

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: P931409

Luminaire Tested: DFN2DS-TR3F0-080DS835-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931409
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-TR3F0-080DS835-FLL
Description: 3 foot, Triangle Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

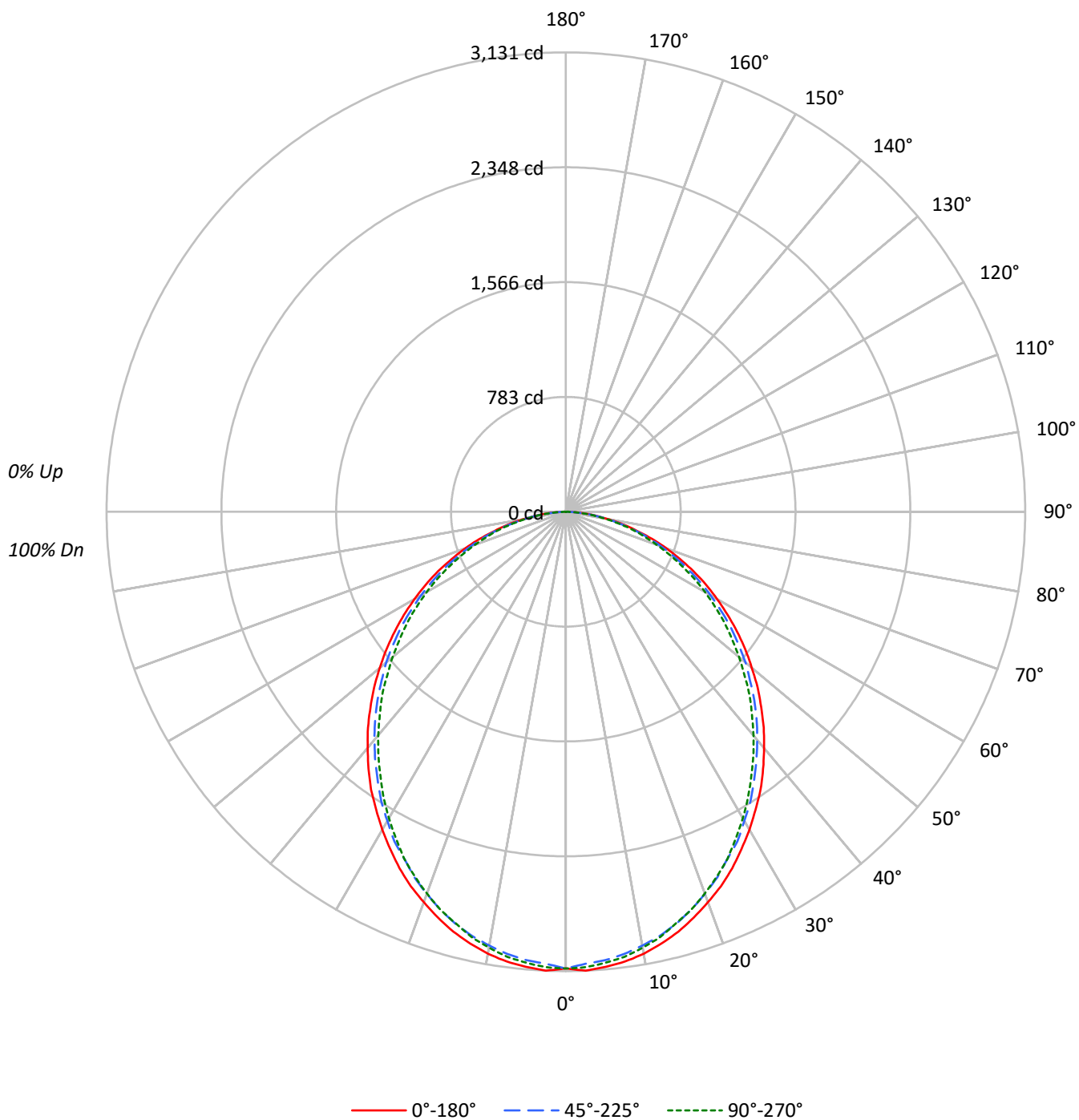
Lumens per Lamp: N/A
Luminaire Lumens: 7920.0 lumens
Efficiency: N/A
Efficacy: 93.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.16' x L: 2.74' x H: 0')
CIE Type: Direct

Input Watts (W): 85.1
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9968
Total Harmonic Distortion (THDi): 0.064
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P931409

CATALOG NUMBER: DFN2DS-TR3F0-080DS835-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			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°	3879	3879	3879
5°	3894	3838	3860
10°	3871	3799	3818
15°	3823	3749	3746
20°	3755	3676	3672
25°	3687	3585	3585
30°	3601	3502	3471
35°	3520	3401	3351
40°	3418	3301	3238
45°	3318	3202	3123
50°	3209	3098	2988
55°	3096	2979	2868
60°	2969	2835	2730
65°	2834	2692	2568
70°	2661	2519	2400
75°	2420	2320	2263
80°	2149	2083	1976
85°	1753	1671	1498

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3318 cd/sqm

TEST NUMBER: P931409

CATALOG NUMBER: DFN2DS-TR3F0-080DS835-FLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	293.0	3.7
10°-20°	824.3	10.4
20°-30°	1211.5	15.3
30°-40°	1407.0	17.8
40°-50°	1405.3	17.7
50°-60°	1225.4	15.5
60°-70°	905.8	11.4
70°-80°	512.5	6.5
80°-90°	135.3	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°	2328.8	29.4
0°-40°	3735.8	47.2
0°-60°	6366.4	80.4
0°-90°	7920.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7920.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3113	3113	3113	3113	3113	
5°	3113	3101	3068	3092	3086	295
15°	2963	2946	2906	2918	2904	835
25°	2682	2658	2607	2613	2607	1234
35°	2314	2284	2236	2218	2203	1445
45°	1883	1862	1817	1784	1772	1453
55°	1425	1407	1371	1335	1320	1274
65°	961	943	913	886	871	950
75°	503	497	482	464	470	537
85°	123	120	117	108	105	144
90°	0	0	0	0	0	

TEST NUMBER: P931409

CATALOG NUMBER: DFN2DS-TR3F0-080DS835-FLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3112.8	3112.8	3112.8	3112.8	3112.8
2.5°	3130.9	3116.0	3083.0	3112.8	3107.1
5°	3112.8	3101.1	3068.1	3091.9	3086.2
7.5°	3091.9	3074.1	3041.1	3065.2	3059.2
10°	3059.2	3038.2	3002.3	3026.1	3017.3
12.5°	3014.1	2996.3	2960.4	2975.3	2969.3
15°	2963.3	2945.5	2906.4	2918.5	2903.6
17.5°	2900.4	2882.6	2843.5	2858.5	2843.5
20°	2831.5	2813.7	2771.8	2780.7	2768.9
22.5°	2762.9	2735.9	2696.8	2696.8	2690.8
25°	2681.9	2658.1	2607.3	2613.0	2607.3
27.5°	2592.0	2571.1	2532.3	2523.4	2508.5
30°	2502.5	2478.3	2433.6	2424.7	2412.6
32.5°	2406.6	2388.8	2340.8	2322.7	2310.7
35°	2313.8	2284.0	2236.0	2217.9	2203.0
37.5°	2209.0	2182.0	2134.1	2113.1	2098.2
40°	2101.4	2077.2	2029.3	2002.6	1990.5
42.5°	1996.6	1972.4	1924.8	1894.6	1876.9
45°	1882.9	1861.9	1816.8	1784.1	1772.1
47.5°	1772.1	1751.1	1703.1	1670.1	1652.3
50°	1655.2	1640.3	1598.3	1556.4	1541.5
52.5°	1541.5	1520.5	1481.8	1448.8	1427.8
55°	1424.9	1406.8	1371.0	1335.1	1320.1
57.5°	1308.1	1293.2	1254.1	1218.2	1206.1
60°	1191.2	1179.5	1137.5	1104.5	1095.6
62.5°	1077.5	1056.6	1026.7	996.9	984.8
65°	961.0	942.9	913.0	886.0	871.1
67.5°	841.2	826.0	799.3	778.4	766.3
70°	730.4	718.3	691.4	670.4	658.6
72.5°	616.7	604.7	589.7	568.8	559.9
75°	502.7	497.0	481.8	464.0	470.0
77.5°	401.1	389.0	383.0	374.1	365.2
80°	299.5	296.3	290.3	281.4	275.3
82.5°	203.6	203.6	200.7	188.6	188.6
85°	122.6	119.7	116.9	107.7	104.8
87.5°	54.0	48.0	41.9	33.0	29.9
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P931409

CATALOG NUMBER: DFN2DS-TR3F0-080DS835-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	15.99	17.60	16.36	17.92	18.23	15.55	17.16	15.91	17.47	17.79
	3H	17.74	19.20	18.12	19.52	19.88	17.25	18.71	17.63	19.03	19.39
	4H	18.39	19.76	18.79	20.11	20.48	17.89	19.26	18.29	19.61	19.99
	6H	18.86	20.13	19.27	20.49	20.88	18.36	19.62	18.77	19.99	20.38
	8H	19.00	20.21	19.43	20.60	21.00	18.50	19.71	18.92	20.10	20.50
	12H	19.09	20.25	19.52	20.63	21.06	18.58	19.74	19.01	20.12	20.55
4H	2H	16.55	17.92	16.95	18.27	18.65	16.20	17.57	16.60	17.92	18.29
	3H	18.53	19.67	18.94	20.07	20.47	18.12	19.27	18.53	19.66	20.07
	4H	19.30	20.34	19.74	20.75	21.19	18.88	19.92	19.31	20.33	20.77
	6H	19.90	20.81	20.36	21.25	21.70	19.47	20.37	19.92	20.81	21.27
	8H	20.09	20.94	20.55	21.38	21.84	19.65	20.50	20.11	20.94	21.41
	12H	20.22	20.98	20.70	21.46	21.93	19.77	20.53	20.25	21.01	21.48
8H	4H	19.58	20.42	20.04	20.87	21.33	19.20	20.05	19.66	20.49	20.96
	6H	20.29	21.00	20.79	21.48	21.96	19.91	20.61	20.40	21.10	21.58
	8H	20.55	21.18	21.06	21.69	22.17	20.16	20.79	20.67	21.30	21.78
	12H	20.75	21.31	21.26	21.80	22.36	20.34	20.90	20.84	21.39	21.95
12H	4H	19.60	20.36	20.08	20.84	21.31	19.24	20.00	19.72	20.47	20.94
	6H	20.34	20.97	20.85	21.48	21.96	19.97	20.60	20.48	21.11	21.59
	8H	20.65	21.21	21.16	21.70	22.26	20.27	20.83	20.78	21.32	21.88