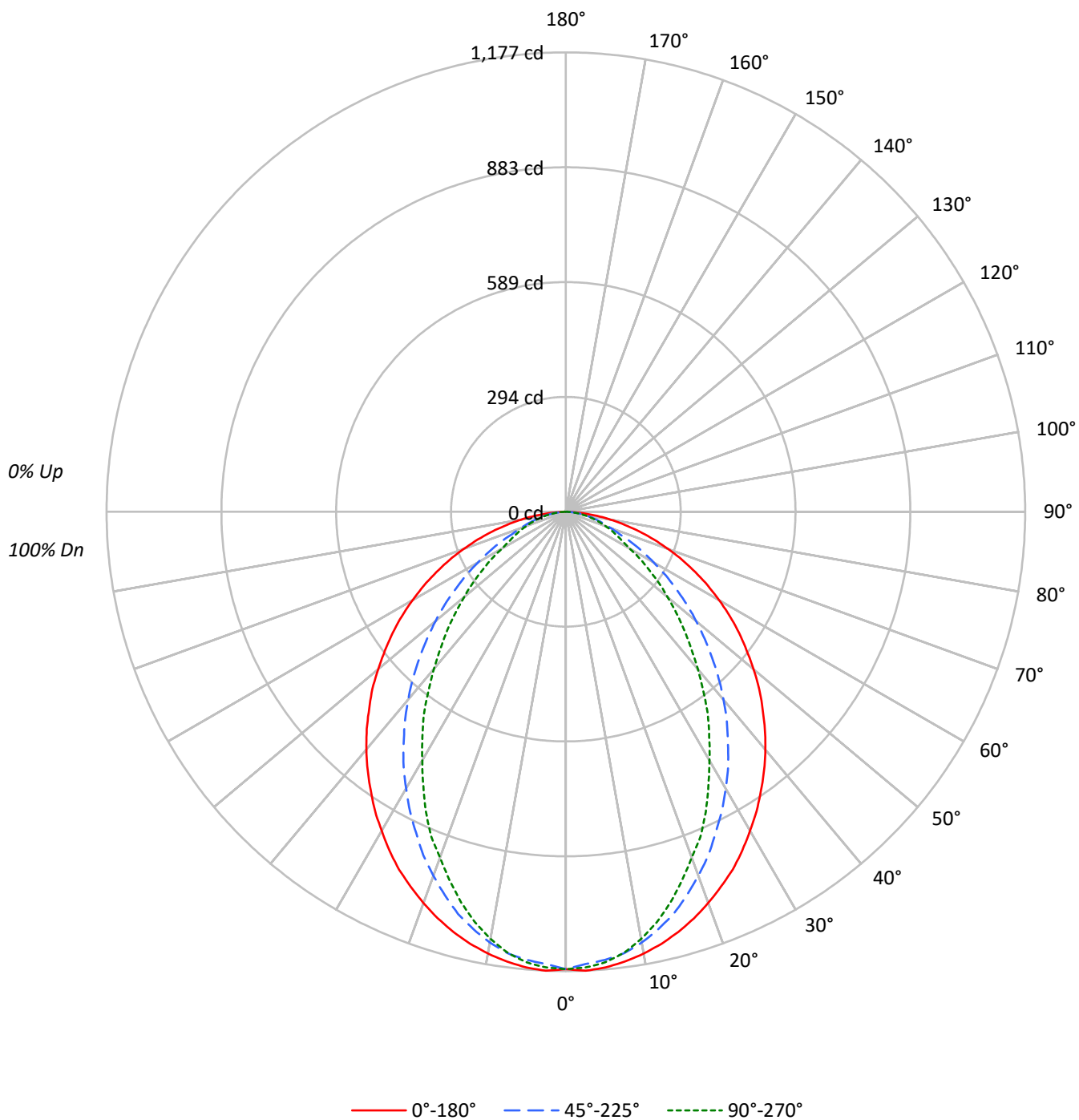
Lumens per Lamp: N/A
Luminaire Lumens: 2409.7 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 2.36' x L: 2.04' x H: 0')
CIE Type: Direct

Input Watts (W): 27.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9951
Total Harmonic Distortion (THDi): 0.07
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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	88	86	86
2	101	94	87	82	98	92	86	81	88	83	79	85	81	78	82	79	76	76	74	74
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	74	69	66	66	64	64
4	86	75	66	60	83	73	66	60	71	64	59	69	63	58	66	62	57	57	55	55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	51	49	49
6	74	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	45	43	43
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	41	39	39
8	64	51	43	38	62	51	43	37	49	42	37	48	42	37	47	41	37	37	35	35
9	60	47	39	34	59	47	39	34	46	39	34	44	38	34	44	38	34	34	32	32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	31	29	29

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2613	2613	2613
5°	2623	2581	2595
10°	2603	2539	2517
15°	2573	2463	2392
20°	2532	2356	2237
25°	2490	2234	2087
30°	2431	2108	1895
35°	2374	1972	1727
40°	2316	1831	1532
45°	2248	1672	1354
50°	2178	1512	1181
55°	2107	1340	1015
60°	2024	1159	842
65°	1931	974	766
70°	1819	801	705
75°	1680	732	658
80°	1485	653	600
85°	1164	514	514

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2248 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.8	4.6
10°-20°	301.5	12.5
20°-30°	423.2	17.6
30°-40°	461.4	19.1
40°-50°	424.0	17.6
50°-60°	333.0	13.8
60°-70°	216.8	9.0
70°-80°	111.6	4.6
80°-90°	28.5	1.2
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°	834.5	34.6
0°-40°	1295.9	53.8
0°-60°	2052.9	85.2
0°-90°	2409.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2409.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1172	1172	1172	1172	1172	
5°	1172	1166	1153	1162	1159	111
15°	1114	1103	1067	1047	1036	314
25°	1012	978	908	864	848	465
35°	872	818	724	657	634	546
45°	713	642	530	455	429	550
55°	542	459	344	281	261	484
65°	366	280	184	148	145	363
75°	195	121	85	77	76	206
85°	46	23	20	20	20	55
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1171.7	1171.7	1171.7	1171.7	1171.7
2.5°	1177.0	1171.7	1160.0	1170.7	1168.6
5°	1171.7	1166.4	1152.6	1162.2	1158.9
7.5°	1162.2	1155.8	1141.0	1145.2	1139.9
10°	1149.4	1142.0	1120.9	1117.6	1111.3
12.5°	1133.5	1124.0	1095.3	1089.0	1077.3
15°	1114.4	1102.7	1066.7	1046.6	1036.0
17.5°	1092.1	1075.2	1030.6	1007.4	990.4
20°	1066.7	1045.5	992.4	966.1	942.6
22.5°	1039.2	1014.7	953.2	917.2	901.3
25°	1011.6	977.6	907.7	864.2	848.2
27.5°	978.7	942.6	865.2	815.4	791.0
30°	943.8	903.4	818.6	764.6	735.9
32.5°	909.8	861.0	774.1	710.5	683.9
35°	871.7	817.5	724.2	657.4	634.1
37.5°	834.5	776.1	677.6	604.3	578.0
40°	795.3	731.7	628.8	553.5	526.0
42.5°	755.0	687.2	580.0	501.5	475.1
45°	712.6	641.5	530.2	454.8	429.4
47.5°	672.3	597.1	482.5	407.1	383.9
50°	627.8	552.4	435.8	362.6	340.4
52.5°	584.2	504.7	391.3	321.3	301.2
55°	541.8	459.1	344.5	281.0	260.9
57.5°	498.4	413.5	303.3	243.9	226.9
60°	453.8	369.0	259.8	205.7	188.8
62.5°	410.4	325.6	222.6	171.8	163.4
65°	365.8	279.9	184.5	148.5	145.2
67.5°	323.5	237.5	148.5	130.4	127.2
70°	278.9	196.2	122.9	112.4	108.1
72.5°	236.4	157.9	102.8	94.4	92.2
75°	195.0	120.9	84.9	77.4	76.4
77.5°	153.8	85.8	66.8	62.6	60.4
80°	115.6	61.5	50.8	46.7	46.7
82.5°	80.5	41.4	35.0	32.9	32.9
85°	45.5	23.2	20.1	20.1	20.1
87.5°	17.0	8.4	8.4	7.5	7.5
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	14.57	16.09	14.94	16.41	16.72	10.53	12.05	10.90	12.37	12.68
	3H	16.34	17.70	16.72	18.03	18.39	11.80	13.16	12.18	13.49	13.85
	4H	17.00	18.28	17.40	18.63	19.01	12.30	13.58	12.70	13.93	14.31
	6H	17.49	18.68	17.90	19.04	19.43	12.68	13.86	13.09	14.23	14.62
	8H	17.66	18.78	18.08	19.17	19.58	12.81	13.93	13.23	14.32	14.72
	12H	17.76	18.84	18.19	19.22	19.65	12.89	13.96	13.32	14.35	14.78
4H	2H	14.68	15.96	15.08	16.31	16.68	11.23	12.51	11.63	12.86	13.24
	3H	16.61	17.67	17.02	18.07	18.47	12.67	13.73	13.08	14.13	14.53
	4H	17.36	18.32	17.79	18.73	19.17	13.27	14.23	13.70	14.64	15.08
	6H	17.95	18.78	18.41	19.23	19.68	13.76	14.59	14.22	15.03	15.49
	8H	18.16	18.94	18.63	19.39	19.85	13.92	14.70	14.38	15.14	15.61
	12H	18.32	19.01	18.80	19.49	19.96	14.04	14.73	14.52	15.21	15.68
8H	4H	17.38	18.16	17.85	18.60	19.07	13.62	14.40	14.09	14.85	15.31
	6H	18.02	18.66	18.52	19.15	19.63	14.21	14.85	14.71	15.35	15.82
	8H	18.27	18.85	18.78	19.36	19.85	14.43	15.01	14.95	15.52	16.01
	12H	18.47	18.98	18.98	19.48	20.04	14.61	15.12	15.12	15.61	16.18
12H	4H	17.37	18.06	17.85	18.54	19.01	13.67	14.36	14.15	14.84	15.31
	6H	18.00	18.58	18.52	19.09	19.58	14.27	14.85	14.79	15.36	15.85
	8H	18.29	18.80	18.80	19.29	19.85	14.55	15.06	15.06	15.55	16.12