

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P334891

Luminaire Tested: **S124IW-S770U940-4F0-1E-UDD-1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334891  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124IW-S770U940-4F0-1E-UDD-1  
Description: DEFINE 4 INDIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER  
WALL MOUNT, 770 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2376.2 lumens  
Efficiency: N/A  
Efficacy: 169.7 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Indirect

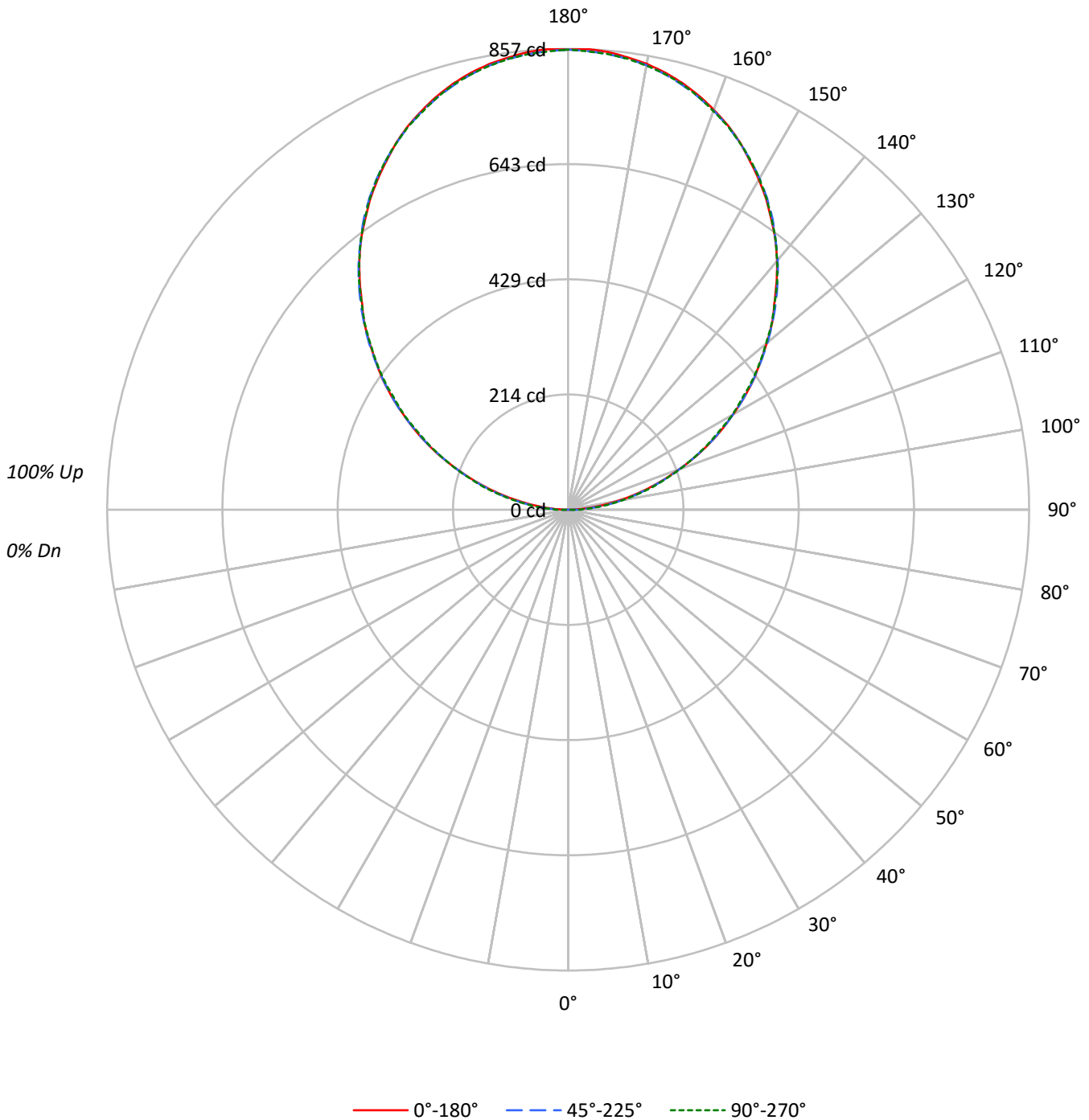
Input Watts (W): 14  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	95	95	95	95	81	81	81	81	56	56	56	32	32	32	10	10	10	0
1	87	83	79	76	74	71	68	65	48	47	45	28	27	26	9	9	8	0
2	79	72	66	62	67	62	57	53	42	40	37	24	23	22	8	7	7	0
3	72	63	56	51	61	54	49	44	37	34	31	21	20	18	7	6	6	0
4	65	56	48	43	56	48	42	37	33	29	26	19	17	16	6	6	5	0
5	60	49	42	36	51	42	36	32	29	25	22	17	15	13	5	5	4	0
6	55	44	36	31	47	38	32	27	26	22	19	15	13	11	5	4	4	0
7	50	39	32	27	43	34	28	23	23	19	17	14	11	10	4	4	3	0
8	47	35	28	23	40	30	24	20	21	17	14	12	10	9	4	3	3	0
9	43	32	25	20	37	27	22	18	19	15	13	11	9	8	4	3	3	0
10	40	29	22	18	34	25	19	16	17	14	11	10	8	7	3	3	2	0

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	0	0	0
5°	0	0	0
10°	0	0	0
15°	0	0	0
20°	0	0	0
25°	0	0	0
30°	0	0	0
35°	0	0	0
40°	0	0	0
45°	0	0	0
50°	0	0	0
55°	0	0	0
60°	0	0	0
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	0.0	0.0
10°-20°	0.0	0.0
20°-30°	0.0	0.0
30°-40°	0.0	0.0
40°-50°	0.0	0.0
50°-60°	0.0	0.0
60°-70°	0.0	0.0
70°-80°	0.0	0.0
80°-90°	1.8	0.1
90°-100°	55.8	2.3
100°-110°	167.1	7.0
110°-120°	283.8	11.9
120°-130°	374.3	15.8
130°-140°	420.4	17.7
140°-150°	413.2	17.4
150°-160°	347.5	14.6
160°-170°	231.2	9.7
170°-180°	81.0	3.4
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	1.8	0.1
90°-120°	506.7	21.3
90°-150°	1714.6	72.2
90°-180°	2374.0	99.9
0°-180°	2376.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	0	0	0	0	0	
5°	0	0	0	0	0	0
15°	0	0	0	0	0	0
25°	0	0	0	0	0	0
35°	0	0	0	0	0	0
45°	0	0	0	0	0	0
55°	0	0	0	0	0	0
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	2	9	15	18	20	3
95°	40	46	50	52	52	43
105°	154	155	158	160	162	164
115°	289	289	287	287	286	285
125°	420	420	420	418	417	375
135°	542	546	546	545	543	419
145°	658	661	662	661	659	412
155°	754	754	754	756	754	347
165°	821	819	818	822	819	232
175°	854	851	850	855	850	81
180°	856	856	856	856	856	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	0.0	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0	0.0
5°	0.0	0.0	0.0	0.0	0.0
7.5°	0.0	0.0	0.0	0.0	0.0
10°	0.0	0.0	0.0	0.0	0.0
12.5°	0.0	0.0	0.0	0.0	0.0
15°	0.0	0.0	0.0	0.0	0.0
17.5°	0.0	0.0	0.0	0.0	0.0
20°	0.0	0.0	0.0	0.0	0.0
22.5°	0.0	0.0	0.0	0.0	0.0
25°	0.0	0.0	0.0	0.0	0.0
27.5°	0.0	0.0	0.0	0.0	0.0
30°	0.0	0.0	0.0	0.0	0.0
32.5°	0.0	0.0	0.0	0.0	0.0
35°	0.0	0.0	0.0	0.0	0.0
37.5°	0.0	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0	0.0
42.5°	0.0	0.0	0.0	0.0	0.0
45°	0.0	0.0	0.0	0.0	0.0
47.5°	0.0	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0	0.0
52.5°	0.0	0.0	0.0	0.0	0.0
55°	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	2.0	9.3	14.6	18.5	19.9
92.5°	17.2	25.8	29.1	31.1	31.8
95°	39.7	45.7	50.3	52.3	52.3
97.5°	63.5	68.8	74.1	76.8	76.8
100°	92.7	95.3	101.3	102.6	102.6
102.5°	123.1	123.8	129.1	131.0	131.7
105°	154.2	154.9	157.5	159.5	161.5
107.5°	186.6	187.3	188.0	190.6	189.9
110°	219.7	221.0	220.4	219.1	221.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	254.1	254.1	252.8	252.8	252.8
115°	288.6	288.6	287.2	286.6	285.9
117.5°	321.0	321.0	320.3	318.3	316.3
120°	353.4	356.1	354.1	350.8	352.1
122.5°	387.2	387.8	387.2	385.2	381.9
125°	420.3	420.3	419.6	418.3	416.9
127.5°	450.0	452.0	450.7	449.4	448.7
130°	481.8	483.8	483.8	482.5	479.8
132.5°	514.2	515.6	514.9	513.6	512.9
135°	542.0	546.0	546.0	544.7	542.7
137.5°	573.1	575.1	576.4	574.5	575.1
140°	604.2	605.6	605.6	604.9	604.2
142.5°	632.7	634.0	633.4	633.4	633.4
145°	658.5	661.2	661.8	661.2	659.2
147.5°	685.0	688.3	687.6	687.0	686.3
150°	708.8	711.5	711.5	711.5	710.8
152.5°	731.3	732.6	733.3	735.3	733.3
155°	754.5	754.5	753.8	756.5	753.8
157.5°	774.3	773.0	773.0	775.0	773.0
160°	791.5	790.9	790.2	792.2	788.9
162.5°	807.4	805.4	804.8	808.7	805.4
165°	821.3	819.3	818.0	822.0	819.3
167.5°	832.6	829.9	829.9	833.9	829.9
170°	841.8	838.5	839.2	843.2	838.5
172.5°	848.4	845.8	845.8	850.4	845.8
175°	854.4	851.1	850.4	855.1	850.4
177.5°	857.1	853.7	853.7	858.4	853.1
180°	855.7	855.7	855.7	855.7	855.7

(END OF REPORT)