

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: P243560

Luminaire Tested: **S124RDR-H1020D927-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243560
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-65)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124RDR-H1020D927-X4F0-XX-UDD-F-W
Description: DEFINE 4 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3047.8 lumens
Efficiency: N/A
Efficacy: 96.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.1 / 1.25
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')
CIE Type: Direct

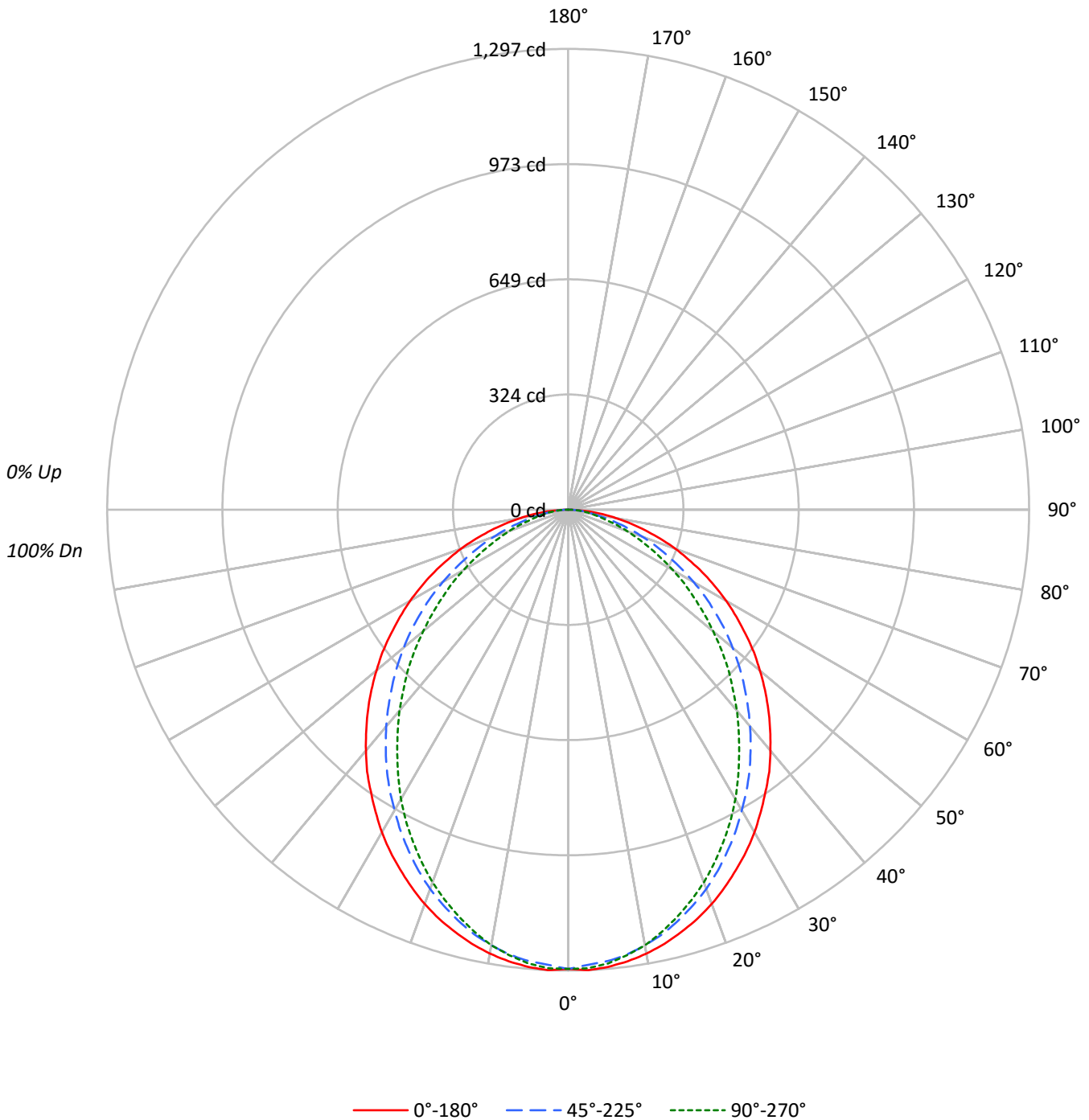
Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61
4	84	73	64	58	82	71	64	57	69	62	57	67	61	56	64	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36
8	62	49	41	35	61	49	41	35	47	40	35	46	39	35	45	39	34	33
9	58	45	37	32	57	45	37	32	44	37	32	42	36	31	41	36	31	30
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11489	11489	11489
5°	11524	11379	11439
10°	11450	11236	11236
15°	11324	11016	10911
20°	11171	10747	10557
25°	10964	10403	10123
30°	10760	10026	9653
35°	10506	9658	9098
40°	10272	9242	8567
45°	10013	8801	8010
50°	9735	8350	7361
55°	9432	7834	6712
60°	9140	7241	6037
65°	8748	6541	5277
70°	8330	5777	4587
75°	7700	4815	3733
80°	7033	3757	3419
85°	6221	3600	3406



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.6	4.0
10°-20°	339.5	11.1
20°-30°	492.2	16.2
30°-40°	561.1	18.4
40°-50°	545.9	17.9
50°-60°	458.6	15.0
60°-70°	319.5	10.5
70°-80°	165.0	5.4
80°-90°	44.6	1.5
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°	953.2	31.3
0°-40°	1514.3	49.7
0°-60°	2518.8	82.6
0°-90°	3047.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3047.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1292	1292	1292	1292	1292	
5°	1292	1288	1275	1285	1282	123
15°	1230	1221	1197	1195	1186	347
25°	1118	1097	1061	1045	1032	515
35°	968	939	890	857	838	606
45°	796	758	700	655	637	614
55°	609	570	506	454	433	545
65°	416	376	311	266	251	412
75°	224	190	140	117	109	239
85°	61	39	35	33	33	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1292.5	1292.5	1292.5	1292.5	1292.5
2.5°	1297.3	1293.4	1282.0	1292.5	1291.5
5°	1291.5	1287.7	1275.3	1284.9	1282.0
7.5°	1282.0	1277.2	1262.9	1269.6	1264.8
10°	1268.6	1263.9	1244.8	1249.6	1244.8
12.5°	1251.5	1244.8	1223.8	1224.8	1217.1
15°	1230.5	1220.9	1197.1	1195.2	1185.7
17.5°	1207.6	1195.2	1167.5	1162.8	1152.3
20°	1180.9	1165.6	1136.1	1125.6	1116.0
22.5°	1150.4	1132.2	1099.8	1087.4	1075.0
25°	1117.9	1096.9	1060.7	1045.4	1032.1
27.5°	1084.5	1059.7	1020.6	1001.6	988.2
30°	1048.3	1019.7	976.8	954.8	940.5
32.5°	1008.2	979.6	934.8	908.1	890.0
35°	968.2	938.6	890.0	856.6	838.4
37.5°	929.1	895.7	843.2	808.9	787.9
40°	885.2	849.9	796.5	757.4	738.3
42.5°	841.3	805.1	747.8	706.8	685.8
45°	796.5	758.3	700.1	655.3	637.2
47.5°	750.7	712.5	652.4	605.7	584.7
50°	704.0	665.8	603.8	552.3	532.3
52.5°	658.2	618.1	556.1	503.6	482.7
55°	608.6	569.5	505.5	454.0	433.1
57.5°	560.9	519.9	457.9	405.4	388.2
60°	514.1	473.1	407.3	356.7	339.6
62.5°	464.5	423.5	358.7	310.0	294.7
65°	415.9	375.8	311.0	266.1	250.9
67.5°	366.3	330.0	267.1	224.2	211.8
70°	320.5	279.5	222.3	185.0	176.5
72.5°	271.9	235.6	180.3	149.8	143.1
75°	224.2	189.8	140.2	117.3	108.7
77.5°	180.3	146.9	105.9	86.8	86.8
80°	137.4	107.8	73.4	68.7	66.8
82.5°	97.3	69.6	54.4	50.6	49.6
85°	61.0	39.1	35.3	33.4	33.4
87.5°	29.6	18.1	18.1	17.2	17.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)