

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: P242970

Luminaire Tested: **S121DR-H880D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242970
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-47)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121DR-H880D940-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2939.2 lumens
Efficiency: N/A
Efficacy: 93.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.09' x L: 3.88' x H: 0')
CIE Type: Direct

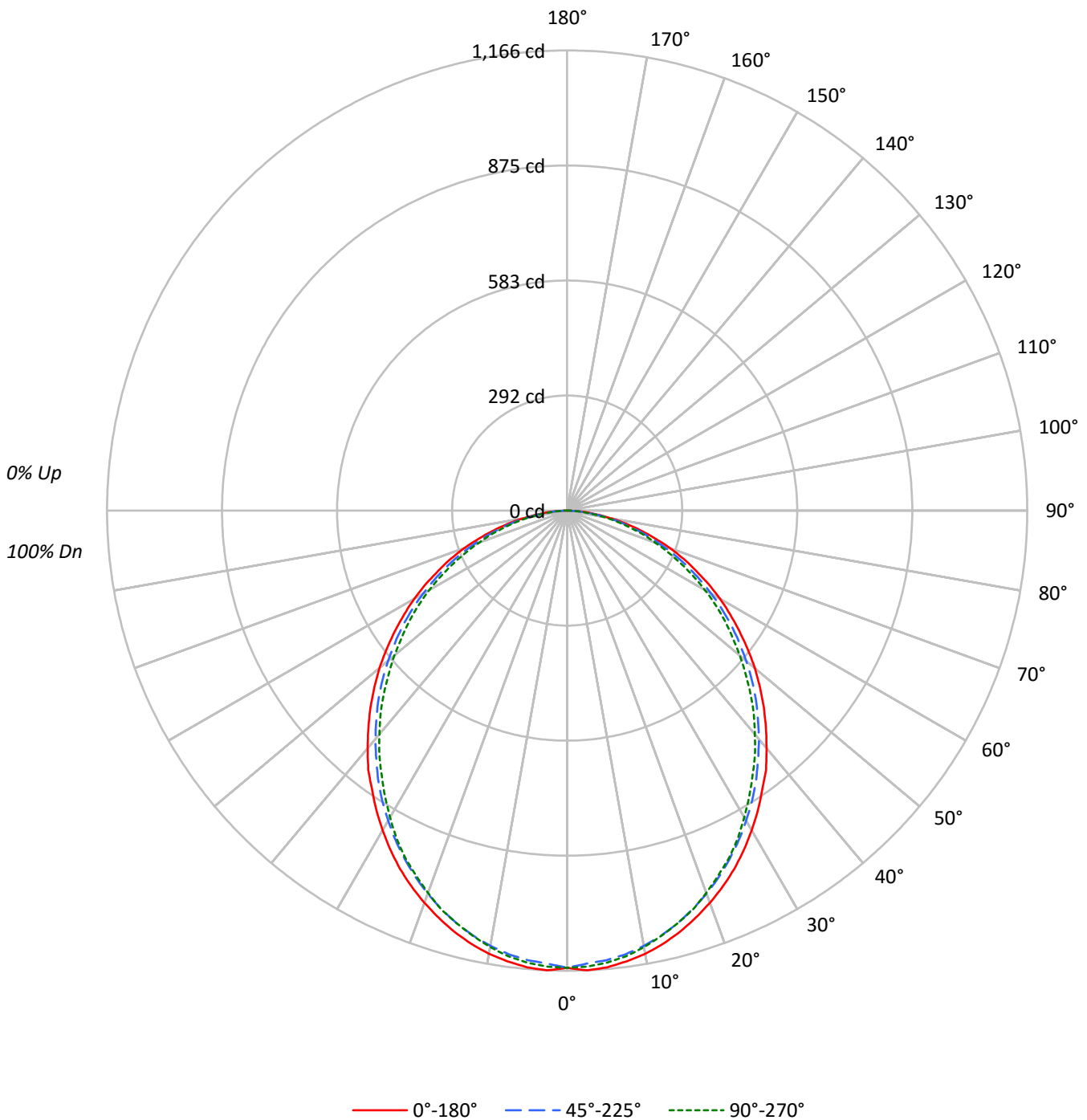
Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P242970

CATALOG NUMBER: S121DR-H880D940-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot





TEST NUMBER: P242970

CATALOG NUMBER: S121DR-H880D940-X4F0-XX-UDD-F-W

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	34326	34326	34326
5°	34555	34011	34201
10°	34308	33694	33790
15°	33890	33199	33199
20°	33347	32569	32502
25°	32752	31839	31732
30°	31996	31042	30710
35°	31187	30178	29631
40°	30402	29237	28615
45°	29516	28343	27534
50°	28607	27270	26330
55°	27513	26237	25235
60°	26530	25007	23923
65°	25219	23634	22358
70°	23902	21952	20558
75°	21877	19908	18683
80°	19059	17592	16312
85°	16420	13497	11321



TEST NUMBER: P242970

CATALOG NUMBER: S121DR-H880D940-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.2	3.7
10°-20°	307.2	10.5
20°-30°	451.6	15.4
30°-40°	524.1	17.8
40°-50°	522.7	17.8
50°-60°	455.0	15.5
60°-70°	334.9	11.4
70°-80°	186.5	6.3
80°-90°	48.0	1.6
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°	867.9	29.5
0°-40°	1392.0	47.4
0°-60°	2369.8	80.6
0°-90°	2939.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2939.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1158	1158	1158	1158	1158	
5°	1162	1155	1144	1152	1150	110
15°	1105	1098	1082	1087	1082	311
25°	1002	990	974	974	971	461
35°	862	852	834	825	819	540
45°	704	692	676	662	657	543
55°	533	523	508	494	488	477
65°	360	352	337	323	319	357
75°	191	182	174	166	163	203
85°	48	45	40	34	33	56
90°	0	0	0	0	0	



TEST NUMBER: P242970

CATALOG NUMBER: S121DR-H880D940-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1158.5	1158.5	1158.5	1158.5	1158.5
2.5°	1166.0	1159.6	1148.9	1158.5	1156.4
5°	1161.8	1155.3	1143.5	1152.1	1149.9
7.5°	1152.1	1146.7	1133.8	1141.4	1139.2
10°	1140.3	1133.8	1119.9	1126.3	1123.1
12.5°	1124.2	1118.8	1102.7	1108.1	1103.8
15°	1104.8	1098.4	1082.3	1086.6	1082.3
17.5°	1082.3	1075.9	1058.7	1061.9	1059.8
20°	1057.6	1049.0	1032.9	1035.1	1030.8
22.5°	1030.8	1021.1	1005.0	1005.0	1000.7
25°	1001.8	990.0	973.9	973.9	970.6
27.5°	969.6	958.8	941.6	939.5	936.3
30°	935.2	924.5	907.3	903.0	897.6
32.5°	899.8	888.0	871.9	864.3	859.0
35°	862.2	851.5	834.3	824.6	819.2
37.5°	827.8	812.8	794.5	786.0	781.7
40°	786.0	773.1	755.9	744.1	739.8
42.5°	745.2	733.3	715.1	703.3	700.1
45°	704.4	692.5	676.4	662.5	657.1
47.5°	662.5	650.7	634.6	620.6	613.1
50°	620.6	608.8	591.6	577.7	571.2
52.5°	576.6	568.0	549.7	536.9	528.3
55°	532.6	522.9	507.9	493.9	488.5
57.5°	489.6	481.0	464.9	449.9	446.7
60°	447.7	439.1	422.0	409.1	403.7
62.5°	403.7	395.1	379.0	366.1	360.8
65°	359.7	352.2	337.1	323.2	318.9
67.5°	318.9	309.2	295.3	282.4	277.0
70°	275.9	265.2	253.4	242.7	237.3
72.5°	233.0	224.4	214.7	204.0	201.9
75°	191.1	182.5	173.9	166.4	163.2
77.5°	151.4	145.0	138.5	131.0	128.8
80°	111.7	107.4	103.1	97.7	95.6
82.5°	78.4	75.2	68.7	64.4	62.3
85°	48.3	45.1	39.7	34.4	33.3
87.5°	22.5	18.3	14.0	11.8	10.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)