

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: P231743

Luminaire Tested: **S123-RDR-2-27-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231743
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33914)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123-RDR-2-27-X-0048-1-U-DD-1-W
Description: DEFINE 3 LED LINEAR REGRESSED DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2795.8 lumens
Efficiency: N/A
Efficacy: 65.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.07 / 1.23
Luminous Opening: Rectangular (W 0.22' x L: 3.92' x H: 0')
CIE Type: Direct

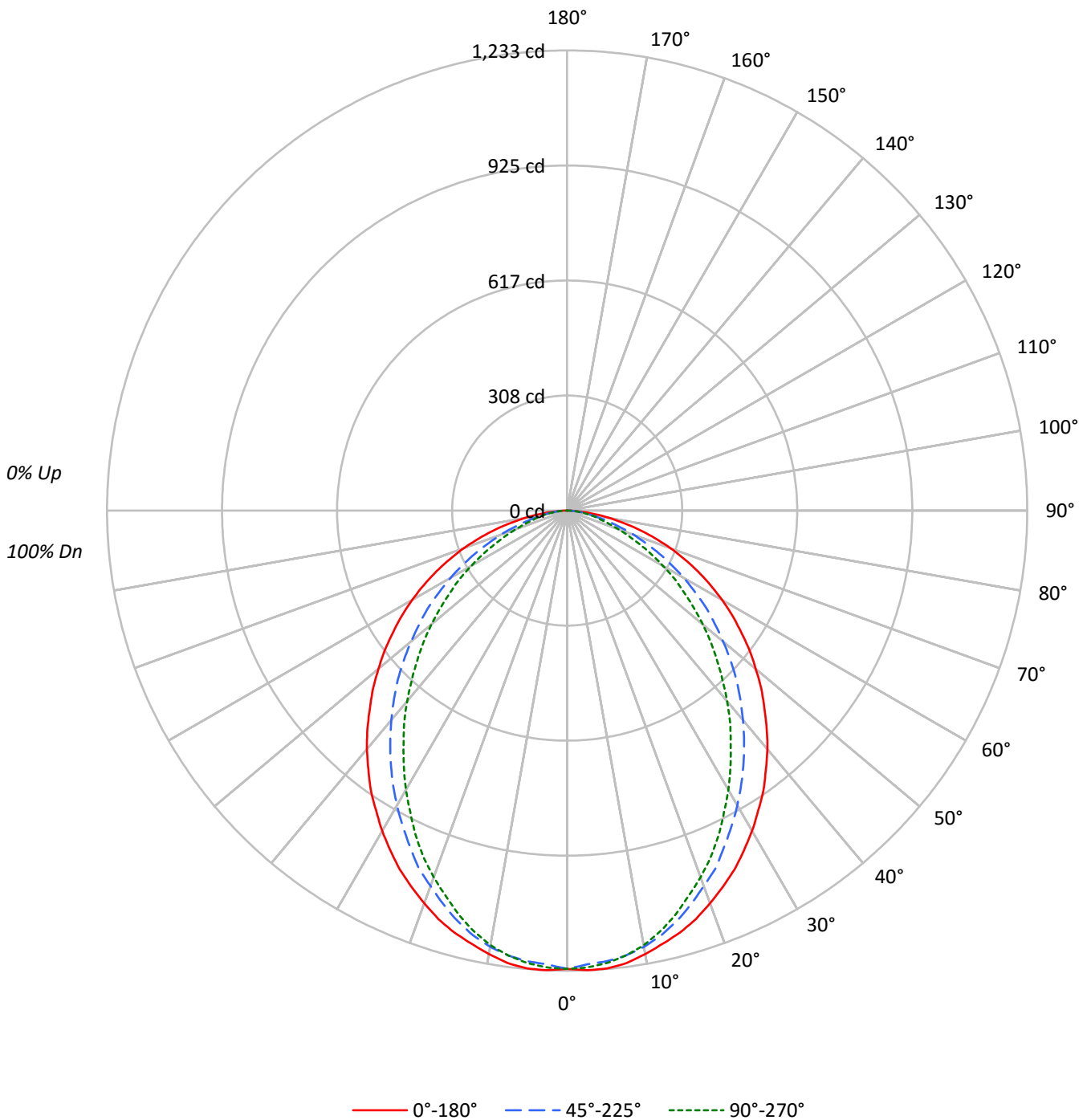
Input Watts (W): 42.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	110	105	101	98	107	103	99	96	99	96	93	95	93	90	91	89	88					86				
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75					73				
3	92	82	74	68	90	81	73	68	78	72	67	75	70	65	72	68	64					62				
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56					54				
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49					47				
6	72	60	51	45	71	59	51	45	57	50	44	55	49	44	54	48	44					42				
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	43	39					37				
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35					33				
9	59	46	38	33	57	45	38	32	44	37	32	43	37	32	42	36	32					30				
10	55	42	35	30	54	42	35	30	41	34	29	40	34	29	39	33	29					28				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15112	15112	15112
5°	15214	14977	15036
10°	15075	14835	14775
15°	14910	14497	14283
20°	14666	14020	13690
25°	14407	13509	13036
30°	14086	12959	12277
35°	13773	12383	11480
40°	13415	11775	10713
45°	13007	11167	9891
50°	12629	10445	9087
55°	12220	9772	8199
60°	11800	8901	7306
65°	11267	7906	6264
70°	10594	6830	5275
75°	9596	5483	4399
80°	8257	4430	4089
85°	6453	3728	3558



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.7	4.1
10°-20°	322.0	11.5
20°-30°	462.6	16.5
30°-40°	520.7	18.6
40°-50°	500.8	17.9
50°-60°	415.1	14.8
60°-70°	283.2	10.1
70°-80°	140.7	5.0
80°-90°	34.9	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°	900.3	32.2
0°-40°	1421.0	50.8
0°-60°	2336.9	83.6
0°-90°	2795.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2795.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1228	1228	1228	1228	1228	
5°	1232	1227	1212	1221	1217	117
15°	1170	1159	1138	1134	1121	330
25°	1061	1043	995	974	960	488
35°	917	882	824	785	764	572
45°	747	708	642	589	568	577
55°	570	525	455	401	382	510
65°	387	339	272	230	215	383
75°	202	162	115	96	92	214
85°	46	30	26	26	25	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1227.9	1227.9	1227.9	1227.9	1227.9
2.5°	1232.7	1227.9	1217.1	1227.9	1225.5
5°	1231.5	1226.7	1212.3	1220.7	1217.1
7.5°	1223.1	1217.1	1202.7	1207.5	1202.7
10°	1206.3	1202.7	1187.1	1189.5	1182.3
12.5°	1188.3	1182.3	1165.4	1165.4	1154.6
15°	1170.2	1159.4	1137.8	1134.2	1121.0
17.5°	1147.4	1140.2	1105.4	1099.4	1082.5
20°	1119.8	1106.6	1070.5	1059.7	1045.3
22.5°	1090.9	1075.3	1038.1	1020.1	1005.6
25°	1060.9	1042.9	994.8	974.4	960.0
27.5°	1026.1	1005.6	954.0	929.9	910.7
30°	991.2	966.0	911.9	883.1	863.9
32.5°	952.8	926.3	868.7	832.6	814.6
35°	916.7	881.9	824.2	784.6	764.1
37.5°	874.7	839.8	778.6	734.1	717.3
40°	835.0	797.8	732.9	686.0	666.8
42.5°	791.8	752.1	687.2	638.0	616.4
45°	747.3	707.7	641.6	588.7	568.3
47.5°	705.3	663.2	593.5	541.9	522.6
50°	659.6	618.8	545.5	493.8	474.6
52.5°	616.4	570.7	498.6	447.0	427.7
55°	569.5	525.0	455.4	401.3	382.1
57.5°	526.3	479.4	406.1	355.6	342.4
60°	479.4	431.3	361.6	313.6	296.8
62.5°	433.7	383.3	314.8	270.3	255.9
65°	386.9	338.8	271.5	229.5	215.1
67.5°	341.2	294.4	227.1	192.2	179.0
70°	294.4	248.7	189.8	156.2	146.6
72.5°	247.5	205.5	150.2	123.8	116.5
75°	201.8	162.2	115.3	96.1	92.5
77.5°	156.2	123.8	85.3	75.7	74.5
80°	116.5	85.3	62.5	57.7	57.7
82.5°	78.1	52.9	43.3	42.1	40.9
85°	45.7	30.0	26.4	26.4	25.2
87.5°	19.2	12.0	12.0	12.0	10.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)