

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: P242203

Luminaire Tested: **S121RDR-S880D930-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242203
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-23)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121RDR-S880D930-X4F0-XX-UDD-F-W
Description: DEFINE 1 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2325.2 lumens
Efficiency: N/A
Efficacy: 66.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 0.92 / 1.09
Luminous Opening: Rectangular (W 0.09' x L: 3.88' x H: 0')
CIE Type: Direct

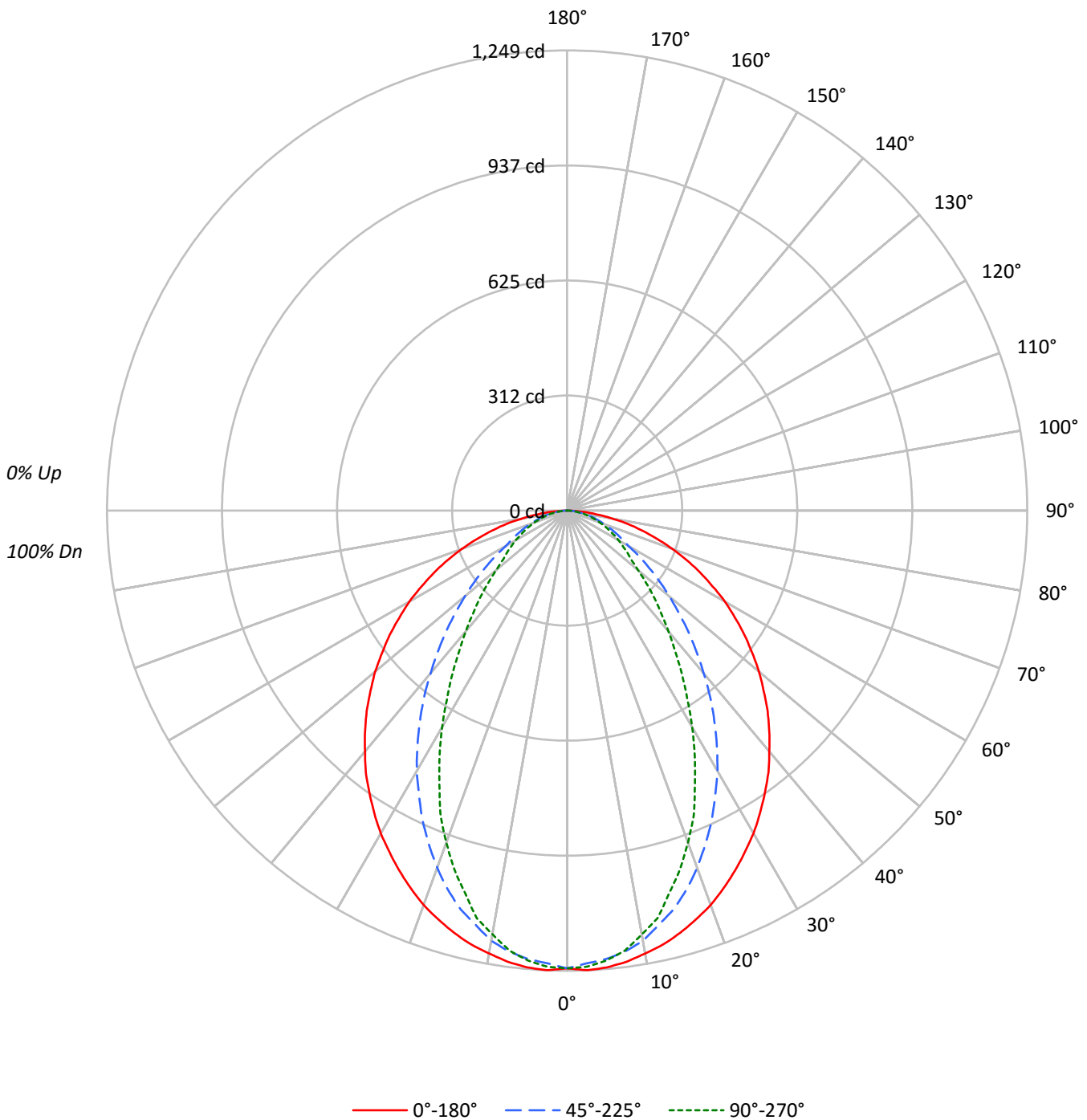
Input Watts (W): 34.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	100	100	100	100	100		
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87	87	87	87	87		
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75	75	75	75	75	75	75		
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65	65	65	65	65	65	65		
4	86	76	68	62	84	74	67	61	72	65	60	70	64	60	68	63	59	57	57	57	57	57	57	57		
5	80	68	60	54	78	67	60	54	65	59	53	63	57	53	62	56	52	50	50	50	50	50	50	50		
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45	45	45	45	45	45	45		
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40	40	40	40	40	40	40		
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37	37	37	37	37	37	37		
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33	33	33	33	33	33	33		
10	58	45	38	33	56	45	37	33	44	37	33	43	37	32	42	36	32	31	31	31	31	31	31	31		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	36812	36812	36812
5°	37015	36337	36459
10°	36724	35662	35129
15°	36390	34350	32914
20°	35930	32521	30226
25°	35249	30355	26818
30°	34610	27925	23227
35°	33845	25197	19670
40°	33016	22318	16570
45°	32240	19472	13983
50°	31345	16677	11552
55°	30344	14072	10311
60°	29327	11396	9553
65°	27918	10278	8820
70°	26301	9278	8109
75°	24167	8449	7498
80°	21107	7457	6740
85°	17304	6357	5643



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.3	5.0
10°-20°	316.3	13.6
20°-30°	431.8	18.6
30°-40°	448.8	19.3
40°-50°	392.1	16.9
50°-60°	296.4	12.7
60°-70°	195.8	8.4
70°-80°	100.9	4.3
80°-90°	26.8	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°	864.4	37.2
0°-40°	1313.2	56.5
0°-60°	2001.8	86.1
0°-90°	2325.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2325.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1242	1242	1242	1242	1242	
5°	1244	1237	1222	1231	1226	118
15°	1186	1169	1120	1091	1073	334
25°	1078	1036	928	852	820	497
35°	936	853	697	582	544	585
45°	769	654	465	361	334	593
55°	587	446	272	207	200	525
65°	398	248	147	129	126	394
75°	211	98	74	68	66	225
85°	51	21	19	18	17	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1242.4	1242.4	1242.4	1242.4	1242.4
2.5°	1248.7	1242.4	1230.0	1241.4	1239.3
5°	1244.5	1237.3	1221.7	1231.0	1225.8
7.5°	1235.2	1226.9	1207.1	1210.2	1204.0
10°	1220.6	1211.3	1185.3	1180.1	1167.6
12.5°	1206.1	1191.5	1151.0	1140.6	1133.3
15°	1186.3	1168.6	1119.8	1090.7	1073.0
17.5°	1163.4	1139.5	1078.2	1038.7	1020.0
20°	1139.5	1108.3	1031.4	977.3	958.6
22.5°	1109.4	1073.0	980.4	916.0	897.3
25°	1078.2	1035.5	928.5	851.5	820.3
27.5°	1044.9	992.9	870.2	783.9	749.6
30°	1011.6	948.2	816.2	712.2	678.9
32.5°	974.2	903.5	755.9	646.7	607.2
35°	935.7	852.6	696.6	582.2	543.8
37.5°	897.3	805.8	637.3	521.9	481.4
40°	853.6	756.9	577.0	458.5	428.4
42.5°	812.0	706.0	519.9	409.6	377.4
45°	769.4	654.0	464.7	360.8	333.7
47.5°	723.6	603.0	410.7	318.2	291.1
50°	680.0	549.0	361.8	276.6	250.6
52.5°	632.1	498.0	316.1	233.9	219.4
55°	587.4	446.0	272.4	206.9	199.6
57.5°	539.6	396.1	231.9	187.1	178.8
60°	494.9	346.2	192.3	166.4	161.2
62.5°	445.0	298.4	167.4	147.6	142.4
65°	398.2	248.5	146.6	128.9	125.8
67.5°	351.4	205.9	126.8	112.3	109.2
70°	303.6	163.2	107.1	96.7	93.6
72.5°	256.8	124.8	89.4	81.1	79.0
75°	211.1	97.7	73.8	67.6	65.5
77.5°	170.5	74.9	58.2	53.0	52.0
80°	123.7	55.1	43.7	40.5	39.5
82.5°	84.2	37.4	31.2	29.1	27.0
85°	50.9	20.8	18.7	17.7	16.6
87.5°	20.8	9.4	8.3	7.3	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)